

# 2021 AMA Winter Academic Conference

**The Human Side of Marketing  
in an Age of Digital Transformation**

February 17-19 | Virtual

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## PROCEEDINGS

**Volume 32**

Editors:

**Alan Malter**  
University of Illinois at Chicago

**Stacey Menzel Baker**  
Creighton University

**Subin Im**  
Yonsei University  
School of Business,  
Seoul, South Korea



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## Conference Tracks and Chairs

### Marketplace Diversity

*Benet DeBerry-Spence, University of Illinois at Chicago, Marie Yeh, Loyola University-Baltimore and Kevin Thomas, Marquette University*

### Sustainability and Social Responsibility

*Ela Veresiu, York University, Canada and Ana Babic Rosario, University of Denver*

### Public Policy, Macromarketing and Ethics

*Track Chairs: Kristen Walker, California State University, Northridge, Meike Eilert, University of Kentucky and Foo Nin Ho, San Francisco State University*

### Sales Management and Personal Selling

*Dawn Deeter-Schmelz, Kansas State University and Edward Nowlin, Kansas State University*

### Advertising, Promotion and Marketing Communications

*Nancy Wong, University of Wisconsin- Madison, and Anjala Krishen, University of Nevada-Las Vegas*

### Marketing Strategy

*Alok Saboo, Georgia State University and Kimberly Whitler, University of Virginia (Darden)*

### Channels and Supply Chain Management

*Charles Ingene, University of Oklahoma and Alok Kumar, University of Nebraska*

### Consumer Psychology

*Jeffrey Parker, University of Illinois at Chicago and Elizabeth Webb, Colorado State University*

### Consumption, Markets, and Culture

*Tonya Williams Bradford, University of California-Irvine and Meredith Rhoads Thomas, Florida State University*

### Branding and Brand Management

*Lan Chaplin, University of Illinois at Chicago and Ayalla Ruvio, Michigan State University*

### International and Cross-Cultural Marketing

*Goksel Yalcinkaya, University of New Hampshire and Samantha Cross, Iowa State University*

### Services, Retailing and Entertainment

*Yong Liu, University of Arizona, Lauren Beitelspacher, Babson College and Martin Mende, Florida State University*

### Product Development and Innovation

*Anna Cui, University of Illinois at Chicago and Ashish Sood, University of California, Riverside*

### Digital and Social Media Marketing

*Sue Ryung Chang, Yonsei University and Anindita Charkravarty, University of Georgia*

### Customer Insights from Data Analytics, AI and Machine Learning

*Neeraj Bharadwaj, University of Tennessee and Raoul Kubler, University of Munster, Germany*

## Foreword

Welcome to the 2021 AMA Winter Academic Conference! Though we are not able to meet in person over research presentations or share good conversation over coffee and tea, we are still grateful for the opportunity to meet virtually with friends and colleagues from around the world and to continue sharing our passion for marketing scholarship. When conference co-chairs Alan Malter, Stacey Menzel Baker, and Subin Im met in the bright sunshine last February to plan this event at the 2020 Winter AMA conference in San Diego, there were already troubling signs on the horizon, as Lunar New Year celebrations had been greatly curtailed in China and colleagues from East Asia were unable to travel to the conference. But we never anticipated how the year ahead would unfold and definitely could not foresee the impending global pandemic, political turmoil, and civil unrest over issues of diversity, inclusion, and equity that would reverberate throughout our society and challenge us in every way imaginable. This series of unprecedented shocks has prompted all marketers to rethink our roles in academia and society.

Prior to the pandemic, marketing scholarship and practice were already shifting rapidly toward digital technology and automation. We sensed that the human element in marketing was getting lost in the excitement over the tantalizing possibilities offered by artificial intelligence and Big Data. The theme we selected for the 2021 Winter AMA conference, “The Human Side of Marketing in the Age of Digital Transformation,” aims to encourage our discipline to renew its focus on the important and irreplaceable role that humans will continue to play in marketing and society, even as our world becomes increasingly (but never completely) digital.

The digital revolution places marketing scholars center stage in a great transformation, as recorders of change, developers of theoretical discourses to explain change, and contributors to new waves of change. While many digital advances have expanded human potential, not all changes have resulted in positive outcomes. The current global COVID-19 pandemic has highlighted the sharp divide between the myriad benefits of digital technologies and the inherent risks in overdependence on these technologies, exposing many points of weakness and vulnerability in the marketplace.

Digital technology enables businesses and consumers to deliver and receive customized solutions that address unmet needs, to work and engage in marketing exchanges 24 hours a day from anywhere in the world, to experience endless opportunities for social interaction and entertainment, to broaden possibilities for product innovation, to revolutionize marketing research and teaching, and to increase productivity and performance. Yet the same digital revolution has a dark side, as its myriad benefits are not shared by all individuals, groups, or institutions in society. For example, the technology required for customized digital solutions is not universally available or accessible, and productivity and performance can be hindered by obsessive, and sometimes excessive, focus on automation. Therefore, the plenary, competitive paper, special topic, and poster sessions at the 2021 AMA Winter Academic Conference explore a broad range of potential benefits and costs of 21st-century technology. Overall, the conference program renews our focus on the human side of marketing amidst accelerating digital transformation.

As part of the renewed focus on the human side of marketing, the 2021 Winter AMA Conference features the first-ever conference track on marketplace diversity. Additional tracks focus on improving societal welfare, including tracks on sustainability and social responsibility, and on public policy, macromarketing, and ethics. The conference also includes tracks on new developments in traditional areas of managerial marketing, including marketing strategy; channels and supply chain management; sales management and personal selling; product development and innovation; branding and brand management; advertising, promotion, and marketing communications; services, retailing and entertainment; and international and cross-cultural marketing. Other tracks study the consumer experience using different perspectives and research methods, including tracks on consumer psychology, as well as consumption, markets, and culture. And though the conference theme calls for a renewed emphasis on the human side of marketing, it remains important to continue to examine the rapidly growing digital side of marketing and marketing research; thus, we include tracks on digital and social media marketing, and on customer insights from data analytics, artificial intelligence, and machine learning.

We would like to thank all of the track chairs who graciously organized the tracks, managed the review process, and proposed unique special topic sessions. We are especially thankful to all the volunteer reviewers, special session organizers, and hundreds of authors from around the world who submitted their research to the conference. We also thank Aric Rindfleisch, president of the AMA Academic Council, who entrusted us with the task of organizing this conference, and supported and encouraged us throughout the process. We greatly appreciate the AMA Academic Council, and we are especially indebted to Monica Gerhardt, Matt Weingarden, and all the AMA staff who made this conference possible.

Though we would have preferred to see all of you in person, and on the beach, at the original conference venue in St. Petersburg, Florida, we are grateful for the virtual opportunity to continue the decades-long tradition of outstanding AMA Winter conferences. Thank you for attending the virtual conference from your homes across the globe, and for continuing to build a strong and vibrant academic community. We look forward to reconnecting with all of you in person soon, as YOU are the human side of academic marketing that makes this event and our discipline so exciting!

Sincerely,

The Conference Cochairs:

Alan J. Malter, University of Illinois at Chicago

Stacey Menzel Baker, Creighton University

Subin Im, Yonsei University

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Chemical Technology  
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Oklahoma  
Chen Zhou, University of South Carolina  
Mengzhou Zhuang, University of Hong  
Kong  
Robert Zniva, Salzburg University of  
Applied Sciences & WU Vienna

## Best Paper in Conference

### How Interorganizational Strategic Behavior Impacts the Likelihood of a Product Recall

**Julian Schulte and David Bendig, WWU Münster**

## Best Papers in Track

### Advertising, Promotion and Marketing Communications

Destination-Based Advertising: Altering Planned Behaviors

*Hamid Shirdastian, Concordia University*

*Boris Bartikowski, Kedge Business School*

*Michel Laroche, Concordia University*

*Marie-Odile Richard, State University of New York Polytechnic Institute*

### Branding and Brand Management

Building Brand Attachment through Anthropomorphic Brand Design

*Ying Ying Li, Oklahoma State University*

*Kevin Voss, Oklahoma State University*

### Channels and Supply Chain Management

How Interorganizational Strategic Behavior Impacts the Likelihood of a Product Recall

*Julian Schulte, WWU Münster*

*David Bendig, WWU Münster*

### Consumer Psychology

How Mere Manager Response Influences Consumer Decision Making

*Vincentia Yuen, University of Miami*

*Michael Tsiros, University of Miami*

Consumption, Markets, and Culture

Blue or Black: Mask Colors and Trustworthiness

*Shubin Yu, Peking University HSBC Business School*

*Changxu Li, Peking University HSBC Business School*

### Customer Insights from Data Analytics, AI and Machine Learning

The Effects of Investors' Sense of Control and Perceived Humanization on the Adherence to Robo-Advisors.

*Kuan-Chou Ko, National Taiwan University*

*Shino Uchikata, National Taiwan University*

*Shian-ko Liu, National Taiwan University*

### Digital and Social Media Marketing

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*Tinka Krüger, Kiel University*

*Ipek Nibat, Grenoble Ecole de Management*

*Robert Mai, Grenoble Ecole de Management*

*Olivier Trendel, Grenoble Ecole de Management*

*Wassili Lasarov, Kiel University*

*Stefan Hoffmann, Kiel University*

## **International and Cross-Cultural Marketing**

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*Magnus Hultman, University of Leeds*

*Abbie Iveson, University of Leeds*

*Pejvak Oghazi, Södertörn University*

*Aristeidis Theotokis, University of Leeds*

## **Marketing Strategy**

Breaking the News: How Does CEO Media Coverage Influence Consumers and Shareholder Perceptions?

*Samuel Staebler, Tilburg University*

*Prachi Gala, Elon University*

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The Effects of Multiple Identity Attributes of Minority Endorsers in Advertising

*Anna Rößner, European University Viadrina*

## **Product Development and Innovation**

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*Ben Lee, Indiana University*

*Vivek Astvansh, Indiana University*

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*Ruth Bolton, Arizona State University*

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Internal Marketing under the Platform Era: The Influence of Gamification App Design on Mobile Service Providers' Performance

*Changxu Li, Peking University HSBC Business School*

*WeiMing Ye, Peking University HSBC Business School*

*Shubin Yu, Peking University HSBC Business School*

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*Nathan Warren, University of Oregon*

*Sara Hanson, University of Richmond*

*Hong Yuan, University of Oregon*

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The Effect of Green Acquisitions on Firm Value

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# **Marketplace Diversity**

# **Branding of Software Products: Should we Specialize or Diversify?**

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## **Abstract**

In this study, we investigate the salience of providing utilitarian, hedonic and social features on brand loyalty of three different types of software products – Flow (a utilitarian software), SnowRunner (a computer game) and TikTok (a video sharing social networking software). We found that while the focus on providing primary value is important, diversifying the features to provide secondary values such as hedonic and social values in utilitarian software had a significantly higher impact on brand loyalty due to the multiplier effect.

## **Statement of Contribution**

This findings of this study empirically demonstrate that users are loyal to products that are useful, exciting and also socially engaging. Therefore, product managers should diversify features that provide all three types of values HV, UV and SV rather than specializing only on the one pertinent to the product type as the various values have additive as well as multiplicative effect on brand loyalty.

## Introduction

Users of products and services seek a complete experience, an experience that includes not only achieving well-defined functional goals, but also involves gratifying the senses and generating positive affective response (Bly, Cook, Bickmore, Churchill, and Sullivan, 1998; Venkatesh and Brown, 2001). The stronger and more varied the dimensions of their experience the more will be its impacts on consumer outcomes such as their loyalty to the brand (Fombrun, 2001; Brakus, Schmitt and Zarantonello, 2009; Iglesias, Singh and Batista-Foguet, 2011).

But can these propositions be empirically validated? We investigated the question directly in an experimental study with users of software products. The findings of the study add to our existing knowledge of how value provided by products impact brand loyalty (BL). They also provide some potentially useful implications for product managers.

## Literature Review

### Software Products as Brands

A brand is traditionally defined as a name, term, sign, symbol, or design, or combination of them which is intended to identify the goods and service of one seller or group of sellers and differentiate them from those of competitors” (Kotler, 1991; p. 442). However, brands also take on metaphorical forms in addition to the material form. Beyond tangibles such logo, name and design, brands also incorporate intangibles such as identity associations and personality (Bastos and Levy, 2012).

Before the advent of branding as a business practice, products were sold in bulk. Typically, for example, general stores would sell commodities stored in sacks of grains and coffee beans, barrels of pickles, and slabs of cheese for consumers’ consumption. However, in the late nineteenth century products for sale were packaged and labelled, with the producers’ name and reputation becoming associated with additional value. However, with producers making similar claims about their products, it was suggested that a greater awareness should be created on the social and psychological nature of the products (Gardner and Levy, 1955, p. 34). And with the advent of TV, radio, print advertising and e-marketing in the twentieth century, branding

evolved from relying solely on producers’ reputation to projecting brand image, fantasy and symbolic values (Moore and Reid, 2008, p. 429).

Brands today have become means of communicating our values (Schulz and Stout, 2010) and devices for associating ourselves with some groups and disassociating ourselves from others (Han et al., 2010; White and Dahl, 2007). They have become increasingly anthropomorphized and are imbued with distinctive personalities that consumers or users would like to identify with (Aggarwal and McGill, 2010; Swaminathan et al., 2009; Yorkston et al., 2010). For example, baby carrots were earlier sold like commodities. However, now “baby-carrot farmers are launching a campaign that pitches the little, orange, crunchy snacks as daring, fun and naughty – just like junk food. The goal is to get people to think of baby carrots as a brand they can get excited about.” (Fredrix, 2000).

Just as sophisticated brands evolved from over time from commodities which had functional/material benefits as the focus, the information systems (IS) discipline had earlier focused largely on utilitarian aspects of software products and technologies. The reason may lie in the computing disciplines’ origins in disciplines that emphasize hard science, efficiency, and utility (Tractinsky, 2006). Practitioners in general took a narrow view of users’ experience by considering only user requirements for work related activities (Stelmaszewska, Fields, and Blanford, 2004).

However, employees desire a fun workplace. A majority of workers under the age of 30 list having coworkers who “make work fun” as an important factor in their job search (Belkin, 2007). It has also been suggested that people who have fun at work experience less stress (McGhee, 2000; Miller, 1996), demonstrate lower turnover and absenteeism (Marriotti, 1999; Zbar, 1999), and are more energized and motivated (Stern and Borcia, 1999). People who have enjoyment at work get along with others better (Meyer, 1999) and provide better customer service (Berg, 2001).

In line with these expectations, organizations have made numerous attempts to hedonize the work place from the omnipresent college-campus feel of the Googleplex (Schoeneman, 2006) to the free gourmet bistros and cafes onsite (“There’s always a free lunch”, 2007), Google embodies a fun workplace. In a similar vein, Southwest Airlines’ “corporate culture of fun” encourages



employees to engage in outrageous behaviors with the goal of fostering a friendly and fun work environment (Sunoo, 1995). The Kodak headquarters office in New York allows employees to go to a “humor room” to take a “fun break” (Caudron, 1992).

The IS (Information Systems) literature perhaps as a reflection of these trends recognized the need to introduce perceived enjoyment in the core TAM (Technology Acceptance Model) as one of the determinants of behavioral intention of users to use the system in addition to perceived usefulness (Venkatesh, 1999). In fact, a recent meta-analysis of TAM studies by Gerow, Ayyagari, Thatcher and Roth, (2013) showed that both perceived usefulness (utilitarian value) and perceived enjoyment (hedonic value) are equally important in behavioral intention of users to use a system.

Yet, although the Hedonic Value (HV) and the Utilitarian Value (UV) and their impact on user outcomes are well researched in Human Computer Interaction and Information Systems literature, less attention has been focused on symbolic or social value (SV) provided by software products. Users are known to identify themselves in relation to other users or group of users (Bagozzi, 2007; Kelman, 1974). One can expect software products will also provide self-esteem and status benefits to its users. By sharing their knowledge and expertise users can enhance their own self esteem as well as status within the desired community of users. Self-esteem and status can provide immense psychological and emotional benefits to the user. Status is often pursued by users as an ego reward (Emerson, 1962), or a source of gratifying social contract (Homans, 1950) and serves as a psychological asset (Fornbrun, 2001). Consumer behavior literature has shown that the strongest attachment with the product is said to occur when it provides personal meaning and when the product is considered the extension of the self (Park, MacInnis and Priester, 2006).

In this study, we therefore investigate the direct and interactional impact of all three values on users by first developing a model of the relationships between HV, UV and SV and their impacts on brand loyalty and then test them in an experimental setting.

## Theory Development

Consumers are “value-maximizers” (Kotler, 2000, p. 32; Kakar 2015a,b,c,d,e; Kakar, 2016a,b,c,d; Kakar 2018 a,b,c,d,e) and accordingly pursue exchanges that provide the greatest value. Across consumer behavior literature the value provided by the product is found to lead directly to favorable outcomes such as behavioral intentions (BI) to purchase, use or remain loyal to a product or service (e.g., Yang and Peterson, 2004; Sweeney, Soutar, and Johnson, 1999; Chang and Wildt, 1994; Cronin et al., 1997; Gale, 1994; Sirohi, McLaughlin and Wittink, 1998; Wakefield and Barnes, 1996; Holbrook, 1994; Kakar 2012a,b,c; Kakar 2014; Kakar, 2015; Kakar 2020a,b,c,d,e,f)).

The UV that the consumer derives from software products is the degree to which it helps her achieve functional and practical goals. The HV that the consumer derives from software products is the degree to which it gives her pleasure, enjoyment or fun. The SV that consumers derive from the product is the extent to which it provides both self-esteem and status benefits to the consumers. Thus, UV, SV and HV are antecedents of consumer purchase action. The greater the UV, SV and HV derived by the consumer of the software product the greater will be their impact on consumers’ purchase decision. All three benefits provided by the software product, SV, UV and HV, will therefore significantly and positively impact the loyalty of users, leading us to the following hypothesis:

**Hypothesis 1:** The user brand loyalty of a product will be positively influenced by the perceived UV, HV and SV derived from the product by the consumer

Keller and Lehman (2006) postulated that the success of branding and marketing activities depends not “only on how well they work singularly, but also on how they work in combination, such that synergistic results occur.” We agree with this argument. For example, dark chocolates which not only provide pleasure (hedonic value) but also health benefits (utilitarian value) will not only have additive effects on consumption but also synergistic effects. Not only will health conscious people start consuming dark chocolates but also the pleasure loving people will do it more enthusiastically.

We can generalize this argument to software products too. In the context of software products van der Heijden (2004) asked whether hedonic

features can be provided in Utilitarian software to make their use more enjoyable much like a parent persuading a child to swallow a bitter pill by administering it with a sweetener to make it go down more easily. The answer is yes. Past research shows that HV is known to provide direct and immediate pleasure and enjoyment to the user of even utilitarian software products thereby lowering perception of effort and promoting extensive use of even utilitarian systems (Moon and Kim, 2001).

We expect irrespective of the type, utilitarian, hedonic or social, software products will also provide symbolic value to the user. Just as buying clothes at Zara creates the impression of being “cool”, users of Apple feel “creative” using Apple products (Aaker, 2009). Thus, SV derived from software products will enhance the impact of both utility and fun on his loyalty, just exclusivity of a restaurant can enhance the impact of good food and atmospherics on consumer loyalty through the symbolic value it provides to the consumer.

Therefore, all three values – UV, SV and HV - are likely influence brand loyalty (BL) of software products. Brand attachment literature reveals that as in inter-personal relationships between people, consumers seek a total experience with brands, an experience not limited to the functional but also but also emotional and social (Fombrun, 2001; Brakus, Schmitt and Zarantonello, 2009; Iglesias, Singh and Batista-Foguet, 2011). The stronger and more varied the dimensions of experience the more will be the strength of brand attachment and greater will be its impacts on user outcomes such as the intention to use and continue to use the software product. Thus,

Hypothesis 2: The user brand loyalty of a product will be positively and multiplicatively influenced by the perceived UV, HV and SV derived from the product by the consumer.

## Method

### Study Setting and Design

Actual users of all three software products – Flow, SnowRunner and TikTok participated in the study. Each randomly chosen subject in the study answered a questionnaire based survey that captures data on demographics and relevant independent variables, dependent variable and control variables. Each user provided her responses on a software product randomly assigned to her from among the three types of

software products, utilitarian (Flow), hedonic (SnowRunner) and social (TikTok), which she has been using in the past 6 months. Although an email was sent to 2432 students of a public university, only 162 students who were users of all three projects were selected for the study. Data was first collected from the subjects on demographics and independent variables, HV, UV and SV derived by users from the use of the software products, and on dependent variable BL a week later. Previous research demonstrates that the temporal separation between measures reduces potential effects due to Common Method Variance (Sharma, Yetton and Crawford, 2009).

### Measures and Controls

Tested measures (see Appendix A) were used to capture data pertaining to HV (Babi et al., 1994), SV (Rintamaki et al., 2006), UV (Venkatesh and Davis, 2000) and BL (Yoo and Donthu, 2001). The subjects responded to each item in the scales (SV1 to SV6 for SV, HV1 to HV5 for HV, UV1 to UV5 for UV and BL1 to BL3 for BL) on a 9-point Likert scale with anchors of 9 (strongly agree) and 1 (strongly disagree) in line with the recommendation that increasing the number of choice-points increases scale sensitivity without damaging scale reliability (Cummins and Gullone, 2000). Responses were coded such that high levels of the constructs are represented by high values. The overall value for each construct was created by averaging the subject responses. Extraneous variables such as age, gender and length of use experience were controlled for in the analysis of subject responses.

### Results and Analyses

The results of the factor analysis using IBM® SPSS® Statistics Version 19 (see Appendix B) show that the factors extracted using Varimax rotation represented the scales used in the study (the UV scale represented by items U1 to U6, the HV scale represented by items H1 to H6, the SV scale represented by items S1 to S6, and the BL scale represented by items BL1 to BL3). The high loadings (>.50) within factors demonstrated convergent validity of items within scales, and the no cross loadings (>.40) between factors demonstrated discriminant validity between scales. The internal reliabilities of all the scales used in the study were greater than .70 (see Table 1). Further none of the inter-correlations between the scales were greater than .65 (Tables 2, 3 and 4).

Name of the scale	Cronbach's Alpha	Number of Items
Utilitarian Value (UV)	0.92	5
Hedonic Value (HV)	0.94	5
Social Value (SV)	0.87	6
Brand Loyalty (BL)	0.90	3

**Table 1. Internal Reliability of Scales**

	UV	HV	SV	CL
UV	1.00			
HV	.19	1.00		
SV	.17	.16*	1.00	
BL	.23*	.18*	.17*	1.00

\*  $p < .05$

**Table 2. Correlations between variables**

	Flow	SnowRunner	TikTok
UV	6.5	2.1	2.3
HV	4.2	7.8	6.6
SV	4.4	5.4	8.2

**Table 3. Value derived from software products**

Although analyzed after the study was completed, the values derived by users of the three products (Table 3) show that our manipulation of independent variables through their random assignment to the subjects was accurate. A t-test for difference in means revealed that while Flow provided maximum mean UV, SnowRunner provided maximum mean HV and TikTok provided maximum mean SV. Further, the mean values were found to be significantly greater than 0 indicating that all three products provided statistically significant amounts of all three values – UV, SV and HV.

Before analyzing the results of MHMR (Moderated Hierarchical Multiple Regression) in

Table 4, the normal probability plot was examined to ascertain normal distribution of residuals. The Variance Inflation Factor (VIF) option was included in the analyses to explore the extent of multicollinearity in the results. All the VIF values were less than 1.5 indicating a lack of multicollinearity in results (Hair, Black, Babin, Anderson & Tatham, 2006). The direct impacts of all three values UV, HV and HV on BL was found to be significant in MHMR analyses (see Table 4), thereby supporting Hypothesis 1. The impact of UV-HV-SV interaction on BL in Step 5 was also found to be significant, thereby supporting Hypothesis 2.

Step	Variables added in each step	Change in R-Square Flow	Change in R-Square SnowRunner	Change in R-Square TikTok
1	Control: Gender, Age, Experience,	0.08*	0.07*	0.09*
2	Main Effect: UV	0.13*	0.08*	0.10*
3	Main Effect: HV	0.11*	0.23***	0.13*

4	Main Effect: SV	0.11*	0.14**	0.27*
5	Interaction Effect (UV*HV*SV)	0.34***	0.27***	0.26***.

\* P < .05 \*\* P < .01 \*\*\*p < .001

**Table 4. MHMR for impacts of UV, HV and SV on BL**

## Discussion

The study findings show that the overall impact of UV, HV and SV is greater than their individual effects demonstrating their additive as well as their multiplicative impact on BL. The additive effects explained a total of 35% of variance in BL and the multiplicative effect accounted for a noteworthy 34 % of variance in BL in Flow; the additive effects explained a total of 45% of variance in BL and the multiplicative effect accounted for a 27% of variance in BL in SnowRunner; and the additive effects explained a total of 50% of variance in BL and the multiplicative effect accounted for a 26% of variance in BL in TikTok.

It is rather interesting to note from these findings that utilitarian software product appeared to benefit the most from the interaction effects of different types of value on brand loyalty. Deriving functional benefits from products and services is represented in consumer behavior studies by the themes of consumption behavior “as work” (Babin et al., 1994; Fischer and Arnold, 1990; Sherry et al., 1993) versus the more enjoyable aspects of consumption behavior “as fun” (Babin et al., 1994; Lageat et al., 2003). Perhaps the tedium of work aspects (UV) of software product use is alleviated by the fun aspects of HV and social benefits of SV. Thus, providers of all software products should focus on providing all three values to the users.

## Contribution

This study demonstrates that product managers need to focus on enhancing abstract values (HV and SV) of even utilitarian products to develop them into successful brands in future. While both research and industry and practitioners have realized the importance of HV of software products, for not only users of hedonic software but also for users of utilitarian software, they still need to focus attention on SV. With the focus on SV researchers and practitioners can usher in a hitherto largely unexplored era of branding of software products.

Norman (1998) suggested that once software meets the functional requirements of the users, considerations of convenience and reliability, and, later, of appearance and symbolic ownership will become more important. The watch industry today, Norman (1998) noted, after having met the consumer needs of accurate time keeping and durability is focusing on styling and exclusivity e.g. Rolex watches are purchased as a symbol of status, image and prestige. Aaker (2009) in the article “Beyond Functional Benefits” noted that successful brands are those which focus beyond providing functional benefits to providing emotional and social benefits. The empirical findings of this study support these observations in the context of software products and provide new avenues for future research to researchers interested in the domain.

The findings of the study suggest that users are loyal to products that are useful, exciting as well as socially engaging. Therefore ,product managers should diversify features that provide all three types of values HV, UV and SV rather than only focusing on enhancing one of them due to their multiplier effect on brand loyalty in addition to their additive impact. For example, utilitarian software products should not just focus on providing and upgrading utilitarian features but also those that enhance the more abstract SV and HV due to their synergistic effect in enhancing brand loyalty.

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**APPENDIX A. Measures Used in the Study**

<b>MEASURES AND ITEMS</b>
<b>Utilitarian Value (Venkatesh and Davis, 2000)</b>
Using this software product improves my job performance.
Using this software product in my job increases my productivity.
Using this software product enhances my effectiveness in my job.
I find this software product to be useful in my job.
I find this software product to be helpful in my job.
<b>Hedonic Value (Babin, Darden and Griffin, 1994)</b>
While using this software product, I feel happy.
Compared to other similar things I could have done, the time spent using this software product was truly enjoyable.
When using this software product, I feel excited.
I have a very nice time while using this software product.
While using this software product, I am able to forget my problems.
<b>Social Value (Rintamaki et al., 2006)</b>
Patronizing this software product fits the impression that I want to give to others
I am eager to tell my friends/acquaintances about this software product
I feel that I belong to the user cohort of this software product
I found this software product to be consistent with my style
I felt like a smart user by selecting this software product
This software product gave me something that is personally important or pleasing for me
<b>Brand Loyalty (Yoo and Donthu, 2001)</b>
I have the intention to continue using this software product
Based on my experience, I am very likely continue my relationship with this software product in future
I am not likely to be persuaded to use other products in this category of software products

**APPENDIX B. Results of Factor Analyses**

Items	Factor			
	1	2	3	4
SV1	<b>0.930</b>	-0.026	-0.048	0.023
SV2	<b>0.914</b>	0.001	0.013	-0.006
SV3	<b>0.913</b>	0.104	-0.059	-0.004
SV4	<b>0.806</b>	0.089	0.022	-0.141
SV5	<b>0.844</b>	0.044	0.010	0.082
SV6	<b>0.834</b>	0.010	0.079	-0.001
UV1	0.030	<b>0.908</b>	0.135	0.107
UV2	0.078	<b>0.841</b>	0.133	0.231
UV3	0.004	<b>0.875</b>	0.124	0.081
HV1	-0.064	0.146	<b>0.645</b>	0.085
UV4	-0.001	<b>0.805</b>	0.113	0.165
HV2	0.069	0.016	<b>0.886</b>	0.057
UV5	-0.026	<b>0.918</b>	0.170	0.069
HV3	0.012	0.002	<b>0.859</b>	0.062
HV4	0.019	0.378	<b>0.733</b>	0.029
HV5	0.002	0.135	<b>0.858</b>	0.002
BL1	-0.010	0.016	0.373	<b>0.796</b>
BL2	0.018	0.025	0.095	<b>0.855</b>
BL3	0.008	0.001	0.133	<b>0.840</b>



## **THE DYNAMICS OF REPATRIATE CONSUMER ACCULTURATION**

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**Keywords:** Consumer acculturation, migrant consumers, social representations, societal conditions

**Description:** This paper identifies different societal conditions for migrants' consumer acculturation.

### **EXTENDED ABSTRACT**

#### **Research Question**

In contrast to the variety of consumer identity positions and acculturation outcomes in extant research (e.g., Peñaloza 1994, Oswald 1999), scholars have recently started to focus on macro-conditions of consumer acculturation (Veresiu and Giesler 2018), but have in total painted a rather one-sided theoretical picture of the societal conditions in which consumer acculturation takes place. First, these conditions appear similarly oppressive, as more positively oriented or welcoming settings are missing. Second, migrant consumers in prior research lack agency to counter this majority domination and to reach recognition. Third, the societal conditions in extant research seem temporally stable. Taken together, prior consumer acculturation research paints a rather dire picture of immigrant consumer acculturation conditions, i.e., a picture where broader society dominates most migrant groups, where individuals almost inevitably fail to fulfil their dreams of market integration. Therefore, we seek to answer the following research questions: which broad conditions shape migrants' consumer acculturation? Are there conditions in which migrants have better chances at

successful consumer acculturation? Which societal spheres constitute these conditions and how does each of them shape migrants' consumer acculturation prospects?

### **Method and Data**

In order to look for different societal conditions for consumer acculturation, we conduct a historical ethnographic analysis of ethnic German repatriate consumers from the former Soviet Union over 70 years. The ancestors of these migrants emigrated from Germany to Russia from the 18<sup>th</sup> century on, and their descendants have repatriated to Germany after World War II until today. This context suits our theoretical goals well, since on the one hand, these repatriates are similar enough to indigenes to resemble them in their appearance, names, legal status, and religion, but different enough in their consumer culture and language proficiency to be identified as a distinct migrant group which may encourage stigmatization in the form of labeling or discrimination.

In line with process theorization (Giesler and Thompson 2016), we collected a macro-, meso- and micro-level data set which is rich and comprehensive enough to support our theorization of changing societal conditions for consumer acculturation. Our data set comprises 57 interviews (with repatriates, indigenes, and institutional representatives), archival data (e.g., parliamentary proceedings, newspaper articles), field data (e.g., field notes from repatriate-related events), and netnographic data. We conduct a social representations analysis with our data (Moscovici 1984).

### **Summary of Findings**

Our study reveals how societal representations of a migrant group change over time, producing four theoretically distinct consumer acculturation conditions for migrant consumers. Over our 70-year analytical period, our focal migrant group was welcomed by the receiving society (a condition we call *interest*), discriminated against and stigmatized (*inharmony*), fell into oblivion (*indifference*), and was recognized as making a societal

contribution (*influence*). Three societal spheres are involved in constituting these conditions: the political sphere, the market sphere, and the public opinion sphere (comprised of mass media and indigenous consumers). We argue that most migrant groups face either of these four conditions at a time of study and may experience a switch from one condition to another in the wake of, for instance, political shifts, changing hierarchies among migrant groups, the public visibility of migrant celebrities, or situated media interests.

### **Statement of Key Contributions**

Our study addresses important oversights in extant consumer acculturation literature. First, prior studies show a high degree of convergence in terms of their contextual background descriptions, as migrants face rather similar conditions of oppression and societal rejection. Second, because of this focus on dominated, often low status migrants, researchers imply migrants' lack of agency to achieve recognition and status improvement in society. Third, prior studies do not question consumer acculturation conditions in terms of their temporal situatedness. However, disruptive events such as Brexit, 9/11, or changes of government remind us that societal conditions can shift, exposing certain groups to unprecedented levels of threat, while easing societal pressure on others. Our study challenges this rather pessimistic and static view and contributes insights on changes in societal consumer acculturation conditions. We find four distinct conditions which are shaped by three social spheres (politics, market, and public opinion) and manifest themselves across consumption contexts: interest, inharmony, indifference, and influence. We highlight the role of disruptive macro-events in shifts between conditions. In sum, we advance consumer acculturation research by focusing on macro-conditions over time.

## **The Effects of Multiple Identity Attributes of Minority Endorsers in Advertising**

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**Keywords:** minority endorsers, multiple identities, advertising effectiveness, ethnicity, sexual orientation, age

**Description:** This study investigates how multiple identity characteristics (i.e. ethnicity, sexual orientation, and age) of endorsers in advertising interact in influencing advertising effectiveness.

### **EXTENDED ABSTRACT**

#### **Research Question**

Demographic changes in many societies have been leading to increased societal diversity in terms of ethnicity, religion, and sexual orientation, among other things. While negative news coverages of certain minority groups dominate and including minority endorsers in advertising bears the risk of backlashes, marketing scholars and marketers still started to identify the opportunities addressing minority consumers offers.

Extensive research investigating the effectiveness of minority endorsers in advertising shows inconclusive results. Some studies demonstrate favorable advertising responses to minority endorsers, other studies show negative reactions of non-targeted consumers (e.g. Aaker et al. 2000).

Despite the great body of literature on the depiction of minority groups in advertising, previous research almost exclusively focused on one single identity aspect.



However, people do not identify solely by one characteristic but belong to several social groups and in different situations, different identities can become salient (LeBoeuf et al. 2010).

By addressing the following research questions, this study investigates how those different identity attributes interact in influencing advertising effectiveness:

*How does the depiction of endorsers with multiple minority identity characteristics influence advertising effectiveness? Does the depiction of multiple identity traits lead to more positive evaluations? Or does it behave additive leading to less favorable evaluations?*

### **Method and Data**

A 2 (endorsers' ethnicity: White (i.e., majority) vs. non-White (i.e., minority)) by 2 (endorsers' sexual orientation: heterosexual (i.e., majority) vs. homosexual (i.e., minority)) by 2 (endorsers' age: young (i.e., majority) vs. old (i.e., minority)) between-subjects design was applied. Eight versions of an advertisement for a fictitious dating app "LoveMate" were created and all three factors were manipulated.

A total of 262 participants were recruited via Amazon's MTurk. Since the majority groups' responses were of interested for this study, screening questions were used to ensure that participants were White, heterosexual and young. Participants were randomly assigned to one of the eight experimental conditions.

Participants were first exposed to the ad, followed by a questionnaire with dependent variables (attitudes toward the ad, attitudes toward the brand, purchase intention), control variables (attractiveness and congruency), manipulation assessment measurements, and demographic variables. A pretest and manipulation check confirmed successful manipulations.

### **Summary of Findings**

Results reveal a category dominance of sexual orientation. Although the same endorser was used for the young heterosexual and homosexual condition, responses were significantly less positive for the later. Furthermore, the White young homosexual endorser received the least positive evaluations, while the White young heterosexual endorser was evaluated most favorable compared to all other conditions. This is in line with previous research demonstrating that disgust is the underlying mechanism of negative responses to homosexual endorsers (El Hazzouri et al. 2019).

While attitudinal responses to the elderly endorser did not differ, purchase intentions were significantly lower. This might be due to a lack in processing. Because elderly are still underrepresented in advertising, young consumers might not be used to those ads and therefore do not feel targeted.

No significant differences in evaluations for the ethnic minority endorsers were found. Especially, the young heterosexual Black endorser was evaluated equally favorable compared to the young heterosexual White endorser. This might be due to a more frequent and less stereotypical representation in advertising.

To summarize, results indicate that while ethnic minorities have gained certain levels of social acceptance, majority consumers are still not used to underrepresented minority endorsers such as elderly and sexual minorities.

### **Key Contributions**

The current study extends the literature on minorities in advertising. Research has almost exclusively investigated the responses of majority consumers to minorities who are out-groups on one identity dimension. This is surprising considering that individuals have multiple identities that can become salient at different times. Results of the study provide evidence of a category dominance. While some minorities have

become widely represented and accepted by majority consumers, certain minorities remain underrepresented and stigmatized leading to less favorable evaluations.

By looking at different identity traits individually and simultaneously, we try to find a comprehensive approach to include minorities in advertising while overcoming negative reactions.

This research also has societal impacts. Advertisers still hesitate to include certain minorities in their communication strategy or depict them in a stereotypical way. However, this can have negative consequences for individuals and intergroup behavior since identities are much more diverse. Including diverse endorsers in advertising that resemble societal diversity and represents reality can help to reduce prejudice and create more acceptance.

Practical implications for advertisers of how to increase advertising effectiveness are provided. By portraying minority endorsers with multiple identity characteristics, marketers can target a wider range of individuals and social groups while reducing alienation effects.

*References are available upon request.*

# **Sustainability and Social Responsibility**

**ARE COLLABORATIVE CONSUMERS ETHICAL CONSUMERS? ABSTRACT  
MORAL STAGES IN SHARING MARKETS**

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**Keywords:** consumption dilemmas, Lawrence Kohlberg, sharing, collaborative consumption

**Description:** In this project, we apply the Defining Issues Test (DIT) and show that this method, that is most widely used in philosophy and educational psychology, is worth applying to consumer research.

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## **EXTENDED ABSTRACT**

### **Research Question**

Collaborative consumers offer and use market goods and services in cooperation with other consumers either peer-to-peer or with the support of companies. The various possible relationship types in which collaborative consumers can interact with each other go beyond the classic structure of the consumer role that is mostly restricted to buying products or services. The motives to engage in collaborative consumption are as diverse as the relationship types and often result in dilemmas that consumers within the different areas of collaborative consumption need to solve.

Political campaigns and business models are promoting collaborative consumption by highlighting subsets of normative motives. However, such efforts only have real value if the consumers can comprehend the moral motives that are promoted and are able to balance the different normative aspects according to their own subjective norms. Hence, we ask the following research questions:

1. Do collaborative consumers satisfy the cognitive and emotional preconditions to understand complex normative moral statements inherent in collaborative consumption?
2. Are collaborative consumers prone to moral cues that aim at specific normative principles?
3. Do consumers' roles within collaborative consumption (i.e. whether the consumers take part in the collaborative consumption as a supplier or consumer) change their moral reasoning?

### **Method and Data**

In an experiment with  $N = 471$ , we assessed consumers' normative moral judgments by confronting them with a series of moral dilemmas that depict consumption activities within collaborative consumption and calculated P-Scores, N2-Scores, and U-Scores to analyze their cognitive capabilities to make normative judgments about different consumption activities.

## **Summary of Findings**

Taken together, the project aims to contribute to the literature on consumer ethics and consumer research in three ways. First, we apply and adapt the Defining-Issues-Test from Lawrence Kohlberg and James Rest (DIT) to contemporary issues in collaborative consumption and show that this method, that is mostly used in philosophy and educational psychology, is worth to be applied in consumer research as well. The DIT does not only analyze how well individuals are able to cognitively assess moral issues, but it also changes the way we can look at and analyze contemporary consumption activities that very often constitute complex moral dilemmas. Second, we show that consumers apply different kind of strategies to morally evaluate a diverse set of consumptions dilemmas and highlight the unique characteristics of collaborative consumption, a set of consumption patterns that individuals can take part in both as suppliers and consumers. Third, we show that different types of consumption activities within the collaborative consumption sphere, that can be distinguished with regards to their business type, evoke different levels of normative moral judgments.

## **Statement of Key Contributions**

In this project, we apply the Defining Issues Test (DIT) and show that this method, that is most widely used in philosophy and educational psychology, is worth applying to consumer research. The DIT is an empirical method that is based on Lawrence Kohlberg's stages of moral development and allows empirical statements about moral judgement of individuals by empirically analyzing individual responses to moral dilemmas. This project applies this method to the realm of collaborative consumption and analyzes how consumers (and suppliers) of different types of sharing (e.g., Carsharing, Airbnb, Couchsurfing, Ebay, etc.) morally evaluate their role within these business models and their responses to moral dilemmas that naturally occur when making consumption choices. We find that the DIT is a novel and promising approach in analyzing consumers' moral judgments in the consumption context and that

collaborative consumption is a particularly appropriate field of research that should be further analyzed with the DIT.

References are available upon request.



## **Climate Change, Social Traps, and Marketing Strategy: An Exploration of Leading Firms in the Fashion Industry**

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### **Keywords:**

Climate change social trap, Marketing strategy, Sustainability, Social dilemmas, Social traps

### **Description:**

On the foundations of research on social traps, this research evaluates 130 leading companies in the fashion industry with reference to their marketing strategy efforts to emerge out of the *climate change social trap*.

## EXTENDED ABSTRACT

### Research Question

Due to the substantial risks associated with global warming, changing the behavior of organizations and other stakeholders is critical to the long-term wellbeing of our society. The current research argues that solutions to the challenge of climate change will result from understanding and resolving the *climate change social trap*. Therefore, the central purpose of this research is to explore marketing-related solutions for organizations entangled in the climate change social trap. In particular, how do firms emerge out of the climate change social trap? While firms in all industries can potentially be embroiled in the climate change social trap, we examine the fashion industry as its damaging impact on the environment through greenhouse gas (GHG) emissions has been the focus attention of many governmental, non-governmental, and non-profit organizations for the last several decades (British Fashion Council 2019). Specifically, modifying the framework proposed by Shultz and Holbrook (1999), we analyze 130 leading firms in the fashion industry to investigate how marketing strategies can facilitate fashion companies' emergence out of the climate change social trap.

**Data Collection**

The BWAA's Ethical Fashion Report in 2019 evaluated 130 fashion companies' environmental perspectives by asking eleven questions focused on: the overall impacts of the companies on climate; the utilization of water in the company's supply chain; the utilization of sustainable fibers; and the provision of take-back and repair plans. We use this report as a starting point for our research. Using Google, we collected data from the official webpages of 130 leading fashion companies. On the basis of the shared text-information on the official websites of the companies, including their annual reports, we developed a unique dataset of 22,671 words. We classified the 130 organizations into five groups based on the grades they received (A, B, C, D, and F) and organized the data using our modified framework into the following categories: (i) the company's mission, values, and/or culture, (ii) social responsibility, (iii) organizational partnerships, (iv) communication, and (v) marketing strategy with the objective of assessing the companies' efforts toward addressing environmental and social issues. After screening, filtering, and implementing the sentence classification, based on communalities in each category, we summarized the data into two tables.

**Summary of Findings**

Our research provides evidence on how fashion firms can emerge out of the *climate change* social trap. Specifically, first, with reference to *social responsibility*, the results indicate that firms need to go from investments, to exploring discrete opportunities, to exploring and acting on coordinated and comprehensive opportunities, to making discernible commitments, to finally committing to and working on continual, innovative approaches to sustainability. Second, specific to *partnering with organizations*, fashion companies go from being open to partnerships, to partnering with suppliers and business partners with similar values, to looking to develop long-term partnerships with nonprofit organizations, to partnering with multiple groups to receive help for measuring, reducing, and reporting environmental footprints, to finally direct collaborative partnerships with nonprofit, nongovernmental, and other environmental organizations for sustainability efforts. Third, as to *communication*, both through actions and/or communication, fashion companies can educate different stakeholders by going from communication about commitment and giving back to communities, to investing in sustainability education, to raising awareness through policy, education, and social channels, to finally disseminating environmental information to stakeholders, educating customers, enhancing communal knowledge of sustainability, supporting environmental movements, encouraging people to live sustainably, and investing in social programs toward societal welfare and humanitarian aids.

**Statement of Key Contributions**

Our research makes four major contribution. First, on the foundations of research on social traps, we conceptualize the climate change social trap as *the behavior of entities (firms, individuals, social groups) favoring short-term positive consequences over long-term negative consequences of climate change for society*. Second, we review and synthesize extant research on social traps from different disciplines, and discuss specific taxonomies of solutions for different social traps or social dilemmas. Here, we elaborate on the partial, social trap solutions framework of Shultz and Holbrook (1999) that addresses the specific implications for marketing engagement. Third, using the partial, social trap solutions framework, we evaluate the strategies of 130 leading fashion companies as per the *BWAA's (Baptist World Aid Australia) Ethical Fashion Report* for 2019. Fourth, our research has significant implications for not only the fashion companies in the climate change social trap, but also for firms that are in social traps in general. Last, but not the least, our research has implications for how firms can facilitate the migration of consumers out of social traps.

**CONSUMER REACTIONS TO CLIMATE POLICY INSTRUMENTS:  
THE IMPACT OF DIFFERENT MOTIVES FOR CLIMATE PROTECTION OF A  
CITY TOLL**

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**Keywords:** climate-friendly consumption, climate policy tools, consumer emotions, motives for climate protection

**Description:** This research investigates consumer reactions to policy tools that aim to reduce individual GHG emission.

**EXTENDED ABSTRACT**

**Research Question**

This research aims to investigate how the combination of different approaches to reduce consumers' greenhouse gas (GHG) emission from driving, i.e. a city toll that aims to reduce individual GHG emission and a nudge displaying different motives for climate protection, increases the effectiveness of policy tools. Moreover, we investigate the underlying mechanism in more detail and consider positive and negative consumer reactions to different motives (egoistic and altruistic) for climate protection that can either mitigate or foster subsequently climate-friendly behavior. In the present research, we are particularly interested in how addressing different motives for climate protection may influence induced feelings by different city toll levels.

## **Method and Data**

For the development of the manipulation, a pre-study with 62 French respondents (52.6% male,  $M_{age} = 31.1$ ,  $SD = 14.76$ ) was conducted to identify the most relevant motives (including egoistic, altruistic and biospheric value orientations) to promote climate protection and to specify realistic price ranges of a potential city toll. Based on the pre-study results, we used a 2 (high city toll vs. low city toll)  $\times$  3 (altruistic motive vs. egoistic motive vs. no motive) between subjects' design in the main study. We collected data of 221 French subjects (41.2% male,  $M_{age} = 26.61$ ,  $SD = 10.74$ ). Participants were asked to imagine a scenario in which the introduction of a city toll is being planned in their city and that the revenues of this toll are used for climate protection. Signs with information about the city toll were presented. We manipulated the displayed motives and the amount of the city toll based on the results of the pre-study. We conducted a MANOVA and post-hoc tests (LSD) to compare how differences in the displayed motives and city toll levels influence participants' feelings.

## **Summary of Findings**

The multivariate results were significant for the level of the city toll, indicating a difference in respondents' feelings regarding a low and high city toll. Moreover, the results provide no significant effect of the motives and no significant interactions effects. The univariate F-tests showed a significant difference between the influence of a low and a high city toll on negative feelings (distressed, upset, scared, hostile, irritable, jittery, afraid) and positive feelings (active, interested, exited, strong) and marginal significant effects for positive feelings (inspired). Thus, a low city toll level has a significantly positive effect on positive feelings, whereas a high city toll generates negative feelings. Moreover, results indicate that displaying egoistic and altruistic motives marginally significantly induces more feelings of distress compared to the absence of a motive. In addition, we found a significant interaction between the level of city toll and motives on feelings of distress. For a low level city toll, showing altruistic motives induces the

highest level of distress compared to an egoistic motive or the absence of a motive. For a high level city toll, displaying an egoistic motive induce the highest level of distress.

### **Key Contributions**

As a first investigation, our research provides valuable insights about consumer reactions to the implementation of a tax (i.e. a city toll in the present search) that is used for climate protection (i.e. decrease GHG emissions from private road transport) and the role of different motives for climate protection. Our results show that different levels of a city toll induce several positive and negative feelings. Future studies will show whether and how these feelings promote or foster the effectiveness of such a policy measure. However, our first results show that negative feelings in terms of distress can be regulated by displaying different motives for climate protection. Our research therefore contributes to the literature on consumers' willingness to support policy measures and the effectiveness of such measures by getting a deeper understanding about consumers' feelings caused by such measures. Our results indicate that an implementation of a city toll that aims at reducing consumption and displaying different motives for climate protection evoke strong consumer reactions in terms of positive and negative feelings, that can either promote or reduce the effectiveness of a policy measure.



## **CONSUMER SOLIDARITY: A SOCIAL-SYSTEM PERSPECTIVE ON THE GLUE THAT HOLDS SOCIETY TOGETHER**

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**Keywords:** consumer solidarity, communities, collective bonds, social glue, relationship marketing

**Description:** This research explores consumer solidarity as a collective bond and key driver of consumers' support towards companies, above and beyond dyadic bonds.

### **EXTENDED ABSTRACT**

#### **Research Question**

Solidarity is central to several research disciplines, as well as to social and political movements (e.g., “Black Lives Matter”). Indeed, it is the glue that holds society together and often results in group support (Durkheim 1893/1964; Coates 2007). Despite its importance for society, solidarity has not been explored as a key construct in consumer research. Extant studies examine various types of “social glue” between consumers and firms (Bagozzi 1995, p. 276); however, they almost exclusively employ a dyadic rather than a collective perspective. Adopting a social-system perspective (e.g., Giesler 2006), we widen the scope of extant relationship marketing

research. In this paper, we explore consumer solidarity as a collective bond and key driver of consumers' support towards companies. Therefore, we identify different facets of consumer solidarity, its antecedents, consequences as well as several contingency factors. Further, we explore how companies can foster consumer solidarity within a consumer–company collectivity.

### **Method and Data**

To explore consumer solidarity alongside dyadic mediators, we conducted a qualitative interview study in the context of the coronavirus pandemic. The pandemic has unearthed both the worst and the best of humankind. While selfishness is reflected in consumers hoarding pasta and toilet paper, consumers also deliberately support firms in various ways such as buying gift cards, refraining from refunds, or donating money. Through social media posts, website communications, or email newsletters, companies in turn seek to raise consumers' awareness for their current situations, often appealing to togetherness and solidarity. We conducted standardized qualitative interviews with 105 participants who had supported a company during the coronavirus pandemic. We recruited participants from the U.S., UK, and Germany through a paid panel. Respondents had a mean age of 32.1 years and 49.5% were women. Participants were asked to describe their behavior, thoughts, and feelings about supporting companies during the coronavirus pandemic. In order to review the open-ended questions, we employed content analysis.

### **Summary of Findings**

We find that consumers base their support towards companies not only on dyadic motives, but also on collective motives. Affective and calculative solidarity emerge as key drivers of

consumers' supporting behaviors. Affective solidarity can be based on a sense of unity, shared identity, similarity, shared goals and values, and the recognition of the other's worth to the collectivity. In contrast, calculative solidarity manifests through the recognition of co-dependence between consumers and companies for a flourishing collectivity. We show that threats to firm performance elicit both dyadic (i.e., commitment, trust, and gratitude) and collective motives (i.e., affective and calculative solidarity) to support specific companies either in monetary (i.e., charitable giving, increasing cash-flow, and purchase) or non-monetary forms (i.e., [electronic] word-of-mouth and volunteering). As contingency factors, we incorporate two firm-related (i.e., support receiver characteristics and communication) and two consumer-related moderators (i.e., support giver characteristics and perceived threats) in our synthesized framework.

### **Statement of Key Contributions**

Our contributions are threefold. First, we expand the framework of relationship marketing (Palmatier et al. 2006) by collective mediators, namely affective and calculative solidarity. Our findings suggest that consumers consider certain companies to be part of a joint collectivity. Consequently, dyadic relationships do not suffice to explain consumer behavior as it is partly driven by collective feelings and considerations. Second, our study underlines why consumers sometimes support a specific firm without a prior relationship. While dyadic mediators necessarily depend on existing relationships, consumer solidarity can evolve independently, similar to social movements where people without any ties to a minority group show their support. Third, we add another, broader form of community (i.e., the collectivity of consumers and firms) to marketing research, beyond specific brand or industry communities. Strategically

managing the community becomes more challenging the wider communities get. Against this backdrop, we identify contingency factors providing insights into how companies can foster solidarity within a consumer–company collectivity.

References are available upon request.

**HOW SOCIALLY- AND ENVIRONMENTALLY-SUSTAINABLE PRODUCTS IMPACT  
ONLINE CUSTOMER BEHAVIOR: EVIDENCE FROM A LARGE-SCALE FIELD  
EXPERIMENT**

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**Keywords:** *sustainability, corporate social responsibility, customer behavior, customer brand  
identification*

**Description:** Sustainability communication negatively impacts purchase interaction, however,  
the existence of a previous brand relationship offsets this negative effect as a trust relationship is  
already built.

## EXTENDED ABSTRACT

### Research Question

E-commerce will continue to dramatically grow over the next years (Statista 2020). At the same time, Corporate Social Responsibility (CSR) is considered one of the most influential trends in today's consumer markets (Grinstein and Riefler 2015). Acknowledging the practical relevance of CSR, researchers call for an extension of the literature from CSR as a simple marketing instrument to CSR as an instrument for creating stakeholder value (Matten and Moon 2020; Pelozo and Shang 2011). Research on this CSR category<sup>1</sup>, product-related CSR, meaning integrating it into a company's core offering via sustainable products, is still limited (Bangsa and Schlegelmilch 2020). How sustainable products impact actual customer behavior and what sub-domains of sustainability, environmental- or social-sustainability, drive purchase intention and actual purchase is yet unexplored. We therefore aim to address the following question: *How do the different sustainability domains, environmental and social, impact purchase interaction?*

### Method and Data

We test our hypotheses based on a unique dataset obtained from a large-scale online field experiment. The field experiment is conducted in August and September, 2020 with a German online brand for sustainable products and allows for observing actual customer reactions of more than 240,000 users. We analyze the effect of the different sustainability domains (social-sustainability yes/no and environmental-sustainability yes/no) on purchase intention (add to cart yes/no) and actual purchase (purchase yes/no). We use binary logistic regression models to analyze our data. Due to random allocation of users to the different treatment groups, the

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<sup>1</sup> CSR actions can be divided in three categories: philanthropy (e.g., donating funds), business-practices (e.g., usage of renewable electricity) and product-related CSR (e.g., sustainable goods) (Pelozo and Shang 2011).

variables are independent of the error term and no additional control variables on the user level are required (Sahni 2016).

### **Summary of Findings**

The different sustainability domains have a significantly negative impact on purchase intention and actual purchase. We cannot derive that the user is responding sensitively to the different sustainability domains. However, the existence of a previous relationship between the user and brand offsets the negative impact of sustainability communication. If a previous relationship between the user and brand exists, environmental sustainability communication even has a positive impact on purchase intention. With regards to actual purchase, relationship strength offsets the negative effects of sustainability (environmental, social and combined). Adding to cue consistency theory, we conjecture that social and environmental sustainability are not perceived as dissimilar signals given their overall similar effect strength. Besides, based on our findings, we can assume that sustainability is perceived with high uncertainty, so that some kind of trust relationship (such as previous order history) is needed to decrease the uncertainty.

Summarizing, we can derive that sustainability communication negatively impacts purchase interaction unless a strong relationship between the user and the brand already exists.

### **Key Contribution**

Our work sheds light on an understudied facet of CSR literature. Past research has mainly focused on philanthropic CSR while research on product-related CSR is still limited (Bangsa and Schlegelmilch 2020; Pelozo and Shang 2011). However, researchers as well as recent market trends call for an investigation on product-related CSR, namely how sustainable products impact customer behavior (Matten and Moon 2020). We add to the CSR research stream by investigating whether customers are sensitive to the sustainability domain, social- and

environmental-sustainability, by analyzing the effect of its different domains on purchase intention and actual purchase.

We extend the Customer Brand Identification (CBI) framework, based on social identity theory, by identifying drivers, either social- and/or environmental-sustainability, for brand identification. We encompass the understanding of brand identification for sustainable products by considering not only purchase intention but also actual purchase behavior.

Besides, we add new insights to cue consistency theory by extending it to a context of high product uncertainty, where both, sustainable products (being perceived as credence goods) and online markets indicate a high need for cues. We give insights on what sustainability domain companies should focus on budget- and communication-wise to satisfy upcoming customer demands (Grinstein and Riefler 2015).

*References are available upon request.*



## **I WILL FOLLOW YOU INTO THE DARK: HOW UNETHICAL BRANDS MAKE CONSUMERS LIE**

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**Keywords:** corporate lies, moral contagion, consumer emotions, self-brand match

**Description:** This paper analyzes how consumers react to corporate lies and how those lies might even contaminate consumers to lie themselves.

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## **EXTENDED ABSTRACT**

### **Research Question**

This paper analyzes how consumers react to corporate lies. Moreover, this paper specifically investigates if and how corporate lies lead to an increase in individuals' lying behavior, thereby contaminating the individuals' moral beliefs and spreading immoral behavior further. Building on recent literature on contagious immorality (Gino, Gu, & Zhong, 2009b) and corporate immorality (Newman & Brucks, 2018), we investigate how consumers react emotionally and behaviorally to corporate lies and show that brand knowledge (Study 1) and consumers' psychological match with the transgressor (Study 2a and Study 2b) are major drivers of individuals' lying behavior.

### **Method and Data**

Across a series of experimental studies and two pre-tests, we apply experimental vignettes that manipulate the behavior of brands and analyze the data using sampled t-tests, regression-based moderation, moderated mediation analysis, and analysis of variance (ANOVA). With a pre-tested and self-developed priming-procedure, we manipulate consumers' self-brand-match to induce psychological bonds between brands and their customers. A total of 632 participants took part in the experiments.

### **Summary of Findings**

Across three experimental studies, the paper shows that brand knowledge (i.e., how well individual know the brand and are aware of the brands' activities) is a significant lever that determines whether consumers are contaminated by the brands' immorality or not. Further, the paper provides evidence for a double-edged sword of brand-customer-relationships that build on high psychological identification between brands and their customers and indicates that costumers that feel highly connected to a brand, react more harshly to immoral behaviors of

brands and even engage in immoral behaviors themselves. This novel field of research is a first step in understanding the societal and economic consequences of corporate misbehavior that go far beyond a loss of reputation or short-term losses of revenues but that have major implications for the society at large and increase the normative role that companies play within a globalized marketplace. Further, the paper shows evidence for the unique role of the negative emotions of disappointment and contempt in the process of contagion. While contempt decreases consumers' own lying behavior, disappointed consumers may take revenge and engage in recuperative actions towards the brand that lied to them. However, both processes only occur for consumers that do not have a high psychological bond with the brand.

### **Statement of Key Contributions**

Recent psychological research addressed the process of moral contagion (i.e., how individual immorality contaminates the immorality of others) and addressed multiple avenues of research that show under which circumstances the immorality of some agents leads to more immorality among others. This paper applies the concept of moral contagion to the marketing world and shows that the contamination effect is also observable between immoral brands and their potential customers. The paper introduces consumers' brand knowledge and their psychological self-brand-match with the unethical brand as highly relevant moderators that help to understand the process of contagious immorality and applying it to the realm of consumer research.

References are available upon request.

## **LUXURY GOODS DISPOSITION: A SUSTAINABILITY PERSPECTIVE**

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**Keywords:** luxury products, disposal, sustainability, decision making

**Description:** This paper explores consumers' decision making processes related to the disposal of luxury branded goods.

### **EXTENDED ABSTRACT**

**Research Question** - Consumer research has begun to understand not only how consumers acquire goods but also how they dispose of these goods; however, the research in the latter is still lacking which is significant given the importance of sustainability. Furthermore, a growing secondary market for luxury goods has made this decision more complicated for luxury products in recent years. While research has aimed at understanding the demand for secondhand luxury goods, none that we are aware of has looked at the supply side of this market. Therefore, the purpose of this paper is three-fold: 1) to examine the motivations behind disposal decisions for luxury (vs. non-luxury) items, 2) to understand the impact these motivations have on the sustainability of the disposal decision, and 3) to explore how a luxury good impacts decisions made for non-luxury items in a bundle of items.

**Method and Data** - The four studies collected for this research use an experimental design. We use both online MTurk participants as well as students at an American University and implement

imagined scenarios for both real and fictitious brands as well as a behavioral disposal task with real products in a laboratory setting.

**Summary of Findings** - We hypothesize and find in four studies that participants making a disposal decision about a luxury product tend to make more sustainable disposal decisions. Furthermore, we demonstrate that this is driven by a focus on the money associated with the item. We also find that when making disposal decisions for a group of items, participants who perceive that they are disposing of a luxury item are much less likely to hoard the non-luxury items.

**Key Contributions** - Our research contributes to research on sustainability, disposal decisions, as well as luxury consumption. While much research has studied luxury consumption, this research has focused on purchase and usage. Our research extends this stream to the decisions being made once the product is no longer being used by the consumer, how/if it should be disposed of. Additionally, we frame this decision in sustainability by viewing the decisions to sell, donate or give the item away as sustainable and the decisions to trash or hoard (keep) the item as unsustainable. These decisions hold important implications to the booming second-hand luxury market as our research aims to understand the motivations behind those supplying products to this market. Finally, we find that making disposal decisions with regards to a luxury product impacts the disposal decisions made about non-luxury items.

**SUSTAINABILITY IN MARKETING: REVIEW OF LITERATURE, A NEW  
MARKETING-CENTERED DEFINITION, AND OPPORTUNITIES FOR FUTURE  
RESEARCH**

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**Keywords:** Sustainability, sustainability-motivated marketing, systematic review

**Description:** A systematic review of extant research on sustainability in marketing literature published during 2009-2020, the development of a definition for ‘sustainability-motivated marketing’, and identification of opportunities for future research.

**EXTENDED ABSTRACT**

**Research Questions:**

What are the key implications from research on sustainability published in marketing literature in the last decade? Does the discipline have a marketing-centered definition of sustainability? Which aspects of sustainability have been examined and which warrant further research?

**Method and Data:**

The search for literature on sustainability was conducted using a list of representative keywords of ‘sustainability,’ ‘environment,’ and ‘green marketing’ (c.f. Varadarajan 2017) through electronic databases. We focused on the following leading marketing journals from 2009

to 2020: Journal of Marketing, Journal of Marketing Research, Journal of the Academy of Marketing Science, International Journal of Research in Marketing, Journal of Retailing, Marketing Science, Journal of Consumer Research, and Journal of Public Policy and Marketing. The search records were assessed based on three inclusion criteria. First, the paper needs to be either conceptual or empirical. Consequently, calls for papers and commentaries were excluded. Second, empirical papers must examine sustainability or related constructs as independent, moderator, mediator, or dependent variables. Third, the articles need to have examined the topic of sustainability from marketing's perspective rather than a more general focus on the environment, society, or consumer well-being. After eliminating records that did not qualify the inclusion criteria, the review is based on 85 papers.

### **Summary of Findings:**

Two key findings emerged from our study. First, we organize the key findings from the reviewed studies using an inductively developed organizing framework. The integrated organizing framework reveals that although marketing discipline has allocated a lot more attention to examine sustainability during the last decade, such examination has a dominant focus on a few aspects such as consumer behavior and tactical marketing mix elements, but significantly less on the firm or industry level strategic aspects.

Second, most of the research covered in the review examines sustainability in marketing and its applications without making any attempt to define it or adopting a prior definition. Overall, the review suggests that the existing literature in marketing lacks a commonly accepted definition of sustainability. We address the issue of the unstructured progress of research on sustainability in the marketing literature by developing a new marketing focused definition of

‘sustainability-motivated marketing’. The new definition, which incorporates the core elements of marketing and the key stakeholders of businesses, would provide academics a marketing-centric foundation to generate additional knowledge on sustainability.

**Statement of Key Contribution:**

Over the past decade, research has made considerable progress towards understanding sustainability from marketing’s perspective. However, in the absence of a unifying framework and consensus on a definition of sustainability, it has progressed in an unstructured manner. This study addresses this issue by making two critical contributions to the literature on sustainability in marketing. First, we systematically synthesize findings from studies on sustainability published in leading marketing journals during 2009-2020 using an inductive approach for the organizing framework that embraces its multilevel and multidimensional nature. In doing so, we extend the significant work of Chabowski et al. (2011), which delineated the structure of sustainability research in marketing (1958-2008). Second, we develop a new marketing-centered definition of sustainability in a boundary expansion effort that incorporates the insights from the systematic review of literature, the critical elements of sustainability emphasized in its extant definitions and conceptualizations, and the changes in the substantive landscape of sustainability. Further, we build on our review and delineate important areas for future research, across the five opportunity stages for value creation available to a firm, i.e., upstream, production, downstream, consumption, and post-consumption (Varadarajan 2017), towards developing a marketing-centered wholesome understanding of sustainability.



## **SUSTAINABLE FASHION: A SYSTEMATIC REVIEW**

### **Statement of Key Contributions - 229 words**

The meaning of sustainable fashion is polysemous. Previous studies on sustainable products focused on the design philosophies, market trends, government policies, and incentives, as well as consumer preferences and cultural changes (e.g., Mukendi et al., 2020; Rutter, Armstrong, and Cano, 2017). This article reviews the socio-historical development of sustainable fashion in the global marketplace.

Our review article seeks to address the following research questions: (i) What are the key socio-historical transformations of sustainable fashion in the past decades? (ii) What are the frameworks that drove the socio-historical transformations and how they influence the future development of sustainable fashion in the global marketplace?

We adopted the PRISMA systematic review approach to evaluate peer-review publications with the keywords of “sustainable fashion”, “sustainable clothing”, “ethical clothing”, “ethical” fashion”, “eco-friendly clothing”, “eco-friendly fashion” on Web of Science data based. We categorized the articles into three themes: *sustainable fashion and consumer behaviors*, *sustainable fashion and new marketing practices*, and *sustainable fashion and new market ideologies*.

In summary, our systematic review offers a set of recommendations to guide academics and practitioners on how to capitalize on the sustainable fashion movement in their own spaces. Our recommendations focused on seven areas of concern, namely: sustainable product design and development, marketing of sustainable fashion, consumer culture and consumer behavior, the business environment for sustainable fashion, policy and regulations, sustainable fashion education, and impact assessment of sustainable fashion.

## Sustainable Fashion: A Systematic Review

### Extended Abstract - 868 words

Sustainable fashion has drawn tremendous attention in both academia and the industry in the past two decades. Back in 1987, the United Nations described sustainability as “the development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 1987). In light of this definition, the fashion industry was urged to develop a more environmentally-friendly approach to design, manufacture, and market their fashionable items.

In general, the sustainable fashion movement seeks to ensure fashion businesses (including manufacturers and marketers) follow an environmentally-friendly protocol in their everyday operations. It is certainly true that the emergence of sustainable fashion movements could be viewed as a societal response to the ongoing criticism of the “fast” movements (“fast fashion”, “fast food”), and planned obsolescence. Forward-thinking stakeholders and cultural advocates have initiated a number of new movements such as “slow fashion”, “sustainable consumption”, and “green consumption” in the past decades.

Governments in developing and developed countries also incentivize sustainable manufacturing and marketing activities as well as penalize disruptive business practices such as over-production, deplorable working conditions, and untreated waste. In the fashion marketplace, companies have become more sophisticated in using the term “sustainability” in their marketing (Lee and Sung, 2016). In their review of sustainable fashion consumption, Mukendi et al. (2020) identified the various types of “sustainable” consumer behavior such as reuse, recycling, and anti-consumption. Their study also offered a pragmatic view on fashion production and consumption. In a similar vein, Rutter, Armstrong, and Cano (2017) highlighted the legal and governmental standards around ethical fashion. They argued that ethics offer guideline principles to sustainable fashion and policy-makers should be actively involved to ensure the fashion industry and the consumers are confirmed to the new expectations. Ethical consumerism, in this sense, has become the new consumer culture in the 21st century.

In this paper, we present a systematic review of literature from marketing and business to unpack the socio-historical development of sustainable fashion in the global marketplace. Systematic reviews offer an opportunity to integrate and synthesize existing research studies and provide a platform for new conceptual frameworks (Palmatier, Houston, and Hullah, 2018; White, Habib, and Hardisty, 2019). Here, we followed the PRISMA systematic review approach (Moher et al., 2015) to assess recent peer-review journal publications (published in the last 5 years on the *Web of Science* database) associated with “sustainable fashion/clothing”, “ethical fashion/clothing”, and “eco-friendly fashion/clothing”. After multiple steps of screening (Figure 1), 153 articles were included in this review.

We categorized the articles into three themes based on their research focus. The first theme, *sustainable fashion and consumer behaviors*, illustrates the rise of prosocial and pro-environment consumption practices in the fashion industry. The new consumption pattern also reflects consumers’ identity project (Khare and Kautish, 2019; McNeill and Venter, 2019), knowledge (Khare, Sadachar, and Manchiraju, 2020),

attitude, perception, and behavioral intention (Kong et al., 2016; Sener, Biskin and Kilinc, 2019; Song and Ko, 2017; Vehmas et al., 2018; Wiederhold and Martinez, 2018), moral judgment (Lim, Cho and Bedford, 2019). New consumption practices such as collaborative consumption (Gopalakrishnan and Matthews, 2018; Iran and Schrader, 2017; Johnson, Mun and Chae, 2016; Pantano and Stylos, 2020), garment repair (McNeill et al., 2020) were reported in previous studies on sustainable fashion.

The second theme, *sustainable fashion and new marketing practices*, presents new marketing strategies that promote sustainable and eco-friendly fashion. Brands are actively connecting with sustainable and green labels. Previous studies identified the effects of different framing messages and keywords on promoting sustainable fashion (Evans and Peirson-Smith, 2018; Guedes, Paillard-Bardey, and Schat, 2020). New business models such as garment rental (Clube and Tennant, 2020), circular cloth/sharing economies (Norris, 2019; Ritch, 2019; Vehmas et al., 2018), and second-hand clothing/thrift stores (Liang and Xu, 2018; Park et al., 2020; Turunen, Cervellon and Carey, 2020) were gaining attention in different local markets. New standards such as sustainable certification (Lee, Bae, and Kim, 2020) were introduced in order to institutionalize sustainable fashion in the global marketplace.

Finally, the last theme, *sustainable fashion and new marketplace ideologies*, highlights how new marketplace ideologies such as “slow fashion” movement (Jung and Jin, 2016; McNeill and Snowdon, 2019; Overdiek, 2018; Sobreira et al., 2019; Trejo et al., 2019), “zero waste” design (Gam and Banning, 2020), “fair trade” consumption (Lindenmeier et al., 2017), and ethical consumerism (Lu and Sinha, 2019) disrupted the fashion industry and consumer society.

The three themes showcased several focal research areas that connected to sustainable fashion. As an outcome of this systematic review, we develop a holistic framework (Figure 2) for guiding the future exploration of sustainable fashion. Our framework suggests future research could focus on examining the following areas of concern, namely: sustainable product design and development, social media marketing of sustainable fashion, green and ethical consumer culture and consumer behavior, policies and regulations that associated to sustainable fashion production and marketing, sustainable fashion education, and impact assessment of sustainable fashion.

In conclusion, our systematic review identified the main research areas surrounding sustainable fashion in the field of marketing and business. We seek to offer a set of recommendations to guide marketing researchers and practitioners on how to capitalize on the sustainable fashion movement in developing future research agenda and marketing strategies.

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Figure 1. Systematic Review Flow Diagram

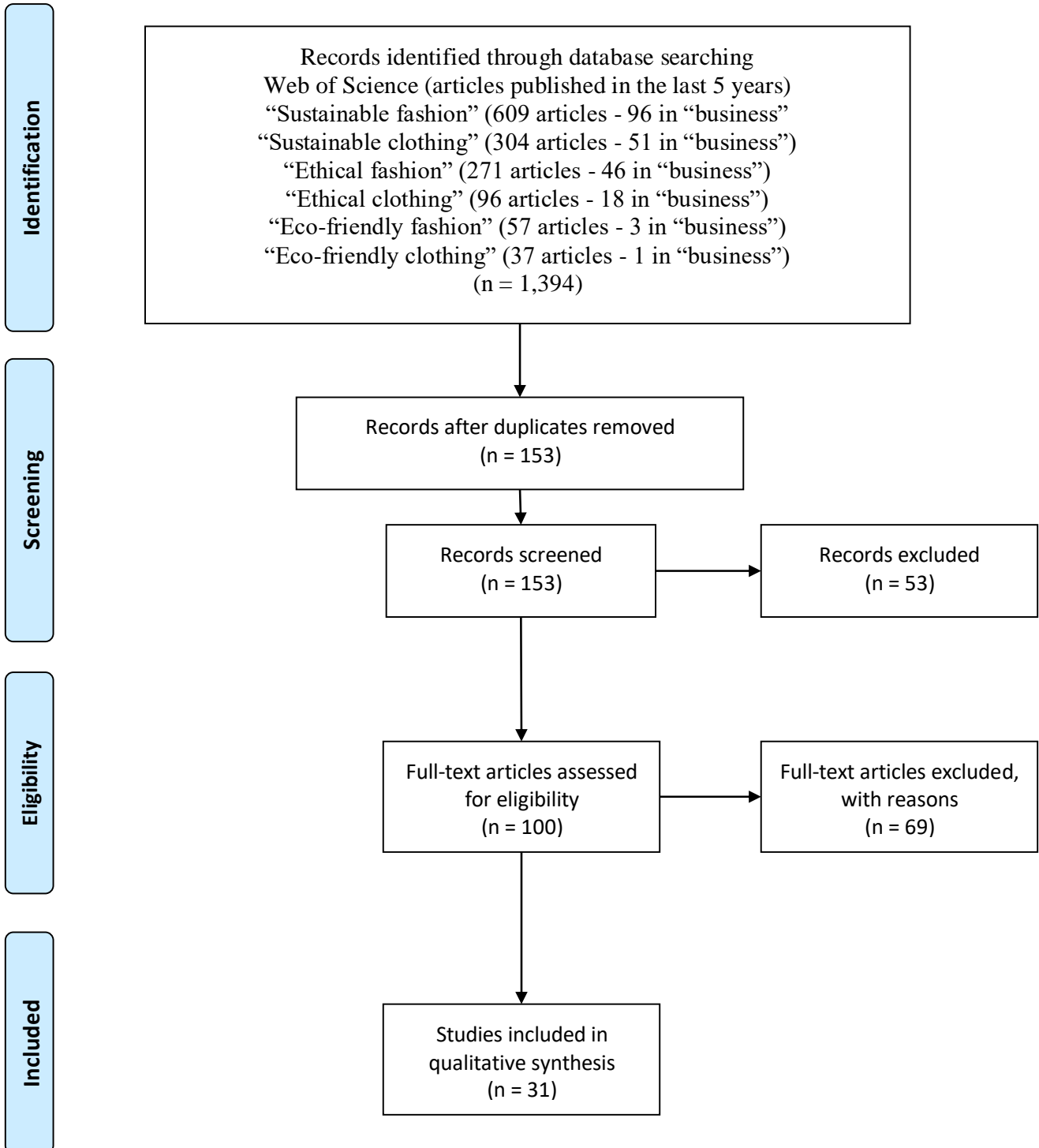


Figure 2. An Integrated Conceptual Framework for Sustainable Fashion Research and Practice





## **THE EFFECT OF GREEN ACQUISITIONS ON FIRM VALUE**

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Keywords: green acquisitions, sustainability, marketing capability, innovation capability, stock return

Description: Using the event study method and regression analysis, this study explores how green acquisition announcements affect firm stock market value and how various factors moderate the relationship between green acquisitions and firm value.

## **EXTENDED ABSTRACT**

### **Research Question**

Increasingly, corporations are expanding their green portfolios by acquiring green brands or firms in addition to acquiring green technologies as a response to sustainability trends. Yet little is known about the financial impact of such green strategy. The remarkable gap between the mounting green initiatives and the sparse research on green acquisitions provides us opportunities to identify and empirically examine different factors that may influence firm value upon the adoption of green acquisition strategy. Our research responds to appeals for green marketing research (Kotler 2011; Cronin et al. 2011), examining how green acquisitions influence firm stock market value.

To address the significant research gap, we focus on three key questions in this research:

- 1) How do announcements of green acquisitions affect firm stock market value?
- 2) How do firm marketing capability and innovation capability moderate the green acquisition – stock market return relationship?
- 3) How does industry sensitivity affect the moderating effects above?

### **Method and Data**

A green acquisition event is defined as a public announcement of a strategic acquisition between a publicly-traded acquirer and a green target firm. We collect announcements of green acquisitions conducted by US acquirers in 18 consumer-related industries from 2000 to 2018. The final dataset includes 188 announcements by U.S. public acquirers with stock prices available on CRSP. We obtain firm-level and industry-level data from multiple resources such as

Compustat. All the accounting data were derived from the last fiscal year preceding the announcements.

We employ the event study methodology and regression analyses to test the hypotheses. We use a 255-day period prior to the event date as our estimation period and calculate the abnormal returns using the market model. We sum up daily abnormal returns for different windows to calculate cumulative abnormal returns (CAR). We choose the event window with the most significant t-statistics (Cao and Sorescu, 2013) as our dependent variable, which is one day before and one day after the announcement date. We then estimate a regression model on the 3-day window CAR, with the hypothesized and control variables.

### **Summary of Findings**

Our findings provide evidence on how the stock market reacts to the announcements of green acquisitions. We investigate how different factors moderate the effects of green acquisitions on firm value. In particular, we observe that green acquisition announcements positively affect acquirers' stock market returns. Furthermore, the effects of green acquisitions on firm value are stronger for firms with superior marketing capability and limited innovation capability.

However, our results also highlight the buffer effect of industry sensitivity on the moderating roles of firm marketing capability, as well as the catalyst effect of industry sensitivity on the moderating roles of firm innovation capability. Overall, the results enable us to offer implications for both theory and practice.

### **Key Contributions**

This study contributes to the extant literature in two ways. First, we add to the literature on marketing – finance interface, identifying how firm marketing capability and innovation

capability affect stock market outcomes in response to a particular corporate green strategy – green acquisition. To our best knowledge, this is the first study to explore the green acquisition – stock market value relationship. Second, this study contributes to sustainability marketing literature (Kotler 2011). We investigate how firms confront sustainability challenges and integrate sustainable strategies to sustain their viability in the marketplace. Particularly, our findings show when a green acquisition is a promising green strategy choice in the eyes of shareholders.

This study also provides firm managers valuable implications. As an increasingly common business practice in today's corporate world, green acquisitions require significant investments and pose potential threats (e.g. suspicion of greenwashing); thus, managers might be reluctant to employ this green strategy. Our findings show investors' favorable valuation of green acquisitions, suggesting financially sufficient firms could consider green acquisitions as favorable strategy choices. Furthermore, this study indicates when firms should engage in green acquisitions. Namely, firms with superior marketing capability and inferior innovation capability are more likely to benefit from green acquisitions.

References are available upon request.

**THE ROLE OF CAPTIONS IN THE CONTEXT OF SUSTAINABILITY  
ADVERTISING AND THEIR IMPACT ON SOCIAL MEDIA ENGAGEMENT.**

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**EXTENDED ABSTRACT:**

Sustainability-advertisements are often shared on social media, with users voicing their opinions about them. Prior research shows that social-media users' opinions can have detrimental effects on ad and brand attitudes and purchase behaviors; but not much is known about the effects of such opinions within a sustainability-advertising context in terms of social-media engagement and further sustainable behavior. This conceptual paper focuses on the role of social-media captions (positive vs. negative) accompanying a sustainability-ad on social-media and their impact on other users' social-media engagement with the ad and their behavioural intentions (i.e., purchase and further sustainable-behaviours). Through the lens of 'Self-Consumption-Vision' (SCV), we argue that a positive caption will lead to greater SCV than a negative one, due to heightened information processing associated with higher acceptability of positive sustainability-related messages. Grounded on the 'Pleasure, Arousal, Dominance' (PAD) emotional state model, higher SCV will then lead to greater social-media engagement, due to the increased PAD associated with this heightened information processing. Theoretical and practical implications for social-media engagement within the sustainable-advertising arena are elaborated in the paper.

**Research question:** How the concept of self consumption vision and emotion can explain users' social media engagement with a sustainability ad, subsequent purchase intention of the brand and other sustainable behaviour depending on the encounter of positive or negative caption accompanying that sustainability ad in social media?

**Key contribution:**

This study extends the theory of Self Consumption Vision by incorporating all the dimensions of Pleasure Arousal Dominance theory of emotion to understand the mechanism to influence ad attitude and resulting social-media-engagement in the context of sustainability. This study also attempts to advance literature on sustainability by investigating the role of social media environment on consumers' acceptance of sustainable-products. For managers, this paper's objective is to provide an innate understanding of consumers' adaptation process of the sustainable behaviour, which will provide the marketers' with a roadmap of consumers' sustainable behaviour depending on other consumers' opinion.

**Keywords:** Sustainability-ad, social-media-engagement, Self-consumption-vision, Pleasure-arousal-dominance model, theory of social influence

**Description:** Conceptual paper on the difference in impact of users' positive and negative caption accompanying a sustainability ad in social media on other users' social media engagement with the ad and behavioural intentions in terms of brand purchase and other sustainable behaviour.

## **THIS IS NOT MINE ANYMORE: THE EFFECT OF SHARING IN COLLABORATIVE CONSUMPTION**

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**Key words:** collaborative consumption; sharing economy; psychological ownership; sustainability

**Description:** This study examines the effect of sharing on how peer service providers perceive and evaluate their assets in collaborative consumption.

### **EXTEND ABSTRACT**

#### **Research Question**

The rise of the sharing economy shifts traditional ways of consumption to new forms of collaborative consumption (CC), where peer-to-peer sharing becomes popular. While past research on CC has paid significant attention to consumers (e.g., Milanova & Maas, 2017; Möhlmann, 2015), little is known about its impact on peer service providers who are equally important in the sharing services (i.e., an Uber driver or an Airbnb host). The current research seeks to investigate this understudied area by examining the potential effect of sharing one's resources on perceived ownership and its behavioral consequences.

#### **Method and Data**

*Study 1.* 114 participants completed a single factor between-subject study with two levels (participation in CC: yes vs. no). Participants were randomly assigned to a scenario either participation in CC (they shared their car for ride-sharing services) or not (they used their car for commuting to work). In terms of measures, they were asked to indicate the year when they would like to sell off the car and their likeliness to purchase another vehicle for their personal usage. They also completed a measure for perceived ownership (Shu and Peck 2011).

*Study 2.* 84 participants completed a single factor between-subjects study with two levels: (extent of sharing in CC : low vs high). We manipulated the extent of sharing in CC by asking the participants to imagine themselves as: 1. either a service provider in a car-sharing scenario wherein he/she drives consumers for about 500 miles/week or 2. A service provider in a car-leasing scenario wherein consumers lease his/her car and use it for the same distance. All participants then answered the same questions as in study 1.

### **Summary of Findings**

A one-way ANOVA revealed a significant effect of the condition on the year when the participants intended to sell the vehicle off ( $F(1, 112) = 10.505, p = 0.002$ ). Specifically, when the participants were a part of CC as peer service providers, they intended to sell off their car sooner as compared to those who did not participate in CC and used it for commuting ( $F(1, 112) = 10.505, p = 0.002$ ). Similar results were noted with respect to the participants' likelihood to purchase an alternate vehicle. Mediation analysis showed that both effects were mediated by the loss of perceived ownership.

Similarly, when the participants were a part of the high sharing condition, they intended to sell off their car sooner as compared to those who participated in the low sharing condition ( $F(1, 81) = 4.19, p = 0.04$ ). Similar results were noted for the participants' likelihood to purchase an alternate vehicle ( $F(1, 81) = 8.39, p = 0.005$ ).

### **Key Contributions**

In the current study, we show that CC may indeed lead to some unintended outcomes which the past literature has overlooked. Theoretically, these novel findings add to the previous literature on CC by first drawing attention to the peer service providers in sharing services. Second, our results shed light on how sharing one's resources might lead to consumption behaviors deviating from the sustainable practices that CC fosters. This is in fact in line with recent research that finds that food-based CC actually leads to over purchase, overconsumption, and food waste (Parker, Umashankar, & Schleicher, 2019). In addition, we complement the research on ownership, especially the "endowment effect" by showing a contrasting effect when sharing leads to decreased ownership and psychological depreciation of the shared resources. Managerially, our findings point out an alarming phenomenon for mediating platforms as well as policymakers as to how to tackle such negative effects when participating in CC as resource providers.



**Public Policy,  
Macromarketing and  
Ethics**

## CONSUMER RESPONSE TO GENDER-BASED PRICE DISCRIMINATION

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**Keywords:** Gender discrimination; Price discrimination, Pricing, Pink Tax.

**Description:** This research reveals that the same economic price discrimination results in a more unfavorable consumer responses when the discrimination is perceived to be based on gender than when it is not, which implies that the consequences of experiencing gender-based price discrimination are not merely economic.

### EXTENDED ABSTRACT

#### Research Question

Price discrimination—pricing the same product/service differently for different customer segments—is a common marketing practice. One criterion often used to segment customers and to price discriminate is gender. Gender-based price discrimination can take place for products and services that are strictly identical for both men and women (Salman & ElAyoubi, 2019). Often, in instances of gender-based price discrimination, women are charged a higher price than men, a phenomenon known as “pink tax”. Such price discrimination raises ethical concerns as there is no way to justify why the same product/service should be offered at a higher price to women on the sole basis of their gender.

Firms that practice gender-based price discrimination do so because they see it as an opportunity to increase profit (Mohammed, 2016). This reasoning, however, does not take into consideration that female customers, when finding out they have been charged more because of their gender, may respond negatively (e.g., low loyalty intention). Such unfavorable responses would be detrimental to the firm’s profit in the long run. This research is undertaken

to determine how female consumers respond to price discrimination when this discrimination is based on gender versus not based on gender.

### **Method and Data**

I conducted a scenario-based experiment in which I manipulated the type of price discrimination (gender-based vs. not gender-based) between subjects. 122 women were recruited to participate and asked to imagine going to AutoClinique, a local car repair shop, for getting their car's radiator replaced and being charged \$550 for it. They were then asked to imagine having a conversation with their friend who owns a car strictly identical to theirs and who also went to AutoClinique for the same service but who was charged only \$400. To manipulate the type of price discrimination (gender-based vs. not gender-based), the gender of the friend was manipulated so that participants would infer the motive for price discrimination to be based on gender or not. That is, in the gender-based price discrimination condition, the friend was presented as male ("John") so that participants attribute the price difference to gender. Conversely, in the not gender-based price discrimination condition, the friend was presented as female ("Jennifer"). After reading the scenario, participants were asked to indicate on 7-point scales how severe the price discrimination incident was, as well as their likelihood to complain and their future intentions (repurchase and recommendation) towards AutoClinique.

### **Summary of Findings**

A manipulation check confirmed that perceived gender-based discrimination was higher in the gender-based price discrimination condition ( $p < .001$ ).

Using PLS-SEM analysis, I found the type of price discrimination (gender-based vs. not gender-based) to be a significant predictor of perceived severity of the price discrimination ( $\beta = .161$ ,  $p < .05$ ), which in turn was a significant predictor of likelihood to complain ( $\beta = .567$ ,  $p < .001$ ) and of future intentions towards the firm ( $\beta = -.362$ ,  $p < .001$ ). In sum, gender-based price

discrimination was perceived to be a more severe incident than price discrimination that is not based on gender, which led to higher likelihood to complain and to lower future (repurchase and recommendation) intentions.

### **Statement of Key Contributions**

Prior research on gender-based price discrimination has largely focused on the legal and economic considerations related to this marketing practice. Surprisingly, no research has investigated how female consumers respond to gender-based price discrimination. I undertook this research to fill this gap and showed that gender-based price discrimination results in a more unfavorable consumer response than general price discrimination (i.e., not based on gender). I advance that gender-based price discrimination is not only matter of being charged more but it is also a matter of why one has been charged more, and that is why experiencing gender-based price discrimination feels more severe than experiencing general price discrimination.

The main reason why firms practice price discrimination is to increase profit. However, price discrimination leads to unfavorable consumer responses—high likelihood to complain, low future intentions. The present research demonstrates that the consumer responses to price discrimination are even more unfavorable when such price discrimination is based on gender. Thus, the extent to which gender-based price discrimination pays off for firms is questionable: while it may increase profit in the short run, it may turn away customers in the longer run.

References are available upon request.

**HOW AND WHY THE COVID-19 PANDEMIC AND MEDIA AFFECT US  
DIFFERENTLY ACROSS SPACE AND TIME**

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Keywords: COVID-19 pandemic, media, sociocultural evolution perspective, ethics, goal-directed behavior

Description: By drawing insights from several theoretical perspectives (sociocultural evolution and goal-directed ethical perspective) and the relevant literature (crisis), and by offering an integrated model and evaluating it in important and interconnected areas—the COVID-19 pandemic, media, goal-directed behavior, and evolution—this paper demonstrates how and why the COVID-19 pandemic and media affect us differently across space and time, thereby aiding us to develop effective strategies and tactics in the fight against the COVID-19 pandemic.

**EXTENDED ABSTRACT**

**Research Question**

How and why do the COVID-19 pandemic and media affect us differently across space and time?

### **Summary of Findings**

To better explain and predict different responses and consequences associated with the COVID-19 pandemic and media, this paper integrates insights from several theoretical perspectives and the relevant literature. In doing so, the paper proposes and evaluates an integrated model in important and interconnected areas—the COVID-19 pandemic, media, goal-directed behavior, and evolution.

### **Key Contributions**

To provide a better understanding regarding how and why the COVID-19 pandemic and media affect us differently across space and time, this paper contributes to the literature by first drawing insights from the relevant literature (crisis) and several theoretical perspectives—sociocultural evolution perspective (Campbell, 1965) and goal-directed ethical perspective (Wu, 2019; Wu et al. 2019)—and then by offering an integrated model. In their future endeavors, scholars and practitioners can apply, modify, and extend our studied context, theoretical approaches, and proposed integrated model. By evaluating the proposed model in critical areas—the COVID-19 pandemic, media, goal-directed behavior, and evolution—this paper demonstrates how and why the COVID-19 pandemic and media affect us differently across space and time, thereby aiding us to develop effective strategies and tactics in the fight against the COVID-19 pandemic.

References are available upon request.

## **Extended Abstract**

### **Mapping consumer perception on price fairness and intention to report suspected price-fixing activities in Hong Kong**

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**Acknowledgement:** “The work described in this study was fully supported by a grant from the Research Grants Council of the Hong Kong Special Administrative Region, China (Project No. “UGC/FDS24/B07/19”).

**Keywords (4-5 keywords):** Price-fixing, Price fairness, Interviews

**Description:** In this exploratory qualitative study, we investigate variables that can be used to influence consumer response, to increase consumer reporting of suspected price-fixing activities to authorities.

**Research Question:** What are the factors influencing intention to report suspected price-fixing cases? What is price fairness? Is the same price fair?

**Method and Data:** The method of interpretive semi-structured interviews was used in this study to allow an in-depth understanding of informants’ perceptions on price-fixing and reporting of suspected activities of price-fixing to the government. In this early stage of our investigation, qualitative interviews allowed for the collection of rich information to assist in



the generation of new insights (Creswell 2003). In addition, interviews allowed for a detailed elaboration of informants' opinions and shared consumption experiences (Belk, Fischer & Koziens 2013). Consistent with interpretive consumer research (e.g., Fournier, 1998, Ahuvia 2005, Arsel 2017), we selected ten informants (six men and four women) using the convenience sampling technique. The age of informants ranged from 24 to 60 years ago.

Depending on the flow of the interviews, certain topics were covered in a loose sequence. For example, the informants were asked whether they had noticed any products and services that were sold at the same price for a consistent period of time. Informants shared their personal lived experiences and revealed their attitudes towards price-fixing, price (un)fairness, and intention to report any suspected price-fixing activities in their interview.

**Summary of Findings:** Our qualitative data analysis revealed underlying factors that influenced informants' intentions to report suspected price-fixing activities: (1) *“Same Price Not at All Fair”*, (2) *“Low Trust in Government”*, and (3) *“Low Perceived Consumer Effectiveness”*.

(1) Based on previous studies, consumers tend to see prices as unfair if they pay a higher price in one store, in comparison to other stores (Bolton et al. 2003 and Xia et al. 2004). According to this understanding, consumers perceive that prices are fair if products are identical in competing stores. Our qualitative findings, however, to some extent, contradicted this understanding.

(2) While almost all the informants disapproved of price-fixing activities, they showed little interest in reporting suspected price-fixing activities to the government due to low trust in the Hong Kong government. More than half of the informants expressed their disappointment in the government and explained why they have no or low intention to report suspected price-fixing activities to the government.

(3) Low perceived consumer effectiveness is another theme that emerged from the interview data, reducing informant interest to report suspected price-fixing activities to the government. In short, consumers do not think they can make a difference in improving the price-fixing situations in Hong Kong.

**Key Contributions:** 200 words

The findings of this research will be used in empirical research to design a nudge, to increase consumers' reporting of suspected price-fixing activities, by making minor changes to the reporting environment. By a nudging intervention, we are referring to an intervention that alters consumers' reporting behaviour, via changes to their "choice architecture... without forbidding any options or significantly changing their economic incentives." (Thaler & Sunstein 2008, p. 6).

PROPOSAL FOR 2021 AMA WINTER EDUCATORS CONFERENCE

THE HUMAN SIDE OF MARKETING IN THE AGE OF DIGITAL TRANSFORMATION

“Marketing Vice: The Influences and Impacts of Vice Platforms, Products, and Services”

**Session Chair**

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**Overview**

Vice is often defined as moral depravity or corruption, or a habitual shortcoming (Merriam-Webster Dictionary). Yet products and services that sell or deliver vice have been a key part of

markets and marketing despite the stigma often attached to them. Tobacco and alcohol advertising were ubiquitous in previous decades, and government restrictions on gambling have long limited widespread adoption. The presented projects will explore different vice markets and raise valuable questions regarding how vice in marketing changes over time, as well as the systems and platforms that develop around vice markets.

Vice markets can comprise either products or services, and often platforms develop that cater specifically to vice markets. The session explores each of these components of vice markets and the impact they may have on marketing outcomes. The session will first explore the illicit platforms that facilitate vice markets by investigating how these platforms close or collapse and how platform owners may utilize scam exiting as a profit mechanism (Thomaz, Clark, Wiedermann, & Hulland). A second study shifts to vice products and investigates how consumers may utilize food bloggers as a vice for managing and controlling their diets. In the third study, the authors investigate the cannabis product market by examining cannabis plant strains and how customer demand and production supply characteristics can impact strain adoption and success (Smith & Olsen). In the fourth session a shift to vice services will investigate the use of skeuomorphic design elements (design elements resembling real-world counterparts) in gambling and investigate their impact on customer gambling behavior (Meng & Leary). Insights from all four studies will expand knowledge on platforms, products, and services that are often difficult to obtain given the murky and obfuscated state of many vice markets.

The projects in this proposed session bring together a diverse set of methodological approaches for gathering and analyzing research data. These include large scale web scraping and panel data

analysis (Smith & Olsen; Thomaz, Clark, Wiedermann, & Hullah) as well as consumer lab and online experiments (Yule, Mathras, & Grinstein; Meng & Leary). This methodological diversity should help to make this session appealing to a broad audience.

### **Session Time Allocation**

To help facilitate lively discussion, each presentation will be restricted to fifteen minutes followed by 5 minutes of questions from the audience. A brief overview at the start of the session will be provided to position the papers. Paper presenters are indicated by an asterisk in the extended abstracts that follow.

### **Audience Interest**

The audience for this session is likely to consist of researchers interested in marketing policy and ethics, marketing management, marketing strategy, vice products and services, hedonic products and services, and vice platforms.

### **Completeness of Research**

Data has been collected for all four of the papers in the proposed special session. In all cases, data analysis is either well underway or complete. We expect that all four presentations will be well polished by the conference.

## **Presentation 1**

### **Designed To Go Dark:**

#### **An Examination of Incentives for Digital Black Markets to Self-Terminate**

\*Felipe Thomaz, University of Oxford

Gregory Clark, University of Oxford

Alexander Wiedemann, Davidson College

John Hulland, University of Georgia

Digital black markets operating in the dark web are claimed to close for a number of reasons: law enforcement operations seizing their servers, hackers stealing their funds, competition, and fraud. Here, we consider the financial structure of these markets and develop a mathematical proof showing that, unlike legal counterparts, they have a built-in rational expectation to cease operations. In essence, as they grow, it becomes more likely that operators will choose to close their market and steal money from customers and vendors (termed an “exit scam”). They are, then, designed to go dark from the onset of operations; when fee structures and transactional norms are established. The introduction of varying levels of law enforcement pressure only serves to accelerate the process.

## **Presentation 2**

### **Food Bloggers: A Consumer Vice for Food Management**

\*Jennifer Yule, University of Edinburgh

Daniele Mathras, Northeastern University

Amir Grinstein, Northeastern University

Over one third of American adults follow a specific diet such as paelo, keto or intermittent fasting, and 40% claim to be regular users of food blogs (International Food Information Council Foundation 2018). Food bloggers, many of whom are online influencers, often promote specific diets or restrictive eating plans which may contradict scientific advice on healthy eating. We posit that consumers use food influencers as a vice for controlling and managing their diet. Of interest is how consumers decide which food influencer is an expert, whose advice is credible and trustworthy, and if food posts are entertainment or even counter-productive to health goals. In the present study, results of four experiments found that posts from qualified food bloggers (e.g., registered dietitians), compared with unqualified food bloggers (X), have a more positive impact on healthy eating intentions and behaviors (Y) because their expertise (M1) engenders feelings of trustworthiness (M2) regarding the provided health information (serial mediation model). This pattern only holds for participants of average and high (+1 SD) BMI, not for those with low (-1 SD) BMI. Additionally, the positive effect of qualified food bloggers was most prevalent when post content combined information and motivation, versus just informational or just motivational content.

### **Presentation 3**

#### **Cannabis Product Strain Performance: Production and Customer Influences**

\*Keith Marion Smith, Northeastern University

Mitchell C. Olsen, University of Notre Dame

The cannabis product market, long outlawed or restricted within the United States and other Western markets, has been increasingly legalized in recent years. Despite the market's basis in a single psychoactive ingredient (THC), firms have over 3,400 different cannabis plant strains available for inclusion in different products. Much of the diversity in the cannabis market is driven by the use of different plant strains that may generate different customer outcomes, including taste profiles, psychoactive effects, and medical effects. The popularity of specific strains may be driven by different factors such as consumers' perceived quality and the effects they expect the strain to produce. What consumers often do not see, but may be influenced by, are the strain's product supply characteristics such as its difficulty to grow, its harvest yield, and its time to harvest. This paper investigates the influence of customer demand and production supply characteristics on cannabis strain popularity. The authors capture the customer and production characteristics of over 3,400 cannabis strains and the product availability of these strains. The results illustrate the role that customers and firms may differentially have on product strain selection and integrate customer sentiment metrics and product manufacturing intensity as influences on strain success.

#### **Presentation 4**

#### **The Effect of Skeuomorphic Design Elements on Gambling**



\*Matthew D. Meng, Utah State University

R. Bret Leary, University of Nevada-Reno

Skeuomorphism is a design style that incorporates outdated aspects in modern designs. A strong proponent of skeuomorphism is the gambling industry, with many digital games appearing similar to analog games (e.g., barrels “spinning” on digital slot machines), even though these elements serve no functional purpose. Despite the extensive use of skeuomorphs in modern gambling interfaces, however, little research has examined their link to gambling behavior and, in particular, their potential negative effects on well-being. Through three studies, the current research finds evidence that skeuomorphic design elements (vs. flat design) can increase both gambling intention and actual amount gambled in games of pure chance. We also test the efficacy of information provision through a warning label to curb such behavior, finding that highlighting the uncontrollability of skeuomorphic games significantly reduces intended amount bet, thus impacting well-being. We discuss the implications of these findings for consumers, advocacy groups, policy makers, and marketers.

# Trust and Marketing Systems: Evidence from a bazaar in India

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*Himadri Roy Chaudhury, Xavier School of Management Jamshedpur*

*Prashant Mishra, Indian Institute of Management Calcutta*

**Keywords:** bazaar, social trust, socio-economic institution, contestation

**Descriptions:** This paper seeks answers to few fundamental questions about trust between marketing systems and the ecosystem surrounding it in informal market

## EXTENDED ABSTRACT

### Research Question

Bazaar is an informal marketplace which has an ecosystem of retailers who transact with unwritten contracts and base their transactions, on trust. We sought to understand the subsystems which perpetuates the informal marketing system. The resolution of issues like spatial politics, quasi trust and contestation in upholding social trust also needed to be investigated in the context. We also looked to investigate the role of the bazaar samiti or association of retailers as a guardian of retailers and scrutinize the norms set by samiti to maintain social trust. We could narrow down are questions to three and they are: a) How does trust thrive in a non-contractual environment of an in informal market? b) How does an informal marketing system get perpetuated? c) How are the issues in the ecosystem of a market system get resolved due to the existence of social trust?

### Method and Data

We conducted an ethnographic inquiry in a bazaar established 60 years ago in Southern Kolkata. The first author stayed in the vicinity of the bazaar situated in the southern part of Kolkata. Kolkata is chosen as context for the study as the city witnessed neoliberal shifts in

Indian economy with increasing emphases on private enterprises and markets. We divided the bazaar into three zones to categorize the level of marginalization and visibility status of the seller's selling space in the bazaar. We considered participant observation and informal interviews, followed by shortlisting 15 respondents from all the three zones taking five from each zone. After informing the participants about the study these respondents were formally interviewed and the qualitative data was generated. We generated themes after analysis and going back to data iteratively.

### **Summary of Findings**

The paper completes the triad of the phenomenon of cooperation and competition with contestation. Cooperation and competition are one of the most studied phenomena in informal as well as formal marketing system but they do not explain the intra-retailer dynamics where retailers are marginalized and do not own the property where they sell. Another major finding of the paper is irradiating at the role of spatial politics in shaping the foundations of trust in informal marketing systems and giving rise to quasi trust.

### **Key Contributions**

We offer insights by pointing to Granovetter's socio-economic institutional mechanism and trust that turns bazaar participants interactions into a system of unorthodox transactions. The paper discusses informal market and suggests policy implications by detailing possible contestation and spatial problems in a informal markets

*References are available on request*

# **Sales Management and Personal Selling**

## **DIGITAL SELLING READINESS: AN INTERFUNCTIONAL FRAMEWORK**

**Ryan Mullins**

Clemson University

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**KEYWORDS:** Digital selling readiness, Digital selling implementation, Implementation climate, Outcome framing, Marketing-sales interface

**DESCRIPTION:** We address the challenges in implementing a digital selling approach by proposing and testing novel framework of drivers, interfunctional contingencies, and strategic outcomes of digital selling readiness.

## **EXTENDED ABSTRACT**

### **Research Question**

Digital selling is essential for sales organizations to remain viable in today's competitive marketplace. Sales leaders using digital selling effectively report higher revenue growth, profitability, and for public companies, twice the return to shareholders (Angevine, Plotkin, and Stanley 2018). Recognizing these trends, a theme has emerged that encourages researchers to understand new selling competencies and improve digital selling effectiveness. However, previous literature fails to provide a framework to understand what drives salespeople's digital selling implementation, leaving us with little guidance to explain salespeople's reluctance to change. Importantly, digital selling implementation represents a significant change to salesperson roles that is distinct from automating sales tasks, managing information, or supporting relational selling efforts (Singh et al. 2019). For example, salespeople implementing digital selling must grapple with new role expectations such as an increasing number of customer touch points, adaptable demonstrations, intra-organizational dependencies, and selling competencies (e.g., social, analytics, video). Drawing from the strategic change literature (e.g., Chonko et al. 2002; Sarin et al. 2012), we address this void by conceptualizing and proposing an interfunctional framework for digital selling readiness to understand salespeople's perceptions of this change and its implications for strategic outcomes.

### **Method and Data**

To empirically test the model, we relied on survey data following the recommendations outlined by Hulland and colleagues (2018). Specifically, we leverage the use of multiple data sources for the independent and dependent variables to help reduce linkages from the same respondents. To

align with our research focus on salesperson's digital selling readiness and behaviors, we focused on the B2B context. The criteria for selecting companies for this study included: (i) the organization has operations in a B2B market, and (ii) the organization has implemented some type of digital selling initiative recently. Our measures of dependent and independent variables were separated from one another physically within the questionnaire, as well as temporally. We collected both self-reported and supervisor reported measures of digital selling behaviors and digital selling effectiveness. These measures were captured in multiple organizations within a cross-industry sample of salespeople and their respective sales managers. Given the nested nature of our data, we estimate our model using a multilevel path analysis to control for variation across levels and estimate the model's relationships simultaneously.

### **Summary of Findings**

Results demonstrate support for our proposed model. Findings show that digital selling psychological climate and outcome framing are two critical drivers for digital selling readiness. However, results also reveal a strong influence that marketing has over these relationships. Sales-marketing joint rewards increase the influence of digital selling climate on readiness. Surprisingly, sales-marketing rivalry presents countervailing influences by weakening the role of digital climate, but strengthening the role of outcome framing, on readiness. Finally, we find a mediation effect between digital selling readiness, behavior, and effectiveness, illustrating a critical causal chain for successful digital transformation. Our findings not only help illustrate the interfunctional considerations leaders must consider for digital selling implementation, but also bridge the sales-marketing interface literature into the digital selling domain.

### **Key Contributions**

From a theoretical standpoint, we contribute to understanding digital selling implementation in the strategic change domain. For example, we complement research that examines the role of sales managers in implementing strategic changes to the sales force (Sarin et al. 2012) by providing nuanced insights into the roles of climate and outcome framing for digital selling readiness. From a managerial perspective, we help leaders identify the drivers and conditions to evaluate digital selling readiness in their sales organization. A readiness assessment is critical to learn whether salespeople are willing and able to leverage the investment made in digital assets across the firm.

Secondly, marketing and sales must often coordinate tasks to help realize each function's goals and objectives (Rouziès et al. 2005). Unfortunately, prior research fails to account for the sales-marketing interface when examining strategic implementations. This is especially problematic in digital selling implementation contexts, where sales-marketing activities are often more interdependent. Thus, we begin to address an important question, "How should leaders align sales and marketing to implement digital selling effectively?" Answering this question is critical given the strong influence sales-marketing dynamics play on a host of implementation and performance outcomes (Rouziès and Hulland 2014).

References available upon request.



## **How Informal Competition drives the Sales of New Products**

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Keywords: Informal competition, Sales of new products, Emerging markets

## Research Motivation

Informal competition (IC)— competitive pressure from enterprises that are unregistered [informal] but derive income from the production of legal goods and services (Nichter and Goldmark, 2009, p. 1455)—has long been a source of concerns for managers and policy makers in emerging markets. According to the International Monetary Fund (IMF), the operations of informal competitors (i.e., informality) limit the scale of production, impeding firm’s productivity and innovation (Medina and Schneider, 2018). This assertion aligns with the European Economic and Social Committee (EESC) viewing informality as a phenomenon that affects enterprises’ growth and opportunities for innovation, and therefore reiterating the importance of combatting it (Palmieri, 2014). Informal competitors in the retail sector gain up to 13% price advantage by avoiding taxes and buying goods from informal suppliers (Farrell, 2004)—which naturally puts formal enterprises (i.e., businesses that are registered) at a disadvantage in emerging markets with high prevalence of IC. Industry reports show that IC prevents formal enterprises from striving for performance and potentially discourages “global retailers from making investments and bringing in new technology and best-practice operating methods” (Farrell, 2004, p. 32). Yet, research suggests that innovations targeting low-income consumers in emerging markets may well be profitable (Prahalad, 2012). The introduction of new products in emerging markets has become a key issue in marketing research (see Arunachalam et al., 2019). Given the potential risks inherent in the marketing of new products in emerging markets crippled by IC, managers of formal enterprises are in dire need of knowledge enabling them to understand whether or the conditions under which product innovation pays-off in these markets.

Research explains the success of new products by referring to product characteristics, strategy, process, and marketplace characteristics (Ayers et al., 1997, Henard and Szymanski, 2001, Szymanski et al., 2007). Studies of marketplace argue that competitive intensity likely

erodes the financial gains from the introduction of new products (Artz et al., 2010, Greenhalgh and Longland, 2005). Research in this tradition assumes that customers have many alternatives under high competitive intensity (Jaworski and Kohli, 1993). However, this assumption emphasizes market-oriented strategy while paying little attention to formal enterprises' engagement in non-market efforts as a direct strategic response to intensive competition, namely intensive IC. Non-market efforts are defined as enterprises' coordinated actions to enhance performance by managing the institutional context of market competition (Baron, 1995, Lux et al., 2011). Although marketing scholars have suggested a holistic market approach that features non-traditional market actors (Mele et al., 2015), research has hardly explored this idea, especially in the context of IC. With that in mind, our research objective is twofold. First, this paper develops and tests the proposition that non-market efforts serve as a direct mechanism through which formal enterprises achieve high performance from new products when dealing with intensive IC. Second, the paper takes into consideration firm- and country-related factors that affect the IC-SNP mediated relationship. We argue that the engagement in non-market efforts, as a direct response to IC, intensifies when formal enterprises introduce new products into the market. Furthermore, following the institutional support argument, we posit that countries' differences in terms of their efficiency of resolving commercial disputes (EoRCD) should affect the moderated-mediation relationship between IC and SNP.

### **Methodology**

We drew our sample from the 2011-2016 version of the Business Environment and Enterprise Performance Surveys (BEEPS). The dataset was collected by the World Bank and the European Bank for Reconstruction. According to the World Bank, respondents consisted of business owners or top managers. Prior prominent academic studies have featured data from the World Bank Survey (Lee and Weng, 2013, McCann and Bahl, 2017, Shinkle and

McCann, 2014). Our sample includes 2,307 formal firms operating in 31 countries located in Eastern Europe and Central Asia. To remain consistent with our goal of determining how IC increases the sales of new products, we considered formal firms that had introduced a significantly improved or a new product over the last 36 months.

### **Summary of Findings**

The results showed that IC has a significant and positive effect on the enterprises' decision to allocate resources to non-market efforts. Time allocation was found to influence sales of new products. The overall findings support the argument that IC positively drives SNP through resource allocation to non-market efforts. Furthermore, we found a significant interaction between IC and product newness to the market. Time allocation to non-market efforts is stronger among formal firms whose products are completely new to the market, compared to those whose products are not new to the market. Finally, the results indicated a significant interaction between time allocation to non-market efforts and the countries' EoRCD. Among formal enterprises whose products are new to the market, the positive effects of time allocation to non-market efforts decreases as EoRCD increases. These effects disappear when EoRCD is high.

### **Key Contribution**

The current paper contributes to the strategy and sales literature in several ways. First, we develop and test a new mechanism through which formal enterprises increase their SNP when dealing with high levels of IC. Informal competition has been unexplored in marketing strategy research—namely, research on product innovation and sales performance. Research in this tradition tends to extend existing theories developed in the context of mature economies to emerging markets. That is concerning since such extension raises questions about the degree to which existing theories are suited to the unique economic context of

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emerging markets crippled by IC. The current research addresses such concern. Prior reports show that IC constitutes a serious threat for formal enterprises performance (Dutta et al., 2011, Farrell, 2004, Medina and Schneider, 2018). There is a dearth of research on how formal enterprises can achieve higher sales performance when being faced with intensive IC. Our investigation demonstrates that the allocation resources to non-market efforts paves a valid path for achieving higher sales from new products in the context of IC. Second, our research connects market- with non-market-oriented efforts to explain sales performance. In the context of IC, this approach departs from prior research that addresses market and non-markets efforts as two independent factors (e.g., Li and Zhang, 2007). There is no literature on the integration of market- and non-market-oriented efforts (Mellahi et al., 2016). We show that market-oriented initiatives, such as the introduction of new products into the market, positively impact formal enterprises' engagement in non-market initiatives as a strategic response to intensive IC—leading to sales performance. Third, the findings extend the new product sales literature by underlying the positive influence of resource allocation to non-market efforts on the sales of new products. They subscribe to the idea of a holistic approach of markets that include non-traditional market actors (Mele, Pels and Storbacka, 2015). Finally, this paper demonstrates that the moderated-mediation relationship between IC and SNP is a function of the institutional context. We address the call for further research on the contingent effect of the institutional environment on the impact of non-market efforts on enterprise performance (Mellahi, Frynas, Sun and Siegel, 2016). Our findings imply that marketers should be mindful of the institutional environment when engaging in non-market efforts as a means to drive SNP in the context of IC.

**Internal marketing under the platform era: the influence of gamification app design on mobile service providers' performance**

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**Keywords:** Gamification, Internal Marketing, Platform Economy, Gig Work, Service Provider

**Description:** This paper aims to study about how to implement internal marketing strategy through the supporting system and motivation. The strategy is completed through the design of gamification app and the internal transmission mechanism. The paper will eventually explore the influence of internal marketing strategy on the service providers' behavior outcomes under the background of mobile work and platform economy.

## EXTENDED ABSTRACT

### Research Question

The core research questions are as follow: how the external gamification design affects the service provider's attitude towards gamification, and how the gamification internal transmission mechanism transform the service provider's attitude towards behavioral outcomes. To be more specific, (1) How the design of gamification system with the internal marketing strategy: provide needed support systems in apps affect service provider's attitude towards gamification based on TAM theory (Davis 1989), and (2) How the design of gamification element with internal marketing strategy: Internal promotions in apps affect service provider's attitude towards gamification based on motivation theories (Vallerand 1997). (3) What is the internal transmission mechanism of gamification, among gamification attitude, gamification knowledge, and gamification engagement? (4) How the gamification engagement influence service provider's work performance and work turnover as internal marketing objects.

### Method and Data

This research selected food deliveryman of Meituan in Shenzhen (the fourth largest city in China with six districts with more than a million-permanent population) as the population. We randomly selected 24 streets from 6 main districts, and randomly selected no less than 20 food deliverymen from each street. A total of 602 questionnaires were given out, and 529 responses were collected, which indicates an overall response

rate is 87.87%. This response rate is quite high compared with a recent study (Farooq et al. 2018). The sample includes 520 males and 9 females with an average age of 28 years old. Nearly 37.6% of the interviewees have the highest education level in junior schools with 23.4% in high schools. In addition, 38.8% of interviewees are married.

We tested the proposed model using SmartPLS. According to the PLS-SEM analysis procedure and guideline (Henseler, Hubona, and Ray 2016), our research firstly makes an examination of the measurement model, followed by evaluating the structural model with path analysis.

### **Summary of Findings**

The findings indicated that perceived ease of use and perceived usefulness of the gamification system design had a positive effect on attitude towards gamification. Furthermore, both social and monetary motivations increased the positive attitude toward gamification based on perceived gamification elements design on the mobile app. Moreover, Attitude towards gamification had a direct effect on gamification engagement, and an indirect effect on gamification engagement by gamification knowledge. Lastly, A new concept, gamification engagement, increased job performance and decreased intention to leave the company and organization. Overall, current study confirmed that platform mobile work company could carry out internal marketing strategy by design a gamification support system, add gamification elements to support and incentive mobile service providers. The gamification internal transmission aims to improve employee's performance and reduce turnover intention.



## **Key Contributions**

Current research is the first study to reveal how gamification design influence internal marketing strategy implementation and how gamification design influence mobile service providers behavior outcomes under platform economy. Previous studies only focused on gamification under traditional work contexts rather than gig work contexts. Our research contributes to in-game level outcomes (Wunderlich et al. 2020), finding that the gamification elements from both social incentives and monetary incentives have influence on service provider's attitude toward gamification. Meanwhile, current research uncovers the gamification internal transmission mechanism based on intra-organizational level outcomes dimension. Gamification knowledge as a significant mediating variable, which expanding previous research of gamification on subjective knowledge (Flynn and Goldsmith 1999). Besides, we constructed a new variable, gamification engagement, to replace work involvement and engagement (Cotton 1993) under platform context. Additionally, this study further broadens the application scenarios of internal marketing theory (Berry 1981) and gamification theory under platform economy and gig work background. Particularly, we move forward to develop additional theoretical linkages with the TAM model (Davis 1989) and motivation theories (Vallerand 1997) to further explore the jointly influence on service providers' gamification attitude.

References are available upon request.

## **RETHINKING DIRECT SELLING**

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Keywords: direct selling, review, sales management

Description: This paper explores how direct selling has changed, reviews previous conceptualizations, and proposes an updated definition for direct selling.

## **EXTENDED ABSTRACT**

### **Research Question**

An inaccurate definition can lead to confusion, cause problems, and stall advances in direct selling. Therefore, an updated and consistent conceptualization of direct selling is needed for researchers, policy makers, and managers.

### **Summary of Findings**

There have been many changes in direct selling recently due to technology and the growth in the gig economy. Furthermore, researchers have treated the individuals involved in direct selling as either consumers or salespeople leading to varying insights. Considering the recent changes and conflicting conceptualizations, we have updated the definition of direct selling by Peterson and Wotruba (1996). We redefine direct selling as *consumers selling to other consumers by direct communication working as independent contractors*.

### **Key Contributions**

By redefining direct selling, we hope to add clarity to this research context and inspire programmatic research. Researchers should turn to literature on the gig economy and influencer marketing to gain more insight into direct selling. We suggest that researchers and managers should treat the individuals involved in direct selling as both consumers and salespeople.

However, these individuals are not employees, thus researchers and managers should not treat them as such. We urge researchers and policy makers to look beyond Multilevel Marketing and to consider other issues in direct selling as it is a unique channel with unexplored phenomena.

References available upon request.

**ROLE CONFLICT, JOB SATISFACTION, AND PERFORMANCE: ASSESSING THE  
CONTINGENT ROLE OF SALESPERSON SELFMONITORING AND TRUST IN  
MANAGER**

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**Keywords:** Role conflict; job satisfaction; self-monitoring; salesperson’s trust in manager; creative performance; service performance

**Description:** The research examines the effect of role conflict on creative performance and service performance and assesses the moderating effect of self-monitoring and salesperson’s trust in manager.

**EXTENDED ABSTRACT**

**Research Question**

Changing business exchange landscape requires salespeople to offer creative solution and superior service performance. In pursuit of these outcome, the role of role conflict in driving sales outcomes cannot be ignored. Hence, our study seeks to fill gaps in the sales literature by examining direct and indirect consequences of role-conflict for salespeople. Further, we examine

the influence of salesperson's self-monitoring and trust in manager on the relationship between role-conflict and job satisfaction.

### **Method and Data**

The sample is composed of 122 salespeople and their respective managers from a leading private sector financial service provide. All measures used in this study were adopted from prior literature. The data collected was analyzed using partial least squares structural equation modeling.

### **Summary of Findings**

Findings empirically show that role-conflict reduces salesperson's job satisfaction which then impacts creative performance and service performance. Further, our results also show that salesperson self-monitoring and salesperson trust in manager buffers the negative effect of role-conflict. As such, high self-monitors are better able to handle conflicting demands because these salespeople can internalize the emotions arising in the exchange process which helps them handle incompatible job situations. Also, salesperson's trust in manager provides motivation to the salesforce to remain committed to the task in accordance with expected roles and responsibilities.

### **Key Contributions**

Our research examines the negative effects of role-conflict on work related outcomes such as job satisfaction and how it ultimately transcends to salesperson's creative and service performance. Our study fills the crucial gap by exploring different resources that can help salesperson reduce the negative effects of role-conflict. We also uncovered the process through which role-conflict affects service performance. Overall, our findings add to prior research on

job-demand resource theory by including both personal (self-monitoring) and job resources (salesperson's trust in manager) in determining job demands-work outcomes relationship.

This study also provides several managerial implications. Our research highlights the role of job satisfaction in the service context as it is found to drive stronger creative performance and service performance. Organizations should provide negotiation, conflict resolution, and communication training for their employees who will be better to communicate with their managers. Also, self-monitoring can be used to help salespeople manage working on conflicting requests. Appropriate training and recruitment efforts should include assessment of salesperson's self-monitoring skills.

## THE HARMFUL EFFECT OF BABYFACE ON SALES PERFORMANCE

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**Keywords:** Sales, personal selling, babyface, AI, big data.

**Description:** We utilize real-world observational data from Zillow.com and an artificial intelligence facial recognition API to empirically test the effect of babyface on sales performance.

## **EXTENDED ABSTRACT**

### **Research Question**

People often make inferences about others based on their physical appearance (Bar, Neta, and Linz 2006). The feature that people focus on the most when making such inferences is a person's face (Ambady and Rosenthal 1993; Stirrat and Perrett 2010). In other words, even though there is a proverbial idiom that says, "don't judge a book by its cover," people often do exactly that. Despite the vast research showing the importance of salespeople's physical appearance (Ahearn et al. 1999; Farmer and Tsakiris 2012), little is known about how babyish facial features (i.e., 'babyface') influence sales performance. Although previous studies have consistently shown that those with babyish facial features are assumed to have childlike traits (e.g., kindness, incompetence) (Gorn et al. 2008; Zebrowitz and Montepare 2008), the effect of this type of stereotyping on sales performance is unknown. Thus, the question of whether having a babyface helps or harms sales performance is central to the intent of this paper.

### **Method and Data**

The current study utilizes an artificial intelligence facial recognition API, Azure, to objectively analyze 1,000 real estate agents' profiles on Zillow.com to examine the effects of salespeople's babyface on real-world sales performance. Specifically, the artificial intelligence facial recognition API provides 27 facial landmarks for each real estate agent's profile picture, and then the current paper calculates the babyface score of each real estate agent using the methodology from previous literature (Berry and McArthur 1985; Borgi et al. 2014; Glocker et al. 2009b; Henderson et al. 2001). The current research is the first to empirically test the associations between salespeople's facial appearance and their performance by using the number of real-world consumer reviews and photos of real salespeople with an artificial intelligence facial recognition API.



### Summary of Findings

The findings demonstrated babyface was negatively related to the total number of online consumer reviews ( $\beta = -.38, t(756) = -4.92, p < .001$ ) even after controlling for attractiveness ( $\beta = .02, t(756) = .61, p = .54$ ). In addition, there was a significant interaction between babyface and gender ( $\beta = .21, t(756) = 2.86, p = .004$ ). For salesmen, babyface was negatively related to the number of online reviews ( $\beta = -.15, t(756) = -2.75, p = .01$ ), whereas for saleswomen, there was no effect of babyface on the number of online reviews ( $\beta = -.08, t(756) = -1.65, p = .1$ ). Also, there was a significant interaction between babyface and sales location ( $\beta = .25, t(756) = 3.38, p = .001$ ). In locations with a low population density, babyface was negatively related to the number of online consumer reviews ( $\beta = -.24, t(756) = -4.61, p < .001$ ), whereas in locations with a high population density, there was no effect of babyface on the number of online reviews ( $\beta = -.06, t(756) = -1.3, p = .2$ ).

### Statement of Key Contributions

The current research makes an important contribution to sales literature by documenting a negative association between babyface and sales performance (Alavi et al. 2018; Peterson 2020; Reingen and Kernan 1993). Whereas previous sales literature has explored the impacts of salespeople's physical appearance on their performance (Verbeke et al. 2011; Vinchur et al. 1998), it has solely focused on the physical dimension of attractiveness (Ahearne et al. 1999; Chaker et al. 2019; Fergurson 2017; Reingen and Kernan 1993; Sharma and Lo 2016). Thus, our research explores a physical dimension that is yet to be addressed in the sales literature. This study is the first attempt to investigate the babyface overgeneralization effect in sales performance. Consistent with the chronic effects of babyface in various contexts (Gorn et al. 2008; Zheng et al. 2016), the current research shows that the effects of babyface are also pervasive in the sales context. In particular, the current research explores how salespeople's babyface generally harms their performance by utilizing real-world data.

**THE HUMAN SIDE OF SELLING DIGITAL INNOVATIONS:  
UNDERSTANDING THE ROLE OF SALESPEOPLE'S FEAR OF LOSING FACE**

**Abstract**

In the age of digital transformation, many industrial manufacturers are aiming to bring digital innovations to market. However, these manufacturers' salespeople frequently fail to sell digital innovations successfully. This article is the first to empirically examine why this is the case. Drawing on the theories-in-use approach (TIU), the authors conducted 59 in-depth interviews with global salespeople, managers, and customers. They then developed a theoretical model through extensive iteration and co-creation with the interviewees. Findings reveal that the key reason why established salespeople fail at selling digital innovations is their fear of losing face during customer interactions. This fear of losing face results from salespeople's gaps in understanding their customers' digital needs and purchasing organizations, gaps in understanding the digital technologies embedded in innovations, and their perceived quality gap of digital innovations compared to traditional products. The results indicate customer-, organizational- and salesperson-related factors that moderate the effects between drivers, key construct, and outcomes. The study thus provides unprecedented insight into the human side of industrial manufacturers' sales challenges in the age of digital transformation.

*Keywords:* Digital innovation, innovation selling, theories-in-use, theory development

### **Key Contributions to Academe and Practitioners**

Our results are important for both academic research and managerial practice. For academic research, our study is the first to shed light on the human side of selling digital innovations. Specifically, our study introduces the novel concept of *fear of losing face* to the literature, which provides a well-grounded theoretical explanation of why salespeople fail in selling digital innovations. Thereby, our study also contributes to the literature by integrating the two research streams of innovation selling and digital innovations, which opens a plethora of avenues for future research. We also present important insights for digital innovation research by shedding light on the go-to-market of new digital products, and, thus, the ultimate indicator of a digital innovation's success. Finally, we contribute to academia by applying the TIU approach for theory development in the marketing discipline (Zeithaml et al. 2020).

For managerial practice, our results provide concrete guidance on how industrial manufacturers can either (a) reduce salespeople's fear of losing face, or (b) improve salespeople's selling success despite their fear of losing face in front of the customer. First, in order to reduce salespeople's fear of losing face, industrial manufacturers should create an environment of psychological safety within the company by making relevant information readily available, providing support, and ensuring open and transparent communication from the top. In addition, manufacturers should provide appropriate sales training opportunities and internal quality management. Second, in order to motivate salespeople to sell digital innovations *despite* the fear of losing face, manufacturers need to better convey the strategic importance of digital innovations to salespeople. Finally, manufacturers need to adapt their incentive systems to foster digital innovations in industrial markets.

### Paper

With increasing competition in commoditized global markets, industrial manufacturers need to commercialize new market offerings to sustain their competitive advantage (e.g., Bennett and Lemoine 2014; Plötner 2012; Gartner 2015). To defend their hardware business and create new business opportunities, a growing number of firms are adding *digital innovations* to their portfolios, that is, they are incorporating digital capabilities into physical products (e.g., Yoo et al. 2012, Allmendinger and Lombreglia 2005; Kohtamäki et al. 2019; Liozu and Ulaga 2018; Valencia et al. 2015). To illustrate, Hilti, a multinational tool manufacturer, offers *OnTrack!*, an asset management software system for the construction industry. The system provides an overview of existing equipment and sends alerts when tools need maintenance or calibration (Hilti 2015).

However, industrial manufacturers are often not satisfied with the market success of their digital innovations (e.g., Schulz 2019; Atluri, Rao, and Wong, 2018; Kane et al. 2015). Thereby, one key challenge is that many salespeople who are employed by industrial manufacturers and who excel at selling hardware products frequently fail at selling digital innovations (e.g., Ploetner 2016; Schmitz et al. 2020). As one manager whom we interviewed recently told us: „Our sales reps really struggle” and another one added: “Many salespeople tell me: ‘Leave me alone with this stuff’”.

We are intrigued by salespeople’s challenges with selling digital innovations, because salespeople have always been required to adopt *traditional* innovations and sell these to customers—so what is different when it comes to *digital* innovations? Against this backdrop, the goal of this study is to understand *why* salespeople lack success in selling digital innovation and how managers can alleviate these issues. To this end, we employ a theories-in-use (TIU)

approach to surface underlying concepts of this phenomenon and broaden the perspectives (e.g., Parasuraman, Zeithaml, and Berry 1985; Zeithaml 1988; Kohli and Jaworski 1990; Zeithaml et al. 2020). Building on 59 in-depth interviews with salespeople, managers, and customers from two global manufacturing companies, we develop a theoretical model through extensive iteration and co-creation with the participants that sheds light on key issues in digital innovation selling.

Our findings suggest that salespeople's struggle to sell digital innovations can be traced back to one key reason: Salespeople are often afraid to *lose face* when selling digital innovations. Experienced salespeople who have been successfully selling hardware products for years are especially likely to harbor a fear of embarrassing themselves in front of customers when selling digital innovations, because they lack product understanding and customer understanding, and/or perceive digital innovations to be of low quality compared to physical products. These effects are moderated by customer-related factors (e.g., customer relationship quality), organization-related factors (e.g., availability of information on demand), salesperson-related factors (e.g., perceived strategic importance of digital innovations), and organization-related factors (e.g., monetary rewards).

### **Literature Overview**

Our study is positioned at the intersection of two literature fields: *innovation selling* and *digital innovations*. In the following, we briefly summarize both literature fields and carve out the research void that our study addresses.

Research into *innovation selling* offers valuable insights for companies on how to sell innovations. Studies on innovation selling have focused on (1) approaches of sales force steering (e.g. Hohenberg and Homburg 2016; Ahearne et al. 2010), (2) sales force motivation and skills (e.g. Fu et al. 2010; Van der Borgh and Schepers 2018), and (3) innovation adoption by the sales

force (e.g., Hultink and Atuahene-Gima 2000). First, in terms of sales force steering researchers examined management instruments that affect salespeople's innovativeness (Chen, Peng, and Hung 2015a) as well as the sales performance of innovations (Homburg, Hohenberg, and Hahn 2018). For example, studies show that outcome-based control systems are more effective than behavior-based control systems to increase innovation sales performance (Ahearne et al. 2010). Second, studies examined the role of sales force motivation and found that salespeople's effort and intention to sell innovation are crucial success factors (e.g., Fu et al. 2010; Van der Borgh and Schepers 2018). For example, Fu, Richards, and Jones (2009) found that goal setting and self-efficacy strongly affect salespeople's efforts to sell innovation. Third, studies analyzed salespeople's innovation adoption showing that salespeople's commitment to innovation is determined by their learning style, problem-solving style, and performance orientation (Atuahene-Gima 1997).

To our best knowledge, none of these studies have examined the selling of *digital* innovations. As digital innovations are radically different from other kinds of innovation (e.g., Nambisan et al. 2017; Makkonen and Komulainen 2018; Nambisan et al. 2017; Lokuge et al. 2019), it is questionable whether extant studies generalize to the selling of digital innovations. This notion is reflected in an emerging research stream on digital innovations. For example, researchers found significant differences in the organizational structures needed for digital innovations, in terms of resources, staffing, remuneration, and/or culture (e.g., Lokuge et al. 2019; Tumbas, Berente, and vom Brocke 2018). Other studies examined the nature of digital innovation processes, demonstrating the importance of collaboration, governance, and customer knowledge incorporation (e.g., Svahn, Mathiassen, and Lindgren 2017; Abrell et al. 2015).

However, to our best knowledge studies in this research stream have never examined challenges in *selling* digital innovations. In other words, while literature on *innovation selling* has neglected to examine the selling of *digital* innovations, literature on *digital innovations* has neglected to examine the *selling* of digital innovations. As a result, the two existing research streams of innovation selling and digital innovations are largely disconnected. Academia therefore offers no dedicated answers to the question of why problems in digital innovation selling arise and how to overcome them. Our study is designed to provide first insights into this research void.

## **Methodology**

### ***The Theories-in-Use Approach***

To answer the broad research question of why salespeople are lacking success in selling digital innovation, we decided to apply an extensive qualitative research approach. For this purpose, the newfound theories-in-use approach appears as most promising as it is “especially well suited to identifying and defining important constructs that reflect the practical world of marketing, including antecedents and consequences of marketing phenomena” (Zeithaml et al. 2020, p. 35). As demonstrated by Zeithaml et al. (2020), the marketing discipline often borrows theoretical concepts from other field, lacking the development of theory that is home-grown in the discipline of marketing. We therefore consider the TIU approach as highly valuable in broadening perspectives and guiding future empirical efforts on digital innovation selling.

Within the TIU approach participants are active partners in a co-creational theory development process, allowing researchers to work closely with participants to tap into implicit and explicit causal thinking that can be extracted to develop theoretical propositions (Zeithaml et al. 2020). The aim is to learn about the mental models of participants regarding how things are

working in a specific context or situation (Argyris and Schon 1974; Zeithaml et al. 2020). For this reason, the TIU approach has two main process steps that are executed in an iterative manner. First, by qualitative data analysis key constructs are carved out and cross-checked with participants. Second, these constructs are put in relation to each other to form propositions and arguments about the direct and indirect effects on each other. This procedure leads to a full conceptual model that is presented to the participants in a feedback loop to derive the final model and the resulting theory.

### ***Our Research Context***

For this paper, we collaborated with two globally operating manufacturers that face the challenge of bringing digital innovation to market. Both companies have developed digital innovations to complement their traditional hardware-based offerings. Bringing those offerings to market has proven to be challenging but is perceived to be crucial for the companies' future market success. By acquiring two companies with similar challenges, we aim a high generalizability of our findings.

Company A is a globally operating machine tools manufacturer with more than 70 subsidiaries and high expertise in high-technology markets. It is generating revenues of around € 4 billion annually. Their offerings range from machine tools and associated repair and maintenance services to digital innovations, such as machine programming and enterprise software, Industry 4.0 consulting services, and automation solutions. The company and its more than 10,000 employees worldwide serve industrial customers in various industry segments, such as vehicle manufacturing, machinery and plant construction, electronics, the manufacturing of medical technology equipment as well as steel and metal trades.



Company B is a globally operating manufacturer for multidimensional measuring machines. It is represented in more than 100 sales and service centers with manufacturing sites in four countries. Its offerings include a broad portfolio ranging from bridges, horizontal arm, and inline measure machines as well as shape, contour, and surface measuring machines. The offering is complemented by customer service, contract measurements, part inspection using computed tomography and online services to ensure optimal machine uptime as well as digital innovations, such as optical sensors and measurement software. More than 2,400 employees worldwide serve the company's industrial customers in various industry segments, predominantly from the automotive industry and its suppliers.

### ***Procedure***

*Data collection.* For our purpose of theory development, we conducted interviews with 59 practitioners representing a broad range of experience in management and sales. Of the 59 participants 31 held management positions, 10 were salespeople, 9 digital innovation specialists, and 10 were customers. The majority of our participants were active in the markets of Europe, Middle East, and North America. To collect data, we developed a conversation guide consisting of different theme areas with open questions. All interviews were conducted by at least two researchers to tap into all relevant aspects of participant's knowledge regarding interesting research issues. All interviews were fully recorded and transcribed to achieve a sound base for initial data analysis.

*Construct development.* In line with Zeithaml et al. (2020), we identified distinct elements in the raw data to derive tentative definitions of a core construct that explains why salespeople fail at selling digital innovations. These elements were then grouped into a higher-order category and labeled by various codes (open coding). After a cross-checking with current

literature, we discussed our first results with selected interviewees and thereby derived the first set of constructs.

*Propositions and arguments.* We then went back to the data of the interviews to identify the main constructs' antecedents, consequences, mediators, and moderators. As a next step, these findings were verified by targeted questioning regarding our identified constructs. Afterwards, the constructs were linked to each other to develop tentative theoretical propositions and arguments derived from the interviewees' mental models (axial coding). This led to the development of a set of if-then propositions, that were grouped into broader categories to depict common high-level arguments across propositions (selective coding).

*Validation.* In a final step, we conducted foundational tests with the interviewees to evaluate the propositions' plausibility and alignment with the definitions and arguments. We also checked if our derived propositions are interesting enough, deliver a substantial informational value-add, and have common themes (Zeithaml et al. 2020).

## Results

Figure 1 presents our final theoretical model. Our discussion is structured as follows: We first present our key construct, then the respective outcomes, the drives for the key construct, and lastly the moderating factors for the effects between drivers, key construct, and outcomes. Representative quotes are given in Table 1. We begin with the key construct *fear of losing face* that is centered in our research model.

----- Insert Figure 1 and Table 1 about here -----

### ***Fear of losing face***

Many interviewees pointed out that salespeople fail in selling digital innovations because they are afraid to lose face in front of their customers. More specifically, salespeople exhibit a

deeply rooted aversion to appear incompetent or useless in customer encounters and thereby embarrass themselves. Salespeople thus avoid topics in which they do not feel secure—and digital innovations are one of these topics. To illustrate, a sales manager stated:

“[A salesperson] always tries to look good in front of the customer and he will avoid everything that might make him look bad.”

In this regard a managing director of a sales subsidiary added:

“I think the sellers in general... They’re all prima donnas... They never want to stand in front of the customer and look stupid and say: I have no idea. So that’s indispensable for them to really save face with the customer...”

He further explained:

“It is just not an ideal situation, if you try to make somebody do something he struggles with, is uncomfortable and does not want to be in, because he is afraid of losing his face in front of the customer. This is just not good.”

In a vivid manner another sales manager highlighted how strong the aversion of salesperson is to lose their face when it comes to selling digital innovations:

“He would lose his face, and this is what every salesperson hates. They hate it like poison and managers need to support their salespeople to make sure that this never happens”

Since this concept of fear of losing face plays such a dominant role for salespeople and the question why digital innovation selling is often unsuccessful, we place it in the center of our theory development as the main explaining factor.

### ***Drivers***

Why do salespeople fear to lose their face when it comes to digital innovations? The initial data and further conversations with our participant revealed several antecedents. First, salespeople lack *understanding of the customer* regarding digital innovations compared to non-digital products. In this regard, one important gap is the difference in customers’ buying center and buying process of digital innovations. As one manager stated:

“Yes, on the customer side people change and a different language is spoken, there is a different culture and [the salesperson] does not understand the language and culture.”

Second, interviews revealed gaps in salespeople’s *understanding of digital innovations*.

For example, the lack of understanding digital innovations can put the salesperson in an unpleasant situation with the customer:

“With the broader portfolio, they’ve had to learn more technical information and so on. Otherwise, they go to the customer, they have no answers, and the customer says, ‘I don’t need you.’”

Third, salespeople perceive digital innovations to have lower quality than established products. This is summarized by a sales manager as follows:

“The salesperson knows, if the machine is put in place it works fine. If I sell it like this, it will be delivered like this and the salesperson feels secure. But with the [digital innovations] he does not feel secure [that it works]”

These prevalent gaps lead to a stronger fear of losing face. Put differently, smaller gaps between digital innovations and non-digital products in terms of understanding customer needs or perceiving the quality of digital innovations can lead to a reduced fear of losing face. As mentioned above, we provide further representative quotes in Table 1.

### ***Outcomes***

Our interviews uncovered various outcomes evoked by salespeople’s fear of losing face. Besides salespeople’s *wellbeing*, the fear of losing face especially harms their *digital innovation selling behaviors*, in particular their informing, consulting, and selling efforts. Specifically, managers pointed out that salespeople are afraid that digital innovations could reflect negatively on them, e.g., due to lack of performance. This notion then can lead to salespeople actively avoiding the topic of digital innovations in their customer interactions:

“This is still an issue that spreads over to [...] our [digital] machine enhancements and apps, and here we see that salespeople are still reluctant to talk about software products”

Moreover, salespeople do not feel confident selling digital innovations:

“[...] our salespeople are insecure; do I sell the right thing to my customer?”

Thus, we conclude that fear of losing face is a strong determination factor for salespeople’s digital innovation selling success. Because of the page restriction, we provide further representative quotes in Table 1.

### *Moderators*

Finally, we examined possible moderating factors of the effects leading to fear of losing face and the effects that are induced by this fear. Besides other factors, customers realistic expectations of digital innovations diminish the likelihood that our antecedents result in a fear of losing face. Conversely, if the customer expects too much, salespeople’s fear of losing face more likely arises from these antecedents:

“The customers take the [digital innovation] and think everything is “out of the box” ready and that is just not the case. A lot of process knowledge needs to be put in, own brainpower, how to realize the processes in the company”

Regarding the effect of fear of losing face on outcomes, we found that incentivization serves as a moderator. Especially monetary rewards play an important role, given that most business is still generated through non-digital hardware products.

“Well, salespeople are really...how should I put it? Really incentive-oriented and hardware is currently still 95% of the [...] whole business”

Thus, a balanced incentivization is a key to make salespeople sell digital innovations despite their fear of losing face. Again, further quotes are also provided in Table 1.

### **Discussion**

By the means of the TIU approach, we developed a theoretical model explaining a key barrier for selling digital innovations. Based on a co-creational collaboration with our participants, we show an important reason for why industrial manufactures' salespeople struggle to bring digital innovations to market: salespeople are often afraid to lose their face in front of customers.

Our findings contribute to the marketing discipline by introducing the novel concept of fear of losing face, providing a theoretical explanation for the highly relevant topic of digital innovations selling. Moreover, we demonstrate the effectiveness of TIU to develop theoretical concepts in the field of marketing (Zeithaml et al. 2020). Lastly, we provide important insights and levers for managerial practice on how industrial manufacturers can bring their digital innovations successfully to market. Specifically, to reduce fear of losing face, manufacturers should promote an environment of psychological safety through information readily available, providing support, and ensuring open and transparent communication from the top. Moreover, appropriate sales training can reduce the negative effect of the fear of losing face, leading salespeople to successfully bring digital innovations to the market despite their fear of losing face.

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**Table 1**  
Representative quotes per construct

Category	Role	Construct	Quote
Fear of losing face	Key construct		<i>"He would lose his face, and this is what every salesperson hates. They hate it like poison and managers need to support their salespeople to make sure that this never happens"</i>
Gaps in understanding customers	Antecedent	• Digital innovation-related needs	<i>"Historically seen our salespeople are machine sellers and [...] do not have [...] the focus on the value chain process of our customers."</i>
		• Buying center and buying process for digital innovations	<i>"Yes, on the customer side people change and a different language is spoken, there is a different culture and [the salesperson] does not understand the language and culture."</i>
		• Implementation of digital innovations	<i>"There are certain conditions that have to be met...So you have to know a bit about the law to understand what exactly is required ... when cloud is a possibility and when it is not, ... about data protection regulations, where the data is and stays, etc."</i>
Gaps in understanding and perceiving digital innovations	Antecedent	• Digital technology	<i>"With the broader portfolio, they've had to learn more technical information and so on. Otherwise, they go to the customer, they have no answers, and the customer says, "I don't need you."</i>
		• Value creation potential	<i>"There is still reluctance to sell this new software. It is perceived as being too complex and not high-performance enough."</i>
		• Perceived quality	<i>"The salesperson knows, if the machine is put in place it works fine. If I sell it like this, it will be delivered like this and the salesperson feels secure. But with this [digital innovations] he does not feel secure [that it works]"</i>
Digital innovation selling behaviors	Outcome	• Informing	<i>"This is still an issue that spreads over to [...] our [digital] machine enhancements and apps, and here we see that salespeople are still reluctant to talk about software products"</i>
		• Consulting	<i>"I'm sure that leads are going uncovered because our sales staff is not equipped to have that conversation."</i>
		• Selling	<i>"This means our salespeople became insecure, do I sell the right thing to my customer?"</i>
Wellbeing influenced by digital innovations	Outcome	• Perceived stress	<i>"[...] however, I am afraid that we don't have the right skills for it [selling digital innovations] also not with the specialists so far. This is the fear I have."</i>

Category	Role	Construct	Quote
		• Job satisfaction	<i>"The motivation of people is -- I finished a combination of several factor. One is the career strategy for the business, this is clear. Knowing the market, this is the second one, and the proactivity of the people. All these things we make a long time ago in test always. And for this reason, we always say they open mind."</i>
Customer-related remedies	Moderator	• Digital value creation potential	<i>"Here in [country] we tend to offer a relatively complex software product with a lot of features and options and those are to a certain extend tailored especially for the top tier of our customer areas, our customer segments"</i>
		• Eye-level digital expertise	<i>"To master such a complex software product the customer needs very good team and well-trained personnel"</i>
		• Realistic digital expectations	<i>"The customers take the [digital innovation]and think everything is "out of the box" ready and that is just not the case. A lot of process knowledge needs to be put in, own brainpower, how to realize the processes in the company"</i>
Organization-related remedies	Moderator	• Availability of information	<i>"But as far as overall like product roadmap, like where are we going with the product, we are not invited really to participate in that much. And we're not even really presented with anything until it's a final solution."; "we need to have more communications, meeting together, sharing information."</i>
		• Availability of support	<i>"For others it is really something that broadens their horizon, and here I have to say, you really need effective structures, meaning people who are able to support [...] and have the right technical expertise"</i>
		• Communication and error culture	<i>"If we fail with our salespeople, and we have failed very often, then the message doesn't reach customers."</i>
Salesperson-related remedies	Moderator	• Perceived strategic importance of digital innovations	<i>"But again, I think, if it was of greater importance, there would be more resources dedicated to it."</i>
		• Digital self-concept	<i>"They consider themselves as machine salespeople. An most of those people, that have years of technical [hardware] experience, are really good in explaining how machines work. But they are not good, because the software topic just became relevant in the last 10-15 years"</i>
Organization-related remedies	Moderator	• Monetary rewards	<i>"Well, salespeople are really...how should I put it? Really incentive-oriented and hardware is currently still 95% of the [...] the whole business"</i>
		• Non-monetary rewards	<i>"Compared to hardware selling, software selling is low portion for [...] our sales. And so to be honest, our regional sales don't have much interested in selling the digital offering to the customer compared to hardware selling. So sometimes, I conduct some promotion events for the -- our sales reps in order to motivate them to sell the digital solution."</i>

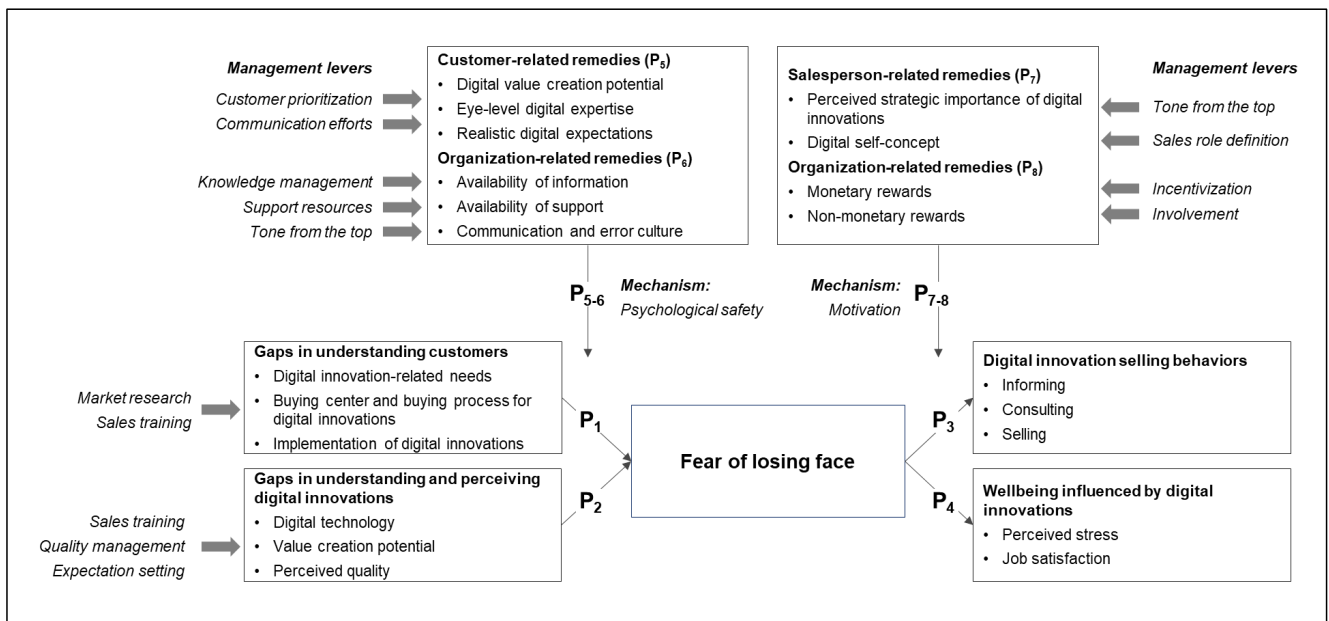


Fig. 1. Research model.

# **Advertising, Promotion and Marketing Communications**

## **ALEXA, SHOULD I TRUST YOU? EXPLORING THE ROLE OF TRUST IN BRANDED MESSAGES VIA IN-HOME AI DEVICES**

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**Keywords:** artificial intelligence, in-home devices, branding, trust, public policy

**Description:** Two studies explored consumers' perceptions about in-home AI devices.

### **EXTENDED ABSTRACT**

#### **Research Question**

This exploratory research seeks to better understand how owners and non-owners feel about in-home AI devices and what enablers, like trust, may be preventing some consumers from adopting these devices and their services.

#### **Method and Data**

Two studies (one qualitative and one experimental) examined how owners and non-owners of in-home AI devices feel about these devices and content from them. Study 1 data was collected from students and M-Turk with 114 respondents, and Study 2 was collected from 201 M-Turk panelists.

#### **Summary of Findings**

The qualitative exploratory results from Study 1 found that trust was a key component, when considering ownership of in-home AI devices. Trust was further tested in Study 2. The results

of Study 2 found to reduce the barrier to adoption through enhanced trust, using unbranded and branded instructions related to general product usage as mechanisms.

**Statement of Key Contributions**

This exploratory research has identified opportunities to investigate how marketing impacts via in-home AI devices. It examined the role of trust in the in-home AI device messages, which has been under-explored in the marketing literature.

References are available upon request.

**BRAND OR BLEMISH? –**

**HOW ANTHROPOMORPHIZATION AND TAILORED COMMUNICATION  
ENHANCE CONSUMERS' LIKING OF VISUALLY IMPERFECT PRODUCE**

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**Keywords:** food waste, anthropomorphization, point-of-sale communication, message content, product liking

**Description:** This paper investigates how point-of-sale communication should be designed to increase consumers' liking and choice of visually imperfect produce.

**EXTENDED ABSTRACT**

**Research Question**

1.3 billion tons of food get lost and wasted every year. While the reasons are manifold, in industrialized countries waste mainly results from picky consumer behavior with respect to products' visual perfection. This holds especially for fruit and vegetables, which, in most cases, are 'too good to go' as there is no impairment of quality or safety. However, trade norms have accustomed consumers to visually flawless products, so they do not consider buying flawed ones. While past research has shown that price discounts or consumer education ('pesticide free' labels) are successful means to increase sales of imperfect produce, it lacks insights into how consumers may be incentivized to purchase *without* compensations. This, in turn, might increase perceived product quality and retailers' margins. Recent research has identified anthropomorphization, i.e.

the attribution of humanlike properties, characteristics, or emotions to nonhuman agents, and in-store communication (product positioned as authentic or sustainable) as potential approaches to reach the abovementioned goal. Building on that, this paper aims to shed light on the question how humanization can foster consumers' liking of flawed products, what tailored communication should look like, and how the combination of anthropomorphization and communication can be leveraged to increase advertising effectiveness.

### **Method and Data**

Four online experiments were conducted to test the hypotheses. In all experiments, participants recruited from convenience samples were randomly assigned to the conditions. To examine the effect of anthropomorphization on product liking, participants were asked to rate both perfect and imperfect produce being presented side by side in a typical supermarket shelf scenario. In study 1, we employed a one-factorial (imperfect produce: humanized/non-humanized) between-subjects design ( $N = 82$ ,  $M_{\text{age}} = 28.4$ , 75% female) and used T-tests for the subsequent analysis. The same approach was used for study 2 on the effectiveness of verbal and nonverbal communication ( $2 \times 1$ ; imperfect humanized produce: verbal/nonverbal communication;  $N = 97$ ,  $M_{\text{age}} = 27.5$ , 62% female). Maintaining the cover story, in study 3 a parallel mediation model (PROCESS model 4) with 5,000 bootstrapping resamples was employed to test for mediation effects. Herein, we again used a one-factor (imperfect humanized produce: happy/sad facial expression) between-subjects design ( $N = 75$ ,  $M_{\text{age}} = 32.0$ , 77% female). Lastly, to investigate the interplay of anthropomorphization and message content, study 4 used a  $2$  (humanization: yes/no)  $\times$   $2$  (message content: brand/blemish) between-subjects design ( $N = 123$ ,  $M_{\text{age}} = 28.6$ , 55% female), which was evaluated using a two-way ANOVA.

### **Summary of Findings**

In this paper, we investigated how anthropomorphization (or humanization) and executional style



of point-of-sale communication influence consumers' liking (product evaluation, purchase intention, and actual amount taken) of visually imperfect food. Drawing on current research, we hypothesized that consumers' liking of imperfect produce increases when being humanized (vs. non-humanized). Moreover, we argued that humanization's effect can be leveraged using a combination of pictorial and textual communication elements (vs. pictorial only), and that the message contents conveyed by an imperfect humanized product should position flaws as a brand (vs. blemish). Finally, we proposed that compassion and sympathy for the imperfect product are mediators of humanization's effect. We found partial support for our hypotheses. While some of our findings were contradictory, we showed that imperfect produce is liked more when anthropomorphized, better promoted using both verbal and non-verbal information and that such information should position the product as something special ('brand') instead of flawed ('blemish'). Notably, in most studies, purchase intention and product evaluation, but not the amount of imperfect produce taken was influenced by humanization and tailored communication. Consumers tend to evaluate humanized imperfect products better and have a higher purchase intention, but this is not reflected in their (hypothetical) 'buying behavior'.

### **Key Contributions**

Our findings are relevant to both theory and practice. From a theoretical perspective, we contribute to the understanding of anthropomorphization's effectiveness in point-of-sale communication by combining current, independent findings. Moreover, we demonstrate that humanization in the context of food waste is an effective means to circumvent consumers' beliefs about 'beautiful is good' by activating specific human schemata. From a managerial perspective, our findings may be used as a guideline on incorporating anthropomorphization in communication measures. Specifically, we show that the combination of pictures and text works better than pictures alone, and that both happiness and sadness, evoking compassion and sympathy in consumers' minds, may be used as emotional triggers when the product's human schema is ambiguous. Moreover, we

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demonstrate that when verbalized communication is used, it is best to let the product state the positive (vs. negative) side of its flaw. This way, we outline the business case for imperfect produce. Consequently, our findings are of high relevance not only to academy and food retailers, who may reduce their waste and improve their brand images, but also to non-profit organizations and policy makers who aim to educate consumers to reduce food waste in the strive for a more sustainable development.

References are available upon request.

## **DESTINATION-BASED ADVERTISING: ALTERING PLANNED BEHAVIORS**

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**Keywords:** Destination-Based Advertising, Construal Level Theory, Planned Behavior, Sharing Economy

**Description:** Ridesharing apps, i.e. Uber, can alter your destination.

### **EXTENDED ABSTRACT**

#### **Research Question**

First, the literature is scarce of conceptual and experimental support for outcomes of attitudes toward LBA. To provide managers with insights about the benefits of a successful LBA campaign, our first objective is to explore the consequences of attitudes toward LBA and to investigate their effects on the decision-making process.

Second, previous research has not investigated LBA as destination-based advertising (DBA) method (Xue *et al.* 2013). Nowadays, some apps, like ridesharing, not only have access to the user’s current location but they get the user destination and provide routes. This brings a privilege of continuous access to users’ locations, the start point, the routes, and the endpoint. However, the role of destination congruity of the planned destination and the targeted ad is unknown. For instance, could a rideshare app advertise to its user, who is going to a city mall, another place near (vs. far from)?

Third, research shows users’ levels of interaction and attitudes are different based on the congruency of either the product or communication medium (Cleveland *et al.*, 2016; Song *et al.*, 2018). Building on the literature on the effects of culture, this research is also concerned with the

role of cultural congruency in the North American market.

### **Method And Data**

Our study examines the effects of *stimuli* (attitudes toward DBA and perceived behavioral control) on the *response* (coupon redemption) via the *organism* (purchase intention and app reuse intention). The experimental design was a 2 (cultural congruity: Canadian vs. international) × 2 (destination congruity: high = 50 m vs. low = 3000 m) between-participants design. 282 undergraduate students (53% female) from a North American university came to the research lab, browsed the developed apps on mobile devices, and filled a questionnaire. We created two experimental mock apps that mimic a ridesharing app in Canada. Both apps were navigable on the cellphones with four pages in each condition (home, welcome, contact us, and destination-based ads). The questionnaire instructed them to consider they have taken rideshare using the RideShare4You app on their mobile device to go to the City mall. It asked them to imagine they would like to purchase clothes and/or to eat lunch or have a drink. While they are on the rideshare to the City mall, they receive a welcome note on their app providing them offers based on their destination, which is the City mall. It finally asked them to completely browse the app.

### **Summary of Findings**

Using SEM, we find support for the effects of DBA and perceived behavioral control on app reuse intention, purchase intention, and coupon redemption. Moreover, the results support the moderating role of destination congruency and cultural congruity on the relationship between attitudes towards DBA and users' intention to redeem coupons and their app reuse intention.

### **Statement of Key Contributions – 200 words**

We studied the consequences of LBA as well as the moderating effects of destination congruity and cultural congruity to alter planned behaviors. The findings have implications for the theory of planned behavior and how planned destinations could be changed accordingly. Particularly, ridesharing apps (i.e. Uber), which have access to big datasets of profiles, locations, and destinations, would be able to partner with advertising companies to publish destination-based ads. Even if the offer is far from the user destination, a culturally congruent design may enhance

the intentions and the decision to change planned behaviors.

Future research could investigate how advertisers can make ads far from destinations more appealing by providing more marketing incentives (i.e. free rerouting). It is also important to study whether these kinds of incentives would make ads far from the planned destination as relevant as the ads near the planned destination. In this way, ridesharing companies not only get benefits from riding fees but also may make money out of DBA even for places thousands of meters away.

**References are available upon request.**

## **DISPLAY AD CLASSIFIER: QUANTIFYING ANNOYING AD PRACTICES AND ITS EFFECT ON WEBSITE POPULARITY**

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**Keywords:** Annoying Ads, Online Advertising, Ad Classifier, Machine Learning

**Description:** This paper proposes an automatic framework for detecting, classifying, and counting third-party display ads on a website based on a Random Forest classifier, which was applied to the top-500 news sites retrieved from Alexa Top Sites to investigate the effect of annoying ads on web traffic.

### **EXTENDED ABSTRACT**

#### **Research Question**

The adblocker controversy emerged due to internet users' rapidly growing reliance on adblockers, so much so that it has become a threat to the web publishers' revenue. This paper aims to provide assuage to the adblocker controversy by addressing the factor that drove users to install adblockers in the first place: the overuse of annoying ads. Our goal is to encourage web

publishers to prioritize user experience when advertising by demonstrating the negative consequences of annoying ads on website performance, from which we try to infer users' behavioral reactions to annoying ads quantitatively. To do so, we propose an automatic machine learning-based framework for detecting, categorizing, and counting annoying ads to examine current annoying ad practices among news sites. In the first phase of this study, we construct a random forest classifier that categorizes display ad formats with an accuracy of 89%, trained on 452 ad-specific HTML codes. We then apply our classifier to Alexa's top-500 news sites to (a) characterize current advertising practices across news sites and (b) identify the effect of annoying ad practices on website performance by investigating the relationship between these practices and website popularity rankings.

### **Method and Data**

We trained the ad classifier using the Random Forest algorithm, optimizing hyperparameters for enhanced performance (accuracy: 0.89; precision: 0.95; recall: 0.95; f1-score: 0.95). The classifier categorizes three types of ads: (a) popup ads, (b) sticky ads, and (c) acceptable ads (i.e., display ads that do not belong in the annoying ad categories). Our dataset consisted of 452 HTML codes (168 popup ads, 135 sticky ads, 149 acceptable ads), each indicating an ad manually scraped from randomly selected sites using Selenium Webdriver on Firefox. The features that best distinguished different types of ads were either (a) HTML keywords that indicate cascading style sheets stylings (e.g., "border," "block," "sticky"), or (b) ad-context (e.g., "cookies," "newsletter").

To quantify advertising practices on the web, we designed a framework for applying the ad classifier when accessing websites. The process first extracts <div> tags (i.e., content division elements) after loading a site remotely with Selenium. From the <div> elements, ad-related tags are filtered by detecting ad networks (i.e., third-party entities serving as brokers between publishers and advertisers), to which we applied the classifier. Obtaining a list of top-500 news sites on June 9, 2020 from Alexa Top Sites, we iterated this process for each website's homepage.

### **Summary of Findings**

Performing the Spearman Rank-Order correlation confirmed a negative relationship between annoying ads and website popularity (*correlation*: 0.111). However, ad clutter (*correlation*: 0.144) showed a stronger negative relationship with website popularity than annoying ad practices.

We further compared advertising practices between the top-100 news sites and news sites ranking under 100. Performing the Welch *t*-test, we discovered that the groups differed in advertising practices that are statistically significant based on the following criteria: (a) ad clutter ( $p = .001$ ); (b) annoying ads ( $p < .001$ ); and (c) popup ads ( $p < 0.001$ ). The two groups did not show a significant difference in sticky ad usage ( $p = 0.925$ ).

Websites ranking under 100 hosted 48.06% more ads than the top-100 sites, suggesting that ad clutter be a significant factor in determining user motivation to continue visiting a website. Moreover, investigating the usage of annoying ads by category, we found that sticky ads were



consistently present among news sites, with each site providing 1.15 sticky ads on average.

Contrary to sticky ads, popup ad usage differed drastically, with sites under 100 hosting popups 329.41% more than the top-100. Among the top-100 sites, only five hosted popup ads, implying negative consumer attitudes toward popup ads.

### **Key Contributions**

Previous studies on annoying ads focus on the users' perspective, conducting field experiments to identify consumers' cognitive, emotional, and behavioral responses. This paper contributes to current research by delineating the effect annoying ads have on website performance using quantitative methods. Through our experiment, we (a) demonstrate the relationship between annoying ad practices and user traffic and (b) provide quantitative evidence that reinforce previous findings on the adverse effects of annoying ads on user experiences. Our findings especially appeal to web publishers in that it uncovers the general practices of the most successful sites, providing guidelines for successful advertising.

In this light, another takeaway of this paper is how websites have evolved to employ ad categories that effectively appeal to consumer perception. Our results show that news sites tend to host sticky ads more generally than any other ad format. This pattern implies that specific ad formats are more adept at attracting users based on their web-browsing purposes, which calls for further experiments on different website categories. Moreover, the dramatic cutback in the use of prestitial ads with countdown suggests that ad performance depends significantly on user satisfaction. This further justifies the need for the Better Ad Standards for websites.

References are available upon request.

## **DOES AFFECT-RICH ADVERTISING WORK FOR BEAUTY-RELATED DIETARY SUPPLEMENTS?**

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**Keywords:** dietary supplement, self-presentational motive, affect

**Description:** This paper explores consumers' self-presentational motives for purchasing dietary supplements, and their choices between dietary supplements and cosmetics that satisfy the same need for attractiveness.

### **EXTENDED ABSTRACT**

#### **Research Question**

Increased consumer demand for dietary supplements has received some academic attention in recent years. Researchers have mostly focused on the health benefits of supplements (Weinstein, 1993) and identified them as health remedies intended to facilitate health behaviors (Bolton et al., 2008). However, very little has been studied on the role of self-presentation motives in dietary supplement consumption, a motivation that has been linked to other health behaviors (e.g., Leary 1992). Another product category that directly taps into impression management motives is cosmetics. Interestingly, dietary supplements and cosmetics often appear together in retail outlets, such as pharmacies. Although dietary supplements may also satisfy consumers'

needs for beauty (e.g., Collagen, which is known to improve the looks of skin and hair), very little research has been conducted regarding consumers' choice between these two product categories.

Given that dietary supplements and cosmetics serve similar purposes (i.e., increased attractiveness), should marketers advertise these products in a similar fashion? Affect-rich advertising has been shown to be effective in promoting beauty-related products, especially by incorporating models and celebrity endorsers (Eisend & Langner, 2010). In contrast, recent research suggests that dietary supplements are often classified similarly to OTC drugs (e.g., Bolton et al., 2008), which are considered more as “thinking-products.” Using celebrity endorsers to promote such products was not very effective, especially for high need-for-cognition individuals (Morimoto, 2020). The possibility that cognitive appeals are more favorable to dietary supplements is further supported by the “match-up” hypothesis in advertising, in which the product's qualities should match the characteristic of the advertisement (e.g., affective vs. cognitive) for better evaluations (Kamins, 1990).

These observations lead us to make two main hypotheses: (H1) intention to purchase dietary supplements is partly driven by consumers' self-presentational motives and (H2) unlike cosmetics, dietary supplements respond more favorably to consumers' cognitive assessment (vs. affective) of the product.

## **Method and Data**

In study 1, we recruited 160 US participants from Amazon's MTurk to investigate the positive relationship between consumers' intention to purchase dietary supplements and public self-consciousness, which is a reliable proxy for people's self-presentational motives (Leary,

Jongman-Sereno & Diebels, 2015). Participants saw and read about five types of dietary supplement products, each with a sample picture and description, and then indicated their purchase intention for and familiarity of each product as well as felt trust. Next, participants were measured on a seven-item Public Self-Consciousness Scale (Scheier & Carver, 1985).

We found that purchase intention across all products were significantly positively correlated with public self-consciousness, even for dietary supplements that were relatively less related to beauty (e.g., grapeseed oil).

Next in study 2, we recruited 200 participants from MTurk to test consumers' preference for dietary supplement versus cosmetics, while priming participant's focus on either cognitive or affective judgment processes. Participants were randomly assigned to one of three (cognition vs. affect vs. control) conditions. Participants in the affect, cognition and control group were instructed to review and evaluate the products based on their feelings, logic, or preferences, respectively (see Aydinli, Gu & Pham, 2017). Participants then saw two different products side by side and were asked to indicate their preference between the two. Two binary sets were shown to disguise the actual purpose of the experiment by showing two target products (i.e., dietary supplement vs. cosmetic) and two filler products (e.g., liquid hand soap vs. hand sanitizer). Participants indicated their preference for both products in the set and we calculated the difference between the target products as the dependent variable.

We ran a one-way ANOVA with process manipulation as the main factor. People in the control and cognition conditions preferred the dietary supplement (vs. cosmetic) more than participants in the affect condition ( $p < 0.01$ ). The difference between cognition and control was not statistically significant.

## **Summary of Findings**

We investigated the relationship between public self-consciousness and dietary supplement consumption, with the assumption that people purchase dietary supplements not only for health reasons but also for self-presentational motives.

Study 1 showed that public self-consciousness is positively correlated with the purchase intention for dietary supplement products, even when some of the products did not mention any direct connection to cosmetic benefits. This result suggests that consumers high in public self-consciousness may be more likely to purchase dietary supplements, providing preliminary evidence in support of H1.

Results of study 2 provided evidence that consumers choose dietary supplements over cosmetics when they focus on logic, which was shown to be the default process on average. Interestingly, when affective processing was triggered, consumers significantly preferred cosmetic to dietary supplement. These studies present preliminary evidence that dietary supplements are better advertised through cognitive processes, even though consumers' motivation for purchasing them is similar to that for cosmetics.

Intuitively, affect-rich advertisements are likely to work better when persuading consumers to spend their money on beauty. However, for dietary supplement products with cosmetic benefits, our research suggests that consumers' purchase intention for dietary supplements are reduced when they rely on their feelings and emotions.

## **Key Contributions**

Given the widespread popularity and business implications of dietary supplements, it is important to understand people's motivation for purchasing them. For decades, researchers have

identified risk avoidance as the fundamental motive of health behaviors (Weinstein 1993). This paper provides novel evidence that consumers also purchase dietary supplements out of self-presentational motives, even when some of the products do not mention any direct connection with cosmetic benefits.

To satisfy impression management motives, consumers often purchase cosmetics, which are easier alternatives compared to dietary supplements. Yet, very little research exists regarding choices between cosmetics and supplements. Thus, this paper is one of the first to explore consumers' choice between dietary supplements and cosmetics. Intuitively, affect-rich advertisements are likely to work better in promoting beauty-related products. However, for dietary supplement products with cosmetic benefits, this study shows that purchase intentions for dietary supplements are reduced when consumers rely on their feelings and emotions.

Based on this research, marketers in the dietary supplement industry are reminded that dietary supplement consumers are not only driven by health beliefs but also by their desire for attractiveness. Sales of dietary supplements could benefit from rational appeals in advertising while maintaining the message to be beauty related.

## **FROM SATISFACTION OF CONSUMERS TO SATISFACTION WITH CONSUMERS: REVERSE RATING IN DIGITAL TWO-SIDED MARKETS**

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**Keywords:** Bilateral rating, two-sided market, sharing economy, institutional logics, positioning.

**Description:** The current paper offers insights into what digital two-sided platforms can implement to enhance the effectiveness of reverse ratings, such as adopting a community-like positioning in their marketing campaigns.

### **EXTENDED ABSTRACT**

#### **Research Question**

Consumer satisfaction ratings is a well-established indicator of a provider's degree of success (Fournier and Mick 1999). However, as two-sided markets take a more dominant position in today's economy, consumers are increasingly being rated by providers in order to assess satisfaction with consumers. We term this platform-based rating of consumers as reverse rating (i.e., a practice in which consumers are evaluated by platform providers shortly after a transaction). Recent attempts by some two-sided platforms indicate the important consequences of reverse ratings, such as Uber claiming that it will kick off low-rating riders (Yurieff 2019), and Airbnb allowing hosts to decline reservations made by guests with bad reviews (Airbnb Community 2018).



Despite the relevancy of reverse rating and its pressing consequences, scant research has dealt with investigating reverse ratings in marketing from a behavioral and psychological perspective. My goal of conducting this research is to understand consumer reactions to reverse ratings, which in turn, provides insights into what actions platforms can take to maximize the utility of reverse ratings. Our research questions are: (1) what is the nature of consumers' perceptions of reverse ratings and what kinds of logics do they follow when interpreting this practice? and (2) when it comes to the implementation of reverse ratings, does the type of platform and provider matter.

### **Method and Data**

In the pilot study, I took an exploratory approach to identify consumers' perceptions and understandings of the reverse rating practice as well as their overall sentiment in reverse ratings. A cross sectional survey ( $N = 292$ ) provides initial evidence that consumers' positive attitudes toward reverse ratings are associated with the community logics, whereas consumers' negative perceptions of reverse ratings are associated with the conventional market logics. In Study 1 ( $N = 401$ ), I offer evidence that a platform that adopts community positioning (vs. marketplace positioning) strategies leads to more positive consumer evaluations and a stronger app use intention, and this effect does not occur for platforms that do not employ reverse ratings. Study 2 ( $N = 212$ ) demonstrates that consumers find it more acceptable to be rated by an individual person (i.e., house owner) than a firm (i.e., independent hotel), which supports the H2. Study 3 ( $N = 2078$ ) further corroborates the findings of Study 2 by examining the impact of provider types on the quality and quantity of the reverse rating using actual bilateral Airbnb reviews.

## **Summary of Findings**

The overall results of the current research suggest that the reverse rating practice is more consistent with the community logics (vs. market logics) that present a more egalitarian relationship between consumers and providers. More specifically, the empirical results from the studies suggest that framing the two-sided platforms as a community (vs. marketplace) that highlights the support for the community (vs. accessibility benefits) leads to more positive app evaluations and a stronger app use intention. The findings also demonstrate that a two-sided platform that connects individual peers will benefit more from employing reverse ratings than a platform that connects consumers with firms or business. The benefits are reflected by more positive platform evaluations, more positive attitudes toward reverse ratings, and stronger future app using intentions. Secondary evidence also shows that individual peers (e.g., private homeowners) are more likely to write reviews of the guest and customize the reviews for different guests than business or firms (e.g., renting agencies).

## **Statement of Key Contributions**

From a theoretical perspective, the current work contributes to the burgeoning literature on how consumers interact with new practices (e.g., sharing economy) observed in digital two-sided markets (e.g., Bardhi and Eckhardt 2012; Costello and Reczek 2020; Lamberton and Rose 2012; Zervas, Proserpio, and Byers 2017). This research is among the first in marketing that (1) tackles the issue of reliance on reputation systems (Eckhardt et al. 2019) faced by many digital two-sided platforms and (2) investigates how the demand side (i.e., consumers) responds to reverse ratings, which can suggest important refinements of the research scope of reputation

systems. More importantly, this research highlights the importance of the congruity between the reputation system and institutional logics.

This work also offers practical insights into what digital two-sided platforms can implement to enhance the effectiveness of reverse ratings, such as adopting a community-like positioning in their promotional campaigns. Several contingent issues for the platforms to consider include the extent to which they position themselves as a community or a standard marketplace and the type of providers they select to promote in their marketing campaigns. The current article suggests that after employing reverse ratings, a platform should consider adopting a community-like positioning strategy and featuring individual providers that offer personalized products or services. Another critical issue for the platforms to recognize is how to position reverse ratings to minimize consumers' potential reactance to this practice. The platform might want to highlight both the economic benefits (e.g., facilitate the system efficiency) and social benefits (e.g., protecting the safety of both consumers and providers) to satisfy consumers with different views of reverse ratings.

**[References are available upon request.]**

**HOW DO GAMERS' MOTIVATIONS INFLUENCE THEIR ATTITUDE, PURCHASE INTENTION, AND WORD-OF-MOUTH RESPONSES TOWARD IN-GAME ADVERTISEMENTS?**

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**Keywords:** Gaming, In-Game Advertising, Motivation, Attitude, Word-of-mouth, Purchase Intentions

**Description:** This paper establishes a theoretical basis for investigating gamer motivations and player attitudes toward in-game advertisements.

**EXTENDED ABSTRACT**

**Research Question:** The present research builds on an emerging body of research in the gaming context (e.g., Chaney, Lin, and Chaney 2004; Grigorovici and Constantin 2004; Schneider and Cornwell, 2005). The study focuses on gamers' motivation and investigates how such motivations may influence players' attitudes toward in-game ads rather than ad characteristics or the impact of ads on brand recall. The current study likewise addresses the role of interpersonal gamer factors by examining the role of gaming motivations – as opposed to investigating intrapersonal factors such as personality and self-concept that impact gamer motivation. This study also extends extant research findings by examining the impact of gamers' attitude towards

in-game ads on behavioral responses extending beyond brand recall. Specifically, the study's research model facilitates the analysis of gamers' purchase and WOM intentions.

**Method and Data:** Data were collected from undergraduate and graduate students at three universities located in the mid-western, southwestern, and southern regions of the United States. Forty percent of gamers are between the ages of 18 and 35 years (Gough 2019), which makes university students an appropriate sampling frame for this research. Out of 650 respondents, 508 respondents played games (78%). Previously developed and validated measurement scales were used. Construct reliability and validity were assessed through the two-step procedure recommended by Gerbing and Anderson (1988). Next, an exploratory factor analysis (EFA) was conducted using principal component extraction and Varimax rotation, followed by a Confirmatory Factor Analysis (CFA) using AMOS 26. Motivation to play games was run as a second-order factor, with three dimensions (namely social, immersive, and achievement) as the first-order factors. To test the hypothesized relationships, structural equation modeling was performed using AMOS 26 software. Moreover, PROCESS Model 4 was employed to examine the mediation relationships.

**Summary of Findings:** Gamer motivations contributed to their receptivity toward in-game ads. Gamer motivations arose from players' desires to "earn" a combination of external (social influence-related) and internal (gratification-related) approvals and rewards as a result of their decisions to play. The 12-item motivation scale used in this study captured a three-dimensional suite of drives. First, interpersonal motives, grounded primarily on players' perceived opportunities to secure greater approval from and a sense of comradeship with others. These were *social* drives. Second, self-fulfillment, based on gamers' desires to exit their possibly dreary or boring realities (in their own perceptions) and to enter another presumably more

desirable gaming reality. These were *immersive* drives. Third, achievement, focused on perceived opportunities to elevate oneself in either one's own or others' eyes (gaming is routinely social and socially competitive in nature). This final motivational dimension focused on the opportunity that gamers might "earn" and enjoy to secure greater power, more possessions, and/or a more optimal character. These were *achievement* drives. Moreover, the results indicated that gamer motivations influenced players' receptivity toward in-game ads and in turn favorably influenced gamers' purchase intentions and propensities to spread word-of-mouth about either the ad messages or the brands associated with the brands.

**Statement of Key contributions:** This paper establishes a theoretical basis for investigating gamer motivations and player attitudes toward in-game advertisements. The key practical and theoretical takeaway from this study is that consumer motivations to play online games matter because those drives influence gamers' attitudes toward in-game ads, the likelihood that those gamers will purchase brands promoted in those ads, and gamers' probability of engaging in WOM activities. The results contribute to the existing gamer motivations to play and in-game advertising literatures. The results suggest targeted advertising recipient's responses to in-game advertising can be partially explained by the nature and power of gamers' motivations.

References are available upon request.

**Laughter is the Best Medicine: Exploring How Humor Resolves Advertising Incongruity for Absurd Advertisements**

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**Keywords:** *humor; absurdity; incongruity resolution; advertising*

**Description:** *Our research examines the relationship between consumer perceptions of humor and absurdity in advertising as a means to facilitate a favorable attitude towards an advertised product.*

**EXTENDED ABSTRACT**

**Research Question**

Extensive research shows that consumers that perceive an advertisement as humorous tend to hold a favorable attitude towards the advertised product (Eisend 2009). Additionally, one mechanism marketers use when incorporating humor in their advertisements is through the usage of absurdity, that is, presenting situations that deviate from a viewer's expectations (Weinberger and Spotts, 1989). However, research exploring the interaction between absurdity and perceived humor in the context of advertising is relatively unexplored. Therefore, this research examines the effectiveness of this widespread advertising strategy to generate a favorable attitude towards the advertised product. In the context of advertising, incongruity, synonymous with absurdity (Arias-Bolzmann, Chakraborty, and Mowen 2000), may be defined as "deviation from expectations" (Alden, Hoyer, and Lee 1993, p. 66). While incongruity is often deployed as a component of humorous advertisements, scholars debate whether incongruity alone is sufficient

to produce humor (Suls 1983) and have argued that it is the *resolution* of the incongruity that results in humor. In fact, advertising scholars have yet to examine the process of incongruity (ir)resolution when consumers are confronted with absurdity in advertising. Specifically, when confronted with an absurd advertisement, incongruity (ir)resolution may (not) generate humor. In turn, due to (the lack of) humor, consumers' perceptions of absurdity would (be maintained) decrease. Therefore, we predict that incongruity (ir)resolution process leads to humor indirectly impacting attitude specifically isolated to absurd advertisements.

### **Method & Data**

We conducted five experiments via Mturk to gather relevant data to better understand how consumers react when presented with an incongruous advertisement. We began by conducting a pilot study with the primary goal of assessing how perceived humor impacts consumers' perceptions of absurdity and how each measure impacts their attitude towards the product when presented with an absurd advertisement. This study featured an absurdity (measured) x perceived humor (measured) design. After being presented with an absurd advertisement, participants completed scales to measure their perceptions of absurdity, humor, and their overall evaluation of the advertised product. In all subsequent studies, the goal was to manipulate, rather than measure, absurdity to show that the negative effect of perceived humor on perceptions of absurdity is isolated to more absurd advertisements compared to less absurd advertisements. These studies featured a 2 (absurdity type: lower vs. higher) x perceived humor (measured) design. Participants were randomly presented with either an advertisement manipulated to be highly absurd or a visually similar, less absurd advertisement. All participants completed scales to measure attitudes towards the product, perceived humor, and perceived absurdity.

### **Summary of Findings**



In five experiments, across a variety of products (e.g., cat litter, breath mints, and ketchup), we demonstrate that consumers' perceived humor reduces their perceptions of absurdity, and that perceptions of absurdity diminish attitude toward the product in the advertisement while also controlling for perceived risk. Thus, we show that the incongruity (ir)resolution process occurs when confronted with absurd advertisements; however, absurdity, or incongruity, is not necessary for humor to generate a positive effect on attitude. Our research therefore provides support for the effectiveness of the widespread practice of depicting absurd situations as a means of evoking humor in advertising, but we advise marketers that wish to utilize this practice to become familiar with the incongruity (ir)resolution process in order to design advertisements that capitalize on its ability to generate humor.

### **Key Contributions**

Our research makes several theoretical and managerial contributions. First, we demonstrate the process of incongruity (ir)resolution when consumers are confronted with an absurd advertisement. Further, we show that incongruity (ir)resolution process leads to humor indirectly impacting attitude specifically isolated to absurd advertisements. Importantly, we also show that, despite the incongruity (ir)resolution process, humor maintains a direct, positive effect on attitude regardless of whether the advertisement is absurd or not. Thus, we maintain that the incongruity (ir)resolution process occurs when confronted with absurd advertisements; however, absurdity, or incongruity, is not necessary for humor to generate a positive effect on attitude. This is important for those advertisers that desire to develop absurd advertisements. Specifically, advertisers are cautioned to understand the incongruity (ir)resolution process when designing absurd advertisements so that the absurd advertisement is simultaneously humorous, otherwise potentially undesirable behaviors may occur among consumers.

*References are available upon request.*

## MARKETING MAN: AN ASSESSMENT OF MASCULINITY ADVERTISING

### APPEALS

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**Keywords:** masculinity, advertising, content analysis, gender, longitudinal analysis

**Description:** The current research investigates masculinity portrayals over time and across genres in men's magazines.

### EXTENDED ABSTRACT

#### **Research Question:**

To investigate the construct of masculinity and its functional role as an advertising element, we propose and address the following research questions:

1. How has masculinity been constructed and portrayed in men's magazines during the 2010s?
2. Do differences in masculine appeals present themselves across magazine genres?
3. Do differences in masculine appeals present themselves over the sampled period?

#### **Method and Data:**

To address the proposed research questions, the authors employ a content analysis of print advertisements from popular magazines sampled over two time periods (2010 and 2018). Magazines included in this study fulfilled the criteria of targeting a predominant "male audience"

represented by having a predominant male readership (51%). The following magazines and their respective magazine genre completed the sample: 1) *Sports Illustrated*, *Men's Health*, and *Runner's World* (sport/fitness), 2) *GQ*, *Esquire*, and *Forbes* (general interest), 3) *Out*, *Instinct*, and *The Advocate* (gay men's). The sample included 1,181 advertisements, distributed across general interest (42%), sport (26%), and gay men's interest (32%) magazine genres. Each advertisement included in the sample was content analyzed using a coding schema developed by the researchers and employed by six independent coders who underwent multiple training rounds using the coding schema. Upon completion of the final training round, coders independently analyzed an assigned sample. All coded variables met a minimum level of agreement ( $Ir \geq .80$ ). The authors report findings along three topical areas related to masculine oriented advertising appeals: masculinity appeals, advertising compositional appeals, and advertising aesthetic.

### **Summary of Findings:**

Among the sampled men's magazine advertisements, certain themes emerged on how masculinity was represented across three genres. Masculine depictions in advertisements can provide insights into the production of masculinity and its performative nature within society. Our findings suggest that there are boundaries for the display of masculinity across magazine genres and note that some aspects of masculinity have remained stable over the sampled period and others have reduced or increased in prominence.

Men within gay interest magazines were younger, thinner, and depicted as "consumers" or "partying", and were featured displaying greater latitude vis-a-vis interpersonal contact, touch, and explicitness. In addition, these men were often depicted in more revealing attire compared to men in sport and general interest magazines. Men in general interest magazines tended to be tall and young, and were depicted as solitary and stoic "fashionable" urban men featured in casual upscale

attire who had the greatest latitude in hair length compared to men in sport and gay men's magazines. Men in sport magazines tended to be middle-aged athletes featuring the most facial hair, body fat and musculature, while also having the greatest level of emotionality (aggression), compared to men in general interest and gay magazines.

**Statement of Contribution:**

When reviewing these data, masculine archetypes emerges across the sample in the form of masculine ad appeals. These archetypes may set boundaries on what is considered 'acceptable' forms of performative masculinity within society, specifically, these ad appeals may influence male readers who construct their own variation of masculine identity and aesthetic through a process of encoding the advertisement content, retaining information, and later retrieving the information and replicating the public messages into their private lives. While, the scope of this research cannot inform micro-level cognitive processing or behavioral effects, it presents descriptive evidence of masculine representation in the sampled public space, highlighting the forms of emergent masculinity and drawing attention to the types of masculinity underrepresented. Future research should focus on individual level assessment of masculinity to deepen the understanding on how masculinity, through exposure to masculine advertising appeals, is consumed, internalized, and replicated.

References are available upon request.

## **The Effect of Advertising on Online Reviews during New Product Releases**

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**Keywords:** *Online WOM; Advertising; Saturation effect; Decaying involvement; Endogeneity.*

**Description:** *This research examines the saturation effect of advertising on online review during the new product release period in the automobile industry.*

### **EXTENDED ABSTRACT**

#### **Research Question**

While there is consensus in the literature on the importance of online word-of-mouth in promoting brand equity and influencing sales (Chevalier & Mayzlin, 2006; Duan, Gu, & Whinston, 2008; Liu, 2006; Zhu & Zhang, 2010), scholarly inquiries regarding the effect of advertising on word-of-mouth (WOM) have yielded very contrasting results. Some studies document that offline advertising significantly increases consumer online activities including WOM (e.g., Chandrasekaran, Srinivasan, & Sihi, 2018; Rosen, 2009; Tirunillai & Tellis, 2017). However, other studies fail to find such a positive relation between advertising and online WOM (e.g., Feng & Papatla, 2011; Graham & Havlena, 2007; Onishi & Manchanda, 2012). Specifically, Graham and Havlena (2007) call such anomaly the “missing link.” In this study, we thus aim to shed light on reconciling the contradicting findings on the link between advertising and online word-of-mouth by examining (i) a time-varying effect of advertising via evidence of new automobile releases and (ii) an endogeneity bias in the relation between advertising and online word-of-mouth which can potentially be alleviated with a valid instrument.

**Method and Data**

The sample consists of monthly advertising expenditures and placements of 61 new automobile models of 27 brands after the new model release from Kantar Media's Ad\$ponder database between 2009 and 2014. We track a new model up to three years post-release. It is worth noting that the advertising data are collected on the individual model instead of brand/firm level, enabling finer inference in our empirical analysis. Auto reviews of the sample new models are text-mined from Edmunds.com, and financial variables are obtained from Compustat.

**Summary of Findings**

These findings support that the effect of advertising expenses on online reviews is time-varying which fades out gradually after a new product release. Advertising has a positive effect on online reviews at least for up to two years, with the strongest effect kicking in immediately after the new model release. This finding is in a spirit consistent with Chandrasekaran, Srinivasan, and Sihi (2018), Rosen (2009), and Tirunillai and Tellis (2017), who find that the effect of advertising is strongest in the short run. As time elapses and information accumulates, the available information is abundant and pioneering consumers lose incentives to post review. Accordingly, follower consumers gradually step in and are less likely to be engaged in nature. Consequently, the impact of advertising on online reviews would turn insignificant or limited-in-scope. These findings suggest that the positive effect of advertising exists not only for sales as previously documented, but also for online word of mouth. This can provide a partial explanation on why the ads-online WOM link is “missing” in certain samples which lump products newly released to the market with those that have been out for long. Thus, our findings show the necessity for future research to differentiate the samples of newly-released products versus seasoned products as the two may yield very different insights. Further, control variables generally work in the way expected. Larger sales from the previous period contribute to the online reviews in the following period, consistent with the view that WOM grows with the number of users. While not always significant, gasoline price is negatively related to online reviews, which is also intuitively meaningful as people are “driving less as higher gas prices sting (Borodovsky, 2018),” and less owner feedback and reviews would be expected.

**Key Contributions**

We make theoretical contributions to the literature on online-offline marketing synergy. We take the time-varying effect and the endogeneity bias into consideration when examining the ads-online WOM link. While numerous studies have been documented the mixed effect of advertising, which can be positive, insignificant, or negative (Chandrasekaran, Srinivasan, & Sihi, 2018; Feng & Papatla, 2011; Graham & Havlena, 2007; Onishi & Manchanda, 2012; Rosen, 2009; Tirunillai & Tellis, 2017), we find that the time-varying effect can provide a partial explanation to the contradicting results. There is a positive link between advertising and online word-of-mouth,

but this effect fades out gradually after new product releases. Thus, this link can disappear in the sample of seasoned products. These findings show the necessity for future research to distinguish the samples of newly released products versus seasoned products as the two may yield very different insights. Second, we make methodological contributions to the specification challenge by bringing firm leverage from the finance literature as an instrument for advertising expenditures. The endogeneity nature of advertising has been widely recognized by academia regarding the link of advertising and variables such as sales, WOM, and other online consumer activities (Danaher & Dagger, 2013; Dubé, Hitsch, & Manchanda 2005; Ho, Dhar, & Weinberg, 2009; Shugan, 2004). The limited research that addresses the endogeneity bias almost exclusively uses quasi-experimental settings, such as Super Bowl advertising campaigns (Chandrasekaran, Srinivasan, & Sihi, 2018). However, these settings are limited as data are mostly proprietary and not universally available for all media types or longer periods of time. In the non-experimental settings, 2SLS with IV can generate a consistent estimate, but the major challenge is to obtain valid instruments. We show that leverage as an instrument is theoretically valid and econometrically significant, satisfying the relevance and exclusion requirements.

*References are available on request.*

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**THIS IS AWESOME SO I'LL HAVE THE REGULAR: FEELING AWE DECREASES  
PREFERENCES FOR LIMITED EDITION PRODUCTS**

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**Keywords:** Awe; Emotions; Limited Edition Products; Scarcity; Experience of Connection

**Description:** This paper demonstrates the negative impact of using the emotion of awe in marketing communications of limited edition products.

**EXTENDED ABSTRACT**

**Research Question**

Positive emotion of awe—a feeling of reverential respect mixed with fear or wonder—impacts individuals' cognitive schema and shifts the focus of the individual from oneself to their environment and companies often use awe-inspiring elements in promoting their limited edition products (i.e. Renault and Volkswagen Limited Edition model depicted across vast landscapes, Coca-Cola Olympics Edition featuring inspiring stories of athletes). Although awe is commonly used in promoting limited edition products, research is yet to explore consumer outcomes associated with using awe in persuasive communications. Given that limited edition products highlight exclusivity, might this nature of exclusivity negatively impact connection to others promoted by feelings of awe? If so, how are the product preferences affected from this decreased

connection to others? Furthermore, what characteristics related to the consumer and the promotion may impact these outcomes?

### **Method and Data**

We conducted several studies to test the relationship between feeling awe and preferences for limited edition products. Study 1 provides initial evidence to support our main hypotheses. We analyze panel data on real TV commercials to demonstrate how feeling awe decreases consumers' behavioral engagement towards ads promoting limited edition products. Studies 2a (N=214) and 2b (N=314) then experimentally manipulate feelings of awe and examine how awe impacts consumers' preferences toward limited edition products. Study 3 (N=272) then tests our full conceptual model and examines how the experience of connection mediates our effects. Study 4 (N=342) examines the moderating role of consumers' need for uniqueness on the relationship between feeling awe and preferences for limited edition products. Study 5 (N=236) further investigates the moderating role of cause-related marketing cues. Finally, Study 6 (N=420) demonstrates the impact of awe on consumer behavior through an actual choice task.

### **Summary of Findings**

Results demonstrated that individuals feeling awe were less favorable towards limited edition products. This effect was based on the decreased experience of connection that consumers experience from the cognitive shift of focus to others when feeling awe and the exclusivity promoted by the limited edition product. Furthermore, boundary conditions to this effect were identified. Specifically, the effect of awe on preferences for the limited edition products were lower for individuals with higher need for uniqueness. On the other hand, when the limited

edition product was associated with a cause-related marketing strategy, use of awe as an emotional appeal increased preferences towards these products.

### **Statement of Key Contributions**

Our research suggest that marketers should exercise caution in using awe as an emotional appeal in promoting limited edition products. Across over 50 different products, we demonstrated that experiencing awe led consumers to be less favorable towards limited edition products.

Furthermore, these effects were heightened among consumers possessing higher need for uniqueness. Thus, companies targeting segments with an increased desire of exclusivity should exercise caution when using awe to promote limited edition products. On the other hand, this effect was reversed when the limited edition product included a cause-related marketing cue. Companies thus can combine a cause-related marketing promotion with their limited edition products to increase advertisement effectiveness.

References are available upon request.

**TRADITIONAL CELEBRITIES VERSUS SOCIAL MEDIA  
INFLUENCERS: EXPLORING ENDORSER EFFECTS ON  
AFRICAN AMERICAN MILLENNIALS' PURCHASE INTENTIONS**

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**Keywords:** *social media influencer, celebrity endorsement, consumer behavior, African American, product involvement, marketing*

Description: Social Media Endorsers and African American Millennial Consumers

### **ABSTRACT**

This study investigates the association between traditional celebrities or social media influencers with different product involvement levels for the African American Millennial market, driven by the Elaboration Likelihood Model. Findings suggest that celebrity endorsements are more impactful for medium and low involvement products while social media influencers are relatively preferable for medium involvement products. No statistically significant gender differences surfaced.

### **INTRODUCTION**

In this Digital Age, meshing consumer insights with mobile technologies to differentiate marketing processes can greatly influence branding (Fournier & Avery, 2011). Over 75% of social media consumers are affected by digital advertising when making purchase decisions, largely owing to the contribution of traditional celebrities and social media influencers (Barker, 2017). There are three Levels of Product Involvement (high, medium and low) and thus, must be taken into consideration. Product involvement level underscores the degree of investment and thought processing put into the decision-making process regarding a specific product type (Raymond & Tanner, 2012). As the United States becomes more ethnically driven due to population growth and African American numbers continue to rise, it will be increasingly significant for marketers to fine tune how to optimally tap into this ethnic market (Nielsen, 2016). Digital tools and social media today allow African Americans to express and celebrate their cultural identity in untethered and highly amplified ways. Due to the existence of major gaps in research on African American millennial consumers, there is also a lack of knowledge or direct research pertaining to the purchase intentions, preferences and decision-making processes of this segment. There is no research that elucidates their inclinations in terms of influencer or spokesperson type, level of product involvement and proclivity towards sustainability. Such research would serve to provide industry insight into the African American millennial segment

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and their advertisement preference, outlining how it affects their product perception and purchase intentions. Hence, the purpose of this research study is to explore consumer purchase intentions of African American Millennials on social media for low, medium, and high involvement products driven by influence from either traditional celebrities or social media influencers. In addition, endorser preferences are also tested for gender differences (male and female) among the African American Millennial market in the US.

## LITERATURE REVIEW

### Millennials and Online behavior

More than 93% of Millennials have an online status in some capacity (Meyers and Morgan, 2013). Millennials, also referred to as generation Y, are defined as individuals born somewhere between 1981 and 1996 (Pew Research, 2019). Since they are the first generation to be raised in a globally interdependent world, they are also the most receptive to changes in the digital landscape (Bucic, Harris & Arli, 2012). 75% of the millennial population has a profile on YouTube, Instagram, Facebook or Twitter (Meyers and Morgan, 2013). Hence, marketers must focus on novel online marketing techniques and determine which endorsers to use to promote different products.

### Traditional Celebrities

With the explosion of social media, the lines between traditional celebrities and social media influencers have been greatly blurred. A celebrity is simply someone who is famous or well-known (Erdogan, 2010). However, 'traditional celebrities' can be defined as individuals who gained their level of fame through their businesses, talents, or any means other than social media (Hitz, 2016). This would create a clear distinction between Beyoncé (traditional celebrity) and Zach King (social media influencer). Although Beyoncé does have a significant online presence, she gained fame through her singing career. Celebrities have been endorsing products for years now from the time Michael Jackson took on the brand ambassadorship of Pepsi (Fleck, Korchia

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and Le Roy, 2012). These celebrities are often hand-picked because of their attractiveness and perceived effectiveness in influencing consumer purchasing decisions (Fleck, Korchia, Le Roy, 2012). Physical attractiveness is in fact, perceived to be salient in driving endorser selection decisions (Erdogan, 1999). There is a positive correlation between celebrity attractiveness and consumer attitude, as well as consumer purchase intention (Petty et al. 1983; Erdogan, 1999). Due to the shift in technology use over time and the boom of social media influencers, it is imperative to research the degree of impact that traditional celebrities now have on African American millennial purchasing behavior.

### **Social Media Influencers**

In the recent age of emerging social media interest in platforms such as Facebook, Twitter, YouTube, Instagram, Snapchat, TikTok and others, the presence of businesses on social media has been deemed vital. Social media influencers have surfaced on these platforms and are a new way for brands to promote their products and reach African American Millennials as well as other audiences (Cauberghe and Hudders, 2017). Social media influencers (SMIs) represent a new type of independent third-party endorser who shape audience attitudes through blogs, tweets, and the use of other social media tools (Freberg, Graham and McGaughey, 2011). Shaping consumer attitudes is vital because attitude and purchase intention exhibit a strong correlation in consumer studies (Ting and de Run 2015; Tarkiainen and Sundqvist 2005). Having consumers create user-generated content that features their opinions on brands and products has contributed to the online version of "word-of-mouth", which birthed the social media influencer. Today African Americans are cognizant of where messages come from (the sources) and they are inclined to ensure that those messages are reliable or authentic (Podoshen, 2008). This aspect of word-of-mouth practices is highly pertinent when it comes to a traditional celebrity or a social media influencer endorsing a product targeted towards African American Millennials.

### **African American Millennials**

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According to Nielsen, there are 83.1 million Millennials currently present in the US. Of that figure, African Americans constitute 14%, approximately around 11.5 million. African American Millennials, on the other hand, constitute 25% of the total black population. The buying power of this segment has been experiencing a perpetual growth and is nearly \$1.2 trillion now. For Black households with incomes greater than \$100,000 annually, there was a 95% increase between 2004 and 2014, compared with just 66% for the total US population (Nielsen, 2016). In terms of technology and social media, 55% of Black Millennials report spending at least one hour a day on social networking sites, which is 6% higher than all US Millennials, while 29% say that they spend at least three hours a day, which is 9% higher than all Millennials according to Nielsen. Finally, 62% of African American Millennials agree that they feel “really good” about seeing celebrities in the media who share their ethnic background (Nielsen, 2016).

## Brand Associations and Product Involvement

Products have been categorized in a myriad of ways in consumer literature. For any product category, the level of involvement varies across consumers (Bloch, 1982). Consumer level of involvement depends on many attributes and “it is generally concluded that highly involved consumers search more for product attributes and make more product comparisons” (Eryigit, 2013). A *highly involved* customer may look at higher priced items more extensively because the investment involved is high risk. To ensure the attainment of value for his money, the consumer would likely engage in more research to understand and familiarize himself with the entire product and its offered features. Consumers buying low involvement products rely more on cues such as appeal, price and need (Nkwocha, et al., 2005). This type of customer does not spend as much time researching the product. An example of a product with low involvement is drugstore makeup. Effects of brand associations on attitudinal and behavioral brand loyalty differ for highly involved consumers and lowly involved consumers (Eryigit, 2013). Particularly for high involvement products, social media consumers may resort to influencers' views on the brand and its attributes.

## THEORETICAL FRAMEWORK AND HYPOTHESE



This study makes use of three distinct product levels of involvement. Low Level of Involvement: This product category features a makeup compact for less than \$10. Medium Level of Involvement: This product category features a pair of sneakers for over \$100. High Level of Involvement: A car that is \$20,000 or more. A consumer's attitude change can occur in two ways: by using either the central route or the peripheral route system. Using these two methods of receiving and processing information is called the Elaboration Likelihood Model (Bhutada, Perri and Rollins, 2017). Attitude formation via the central or peripheral route depends on the degree of engagement exhibited by the receiver in processing the information. Thus, attitude change under high-involvement situations will occur as a result of careful elaboration of the content of the persuasive message, using the central route. However, attitude formation in low-involvement situations will be navigated via the peripheral route using peripheral cues (Bhutada, Perri and Rollins, 2017) like attractiveness, emotional appeal, type of endorser and other elements that involve a low quotient of logic. In terms of choosing whether to associate a traditional celebrity or a contemporary social media influencer with a product that has either a low, medium, or high level of involvement, it is suggested that consumers have a more positive attitude towards high involvement products when they are endorsed by celebrities. However, for a medium and low involvement product, consumers will have a more positive attitude it is promoted by social media influencers instead. The following hypotheses and research questions are created to formalize the exploration of these research notions:

H1: The impact of the perceived Celebrity Endorsement is higher on consumers' intention to purchase a high involvement product, than a medium or low involvement product.

H2: The impact of the perceived Social Media Influencer is higher on consumers' intention to purchase a low or medium involvement product, than a high involvement product.

RQ1: Does African Americans' perception of celebrity endorsement differ from their perception of social media influencers' endorsements?

RQ2: Do African Americans' perceptions of celebrity and social media influencers differ between genders?

## **RESEARCH DESIGN AND METHODOLOGY**

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A quantitative survey procedure using Qualtrics was used to gather data using Dynata. The data was collected online in April 2019. The sample comprised of African American participants with ages ranging from 22 to 38 (Millennials). The total population of respondents was 3,181. Of that population, there were only 164 African American Millennials who took the survey and only 147 that cleared the qualifying question. The qualifying question made sure that the participants have at least one active social media account, either on Facebook, Instagram, YouTube or Twitter. The Social Media Influencer Attitudes scale (Dimofte, Forehand and Desphandé, 2003) and The Celebrity Attitudes scale (Maltby, Day, McCutcheon, Houran and Ashe, 2006) were employed. The Social Media Influencer Attitudes scale had a Cronbach's Alpha of 0.861 while The Celebrity Attitudes scale had a value of 0.885. The survey also included questions that measured attitudes towards low, medium and high involvement products endorsed by social media influencers and celebrities.

## DATA ANALYSIS, RESULTS AND DISCUSSION

For H1, a linear regression was run, the independent variable being *Attitude towards Celebrities* and the dependent variables being *low, medium and high involvement products*. For H2, another linear regression was run, the independent variable being *Attitude towards Social Media Influencers*. For H1, results revealed that consumer attitude association of high involvement products with celebrities was not statistically significant. It was actually medium and low involvement products that proved to be statistically significant with a p-value of 0.00. *See Fig 1.* This concretizes the proposition by the ELM that for low and medium involvement products that require less critical thinking due to low risk attached, consumers generally employ the peripheral route rather than the central one to influence their purchasing behavior and decisions. H2 was partially supported as only medium involvement products demonstrated being statistically significant in their relationship with consumer attitudes towards social media influencers. *See Fig 2.* For social media influencers, the emotional appeal and attractiveness quotient are lower than those for traditional celebrities, so their locus of influence is greatest for medium involvement products ( $p < 0.05$ ) that require more cognitive skills and some semblance of logos for the consumer with the central route coming into play when making purchase decisions. However, the findings exhibit that neither celebrities nor social media influencers can impact or influence

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consumer purchasing decisions towards high involvement products. For RQ1, a Paired Sample T-Test was run. The results revealed there was a significant difference in African American Millennial perceptions of both types of endorsers and that the sample had a slightly higher preference for social media influencers with the mean being 4.5229 against the celebrity mean value of 4.4967 ( $p < 0.05$ ). See Fig 3. Hence, choosing different type of endorser for different type of product may be more adequate for this target market. For RQ2, an Independent T-Test was run. Findings revealed that there was not a statistically significant difference in gender preferences because both p-values were over 0.05 with the *Celebrity Attitudes*  $p=1.141$  and *Social Media Influencer Attitudes*  $p=0.680$ . See Fig 4.

## LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Firstly, the products selected in different involvement categories for testing are not gender-neutral. The use of a cosmetic foundation/base as a low involvement product is primarily consumed by females, so limitation exists with regards to responses from male participants. Another limitation of the study is the endorsers' prior influence from other platforms. Non-binary genders and other ethnicities should be considered for future research. Degree of attractiveness of the product could also be controlled for the study across product categories. Lastly, data was received from participants who may have more than one social media account and preference, emotional connectedness and frequency of use for each may vary.

## CONCLUSION

The paper presents findings on African American Millennials' perception of different types of endorsers for different product types. It is also pertinent to clarify that African American Millennials connect with not only influencers of their own race but with the influencers' choice of platform and these have a correlation with product involvement. Such research not only serves the world of scholarship but also provides insights for marketers aiming to optimize advertising processes on social media for different ethnic segments.

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**APPENDIX**

Effects	B	SE	$\beta$	p
Intercept	.717	.284		.013
Intention to Purchase High Involvement Products	.126	.068	.149	.068
Intention to Purchase Medium Involvement Products	.545	.083	.585	.000
Intention to Purchase Low Involvement Products	.154	.066	.173	.022

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Intention to Purchase Products of Varying Involvement Levels when endorsed by a Traditional Celebrity

Fig 1

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Effects	B	SE	$\beta$	p
Intercept	1.852	.360		.000
Intention to Purchase High Involvement Products	.140	.096	.172	.148
Intention to Purchase Medium Involvement Products	.431	.112	.487	.000
Intention to Purchase Low Involvement Products	.022	.096	.025	.820

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Intention to Purchase Products of Varying Involvement Levels when endorsed by a Social Media Influencer

Fig 2

Pair Sample	M	SD	t	p
Attitude Towards Celebrity	4.50	1.57	.794	.000*
Attitude Towards Social Media Influencer	4.52	1.52		

Fig 3

Intercept	Male		Female		F(1,102)	p
	M	SD	M	SD		
Attitude Towards Celebrity	4.71	1.41	4.25	1.68	2.784	.141
Attitude Towards Social Media Influencer	4.59	1.51	4.46	1.55	0.048	.680

Fig 4

## **EXTENDED ABSTRACT**

### **WHAT DETERMINES DIGITAL AD PERFORMANCE? AN ANALYSIS OF ADVERTISING VIDEO ON YOUTUBE**

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Insper - Institute of Education and Research

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**KEYWORDS.** digital marketing; advertising performance; ad attributes

**DESCRIPTION.** Investigating the common characteristics among the best performing videos ads on YouTube.

#### **ABSTRACT**

We identify which attributes present in the advertisements contribute to consumer viewing and sharing. We carried out t, a qualitative study cataloged and analyzed 35 YouTube ads. Based on that, we produced 8 propositions, which formed 16 bundles, converted in ads visual script. Using a conjoint analysis, we explored the: narrative, purpose, interaction, genuine characters, celebrities, technical themes, humor, and market on ads.

#### **RESEARCH QUESTION**

With so much content available to consumers daily, brands compete for attention with relevant ads, making consumers not only watch and be interested in the subject but also engage, share and build fresh stories from this dialogue (Tucker, 2014). But what are the characteristics of online ads that influence consumer sharing and engagement? The way a narrative is presented (Chang, 2009), celebrities (Southgate et al. 2010), how the product appears in the ad (Christensen, 2002) and the feelings that ads arouse (Berger, 2012) are some characteristics pointed out by the literature as influencing the performance of online content.

Some characteristics have already been addressed by the literature, but studies explore them individualized. In actual life, however, consumers decide whether to share a video with the agglomerated analysis of characteristics, thus, it seems prudent to study the subject using the characteristics present in the videos together. This paper aims to



understand which characteristics of online ads affect their performance. We seek to answer: 1) what are the common characteristics among the best performing videos and 2) what is the importance of each of these characteristics in performing an online ad?

## **METHOD AND DATA**

The first study sought to raise the common characteristics among videos. We selected 35 videos (between 15 seconds and 1 minute), from three different brands for analysis. Although some ads have a shorter duration, the study understood that with less than 15 seconds it would be difficult to capture the elements and characteristics necessary for analysis. The intention was to eliminate bias and compare characteristics, even in different markets. We conducted data analysis through content analysis. As a result, the data motivated us to produce 8 propositions.

For the second study, the characteristics present in the propositions of study one were used to form new advertisements. Since the study aimed to analyze the characteristics all together and relate them to their performance (views, and sharing), we collected data to be analysed by conjoint analysis method. The bundles were created based on the following attributes: narrative (how the brand is inserted in the ad); purpose (the presence of a major theme or problem that the brand wants to solve); interaction (element that can be present within the scene or through character/consumer interaction); the presence of genuine characters and/or stories; presence of celebrities; feeling of high arousal (humor); how technical the theme is; and the market in which the brand operates (sale of product or service), as a variable that contextualizes the segment.

It is important to note that prior to the advertisements that were used in the study, two pre-tests (in the same style as the final advertisements) were conducted. One to check whether people recognized the celebrity's presence in the ad and another one to validate whether the humor created in the advertisement actually matched the humor perceived by people. Only after the pre-tests, the bundles (ads with attributes) were developed. Each bundle (sixteen) became a visual ad script.

## **SUMMARY OF FINDINGS**

As the major results, we found consumers share more ads that address genuine problems, talk about generic themes, and do not have humor. The brand being contextualized in a story, and a celebrity in the ad also influences, although this impact

seems to be lower. Narrated stories, with no interaction between the characters, are more likely to go viral.

Some of these themes had already been discussed in the previous literature, but others such as the theme presented and the way the brand appears in the ad, have not been studied previously.

### **KEY CONTRIBUTIONS**

This study contributes to the literature on marketing by 1) raising the characteristics of online ads that can influence viewing and viralization; 2) complementing the literature with new characteristics, not yet addressed 3) analyzing the characteristics of ads in an integrated manner with the purpose of improving ads performance 4) bringing insights to the market of which are the best characteristics to apply to an ad if the aim is to go viral. For the first time we observed together the characteristics of the ads, in such a way that it was possible to observe the level of magnitude of each of them.

- **“A SODA A DAY” – WHEN CANDIDATE COMPARISONS HELP OR HURT IN PENNIES-A-DAY PRICING**
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Travis Tae Oh, Yeshiva University
- Key Words: Candidate Comparison, Pennies-a-day, Vice, Virtue, Self-Control
- Description: Our research compares the effectiveness of nominal pennies-a-day (PAD) pricing strategy (e.g., \$1 a day) with PAD prices framed with candidate comparisons (e.g., a cup of coffee a day) on consumers’ attitude and purchase intention, and explores the moderating role of the type of candidate comparisons.

### **EXTENDED ABSTRACT**

#### **Research Question:**

Numerous studies have shown that consumers are not fully rational when assessing price promotions. One of the most well-known pricing strategies is temporally reframing a large "aggregate" expense to a series of small "per day" expense, known as the "pennies-a-day" (PAD) effect (Gourville, 1998). One strategy of PAD that is commonly used yet understudied is candidate comparison, which refers to substituting PAD pricing with a frequently purchased product (e.g., “a cup of coffee a day”).

Given that motivational fit (e.g., Higgins, 2012) can influence consumers’ judgment and decisions, we expect that the fit between the product type and the candidate comparison may influence consumer's attitude toward the target product. In particular, previous findings have shown that consumers derive more utility by choosing a virtue

product from a set which contains vice options than from an all-virtue one (Dhar & Wertenbroch, 2012). Thus, our research compares the effectiveness of nominal pennies-a-day (PAD) pricing strategy (e.g., \$1 a day) with PAD prices framed with candidate comparisons (e.g., a cup of coffee a day) on consumers' attitude and purchase intention, and explores how vice and virtue candidate comparisons influence the effectiveness of PAD for product categories that reflect vice or virtue.

**Method and Data:**

Experiments using between-subjects design are conducted.

In study 1, three between-subjects conditions (price reframing: PAD vs. soda as candidate comparison vs. aggregate price) are employed, each featuring a purchase scenario and a gym advertising poster. The dependent variables are liking toward the advertisement and purchase intention of the promoted gym membership.

Participants are significantly more favorable to price reframing of PAD and candidate comparison than aggregate pricing ( $ps < .01$ ).

In study 2, a 2 (price reframing: PAD vs. soda as candidate comparison)  $\times$  2 (product category: gym membership vs. TV channel subscription) between-subjects design is used. We also ask respondents whether they have an active gym membership or a paid-TV channel subscription.

The main effect of price reframing is marginally higher for candidate comparison than PAD ( $p < .09$ ). A three-way interaction between price reframing, product category, and TV subscription is significant ( $p = .028$ ).

In study 3, participants are randomly assigned to one of two between-subjects conditions (candidate comparison: soda vs. milk). We include a brief self-control scale.

Soda is significantly more effective than milk to increase liking and intention ( $p = .004$ ). There is a significant interaction effect between candidate comparison and the self-control trait ( $p = 0.048$ ).

### **Summary of Findings:**

Through three studies, we find candidate comparison can be more effective than nominal PAD pricing strategy and the type of candidate comparison moderates the PAD effect, depending on the focal product.

Specifically, study 2 shows for participants with no TV subscription, the effect of PAD framing and candidate comparison on gym membership purchase does not differ, replicating study 1; however, participants with paid-TV service are more likely to purchase gym memberships under the soda framing. This differential effect may be due to the characteristic of soda that is pre-tested to be less healthy and thus more related to watching TV, which in turn motivates the participants to engage in a healthy behavior (i.e., signing up for a gym membership).

Study 3 shows soda is significantly more effective as a candidate comparison than milk to increase liking and intention. A significant interaction effect between candidate comparison and the self-control trait is found: soda is more effective than milk for participants with low self-control, but this effect disappears for highly self-disciplined participants. Consistent with study 2, it seems people with lower self-control (i.e., who watch TV more) are more likely to be prompted by a candidate comparison that triggers self-control goals.

**Key Contributions:**

Our findings provide insights to both academic research and business practices.

In terms of the contribution to marketing knowledge and literature, our research is one of the very few studies to investigate the ad effectiveness between a nominal PAD pricing strategy and a candidate comparison reframing, since Gourville's (1998) seminal paper. In addition, based on the motivations literature, we explore how motivational fit can influence consumers' attitude and intention in a PAD strategy by examining the effect of different types of candidate comparison (i.e., vice vs. virtue).

Our findings also provide practical implications to marketers when considering candidate comparisons as a PAD pricing strategy. For example, for-profit companies promoting virtue products (e.g., gym membership) are expected to attract more consumers to sign up for their products when they use a vice candidate comparison on the advertising posters.

Overall, this paper aims to open up more empirical research and gather evidence for the differential effects of candidate comparisons, a strategy that is frequently adopted by marketing managers.

# **Marketing Strategy**



**AI-ENABLED TOP- AND MID-LEVEL MARKETERS: INTEGRATING SYSTEMATIC REVIEW AND TOPIC MODELING APPROACHES FOR THEORY DEVELOPMENT IN MARKETING**

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**Keywords:** *Top-level and mid-level marketers; Marketing strategy; Theory development; Systematic review; Marketers' roles, responsibilities, and tasks*

**Description:** *This research develops theory by integrating findings from (i) topic modeling of industry documents and (ii) systematic review of six decades of research on marketers at different levels within the organizational hierarchy (i.e., top, mid, and lower) to form a holistic framework of how AI enables marketers and their respective roles, responsibilities, and tasks.*

**EXTENDED ABSTRACT**

**Research Question**

Marketing managers, both top and middle, have received significant scholarly attention over the past six decades, especially mid-level marketing managers (e.g., Buzzell 1970; Chng et al. 2015; Goldfarb and Yang 2009; Low and Fullerton 1994; Saegert and Hoover 1980; Vance 1959).

Concurrently, technologies used by marketers have received considerable scholarly attention in marketing (Bloom, Milne, and Adler 1994; Collins 1987; Ernst et al. 2011; Hunter and Perreault 2007; Jayachandran et al. 2005; Little 1979; Spralls, Hunt, and Wilcox 2011). However, despite extensive research, marketers' roles, responsibilities, and tasks, and how technology enables marketers, are poorly understood. Therefore, this research aims to develop theory by providing a

holistic understanding of marketers, both top and middle, their roles, responsibilities, and tasks, and identify gaps in the literature. Next, we investigate and delineate AI's enabling role of marketers, both top and middle, by integrating the findings from the systematic reviews and the topic modeling procedure applied to industry publications.

### **Method & Data**

To ensure the representativeness and high quality of studies included in the review, we (i) examined the Financial Times 50 journal list (Ormans 2016), (ii) identified the twelve most influential management journals for Phase I, and (iii) relied on the journals identified by Morgan et al. (2019) for Phase II with the addition of *Journal of Personal Selling and Sales Management*. We used the Scopus database to search the title, abstract, and keywords of articles in the identified journals with no restriction on time period with specific search phrases. Phase I: the total number of articles was 95 for mid-level and 196 for top-level manager research. The filtering and selection procedures provided a final set of articles reviewed (121 total – 69 top-level and 52 mid-level managers). Phase II: the total number of articles was 608 for mid-level and 63 for top-level marketers. The filtering and selection procedures provided a final set of articles reviewed (253 total – 35 top-level and 218 mid-level marketers). Additionally, we used the findings from Phase I as a coding/classification schema for the Phase II findings. Finally, we systematically reviewed research on topic modeling (~40 articles) and applied topic modeling to ~8,300 industry publications sourced from LexisNexis.

### **Summary of Findings**

We build upon the systematic review by Whitley et al. (2020) by developing an organizing framework based on the role(s), responsibilities, and tasks of top-level marketers. Top-level marketers exhibit four roles – strategic leadership, informational, decisional, and relational.

Viewing the four roles as interconnected, we derive general responsibilities, and associated tasks, for top-level marketers. Similar to their roles, top-level marketers' responsibilities – interfacing with stakeholders, marketing strategy formulation, and organizational strategy making – are also intimately connected. In contrast to top-level marketers, no systematic review exists for mid-level marketers, despite extensive research over the past sixty years. Our findings indicate a strategic leadership role, based on mid-level marketers' formal position, which requires them to take on a similar role as top managers despite having differing responsibilities (Heyden et al. 2017; Tarakci et al. 2018; Yang, Zhang, and Tsui 2010). Furthermore, the systematic review led us to uncover two additional roles for mid-level managers, interfacing with stakeholders and change initiator. Additionally, mid-level marketers, in their interfacing role, have four fundamental responsibilities: (i) vertical linking, (ii) horizontal linking, (iii) external linking, (iv) or some combination of the three. Additionally, we developed themes via a topic model with 110 topics on the industry publications.

### **Key Contributions**

This research is uniquely positioned to contribute to the marketing literature. Specifically, because the AMA prides itself as the "essential community for marketers," it is essential that marketing scholars have a clear understanding of marketers' roles, responsibilities, and tasks, which may differ given different levels in the organizational hierarchy. However, to date, marketing lacks an organizing framework for marketers in general. Thus, we systematically review and integrating the literature on marketers across all organizational levels to develop a holistic framework that incorporates interactions across the different organizational levels. We also systematically review research on managers in the management literature and integrate these findings to fill any potential research gaps for marketing. The findings hold significant potential

for marketing scholarship. We also build upon recent approaches aimed at guiding theory development (Hunt 2020; Zeithaml et al. 2020) by implementing a topic modeling approach to theory development (Croidieu and Kim 2018) to understand the enabling role of AI for marketers. These findings can aid marketing managers by having a better understanding of how AI can enable them and other marketers executing their respective roles, responsibilities, and tasks. We develop an agenda for future research.

*References are available upon request.*

## **BRINGING DIGITAL INNOVATIONS TO INDUSTRIAL MARKETS: A RESEARCH AGENDA ON MANUFACTURER'S EMERGING FOCUS ON SOFTWARE SYTEMS**

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**Keywords:** digital innovation, software systems, industrial markets, value creation

**Description:** Industrial manufacturers' struggle while supplement their product portfolio with digital innovations reveals research questions worth studying which were carved out using focus groups.

### **EXTENDED ABSTRACT**

#### **Research Question**

Challenged by fierce competition and accelerating advances in information technology, industrial firms are increasingly commercializing innovative market offerings from the digital realm. Manufacturers like Boeing (AnalytX), General Electric (Predix), Johnson Controls (Digital Vault), and Schneider Electric (EcoStruxure) have introduced *industrial software systems* (ISS) consisting of a software core complemented by services that enable industrial customers to increase the efficiency and effectiveness of their value creation processes through connectivity, data, and automation.

Manufacturers often struggle when bringing ISS to market and top management's digital ambitions frequently fail to translate into targeted bottom line results. Despite their experience in marketing high-technology products, goods-centric firms often lack the capabilities for commercializing ISS.

With their software core, ISS pose particular challenges for industrial manufacturers that are attuned to market high-technology machines and have recently advanced to bringing services and solutions to markets. Learning how to market ISS to industrial customers is a pivotal task on manufacturers' journey towards digitization. Against this backdrop, we develop and discuss a research agenda aimed at advancing managerial practice and academic knowledge on marketing ISS.

### **Method and Data**

In order to carve out research priorities, we guided two focus groups with senior and C-level managers from leading manufacturing firms.

### **Summary of Findings**

ISS are complex market offerings with a software core complemented by services that enable industrial customers to increase the efficiency and effectiveness of their value creation processes through connectivity, data, and automation. As such, they are a specific form of product-service-software systems with an input-based value proposition. When bringing ISS to market, manufacturers often face serious roadblocks, yet marketing research provides limited guidance on how to master these challenges. Against this backdrop, this paper conceptualizes ISS as industrial market offerings (1) consisting of a software core (2) complemented by services (3) that enable industrial customers to increase the efficiency and/or effectiveness of value chain processes. ISS achieve this by (4) connecting machines and further elements in an industrial company's ecosystem, hereby enabling (5) the generation of information and/or (6) automation.

Further, this paper positions the concept in the marketing literature, and proposes an agenda for future research. Based on focus groups with C-level and senior managers, the authors

carve out ISS research priorities, spanning the five areas of (1) marketing strategy, (2) marketing organization, (3) innovation, (4) sales, and (5) customer behavior.

### **Key Contributions**

Our study makes two essential contributions to academic research. First, by conceptualizing industrial software systems (ISS), our study enriches literature on digitalization in industrial markets. Specifically, prior literature has recently started to build a nomological net of digital innovations in industrial markets by conceptualizing phenomena such as digital technologies (Ardolino et al., 2018), smart product–service systems (Chowdhury, Haftor, & Pashkevich, 2018), and digital servitization (Kohtamäki et al., 2019; Sklyar et al., 2019), which our study extends with a conceptual basis for research on ISS.

Second, our study provides a detailed agenda for developing and testing theories on the marketing of ISS. Specifically, using focus groups we carve out 12 research priorities. Given their high relevance for managerial practice, we encourage academics to still generate new knowledge on these issues.

In addition to our academic contributions, our study provides first guidance on how managers might deal with these challenges. Specifically, our structured analysis of focus groups provides managers with several food for thought items from experienced managers of other industrial manufacturers. Managers may use these items to reflect on potential pathways of dealing with their own challenges when bringing ISS to market.

### **References**

References are available upon request.

**CHIEF MARKETING OFFICER POLITICAL SKILL AND MARKETING  
DEPARTMENT'S INFLUENCE**

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**Keywords:** *chief marketing officer, political skill, national culture, marketing department's influence*

**Description:** This study investigates the role of CMO political skill and its impact on the authority of the marketing function in the firm.

**EXTENDED ABSTRACT**

**Research Question**

Marketing literature provides ample evidence on the importance of the chief marketing officer (CMO) in the firm. However, the domain of the CMO's individual characteristics and skills remains relatively unexplored. Specifically, there is a dearth of research devoted to the understanding of the effect of the CMO's skills on organizational outcomes. We intend to address this gap via investigation of the CMO political skill and its impact on the influence of the marketing function in the company.

**Summary of Findings**

This research advances the understanding of the CMO's individual characteristics and the role of the marketing function in the firm. We spotlight the CMO's political skill (i.e., the ability to influence others), propose that it has an impact on the marketing unit's influence in the company, and present related boundary conditions. We delineate how individual (i.e., marketing experience



of the C-level executives), firm (i.e., firm size and performance), industry (i.e., competitive intensity and market turbulence), and country (i.e., selected dimensions of the national culture based on Hofstede (2001) – power distance and masculinity) characteristics affect the relationship between CMO political skill and the marketing department's influence.

### **Key Contributions**

This research aims to make the following contributions. First, to the best of our knowledge, this is the first study focused on the investigation of the skills of the CMO. We examine the CMO political skill and its impact on the marketing department's influence, connecting two important research streams. Second, this study extends the understanding of the international aspects of the CMO research initiated by Engelen, Lackhoff, and Schmidt (2013). We study power distance and masculinity, the national culture dimensions omitted in prior CMO research. The outcomes of this study would benefit both marketing scholars and firm executives in a better understanding of CMO's individual characteristics and particular circumstances when their role is more meaningful.

*References are available on request.*

## **CREATING CUSTOMER ENGAGEMENT VALUE BY WINNING BACK LOST CUSTOMERS**

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**Keywords:** Customer win-back, customer engagement, customer engagement value, lost customers

**Description:** This manuscript examines lost customers' engagement value (CEV) in the light of firms' win-back efforts with four empirical studies.

### **EXTENDED ABSTRACT**

#### **Research Question**

Research has successfully demonstrated that winning back lost customers has enormous financial potential. Yet, existing studies have a rather narrow, transactional understanding of win-back success, focusing on how customers' purchases can be won back. Contrariwise, customer engagement value (CEV) captures that customers may exhibit a range of valuable behaviors, such as purchasing, referring other customers, influencing others, and sharing knowledge. This manuscript applies equity theory to integrate CEV into win-back management by investigating the behavioral side effects of win-back efforts. Specifically, the manuscript tackles two major research questions: *First*, how can firms induce CEV with their win-back efforts towards lost customers? In this regard, we address whether firms need to provide tangible win-back offers to lost customers by comparing these offers with purely communicative efforts and no efforts at all. *Second*, does win-back success positively affect CEV? In this regard, and to understand the impact of firms' win-back efforts and their

success, we address to what degree the CEV of lost, won-back and active customers differs. Also, we investigate whether the effects of firms' win-back efforts are short-term or long-term.

### **Method and Data**

While existing win-back literature almost exclusively builds on single-firm or single-industry datasets, this investigation follows a multi-method and cross-industry approach with four studies. *Study 1* is a field experiment among a retailer's lost customers ( $n = 1,695$ ) who were contacted with two kinds of win-back efforts (tangible versus communicative), followed by a survey on CEV. *Study 2* is a cross-industry laboratory experiment with lost customers ( $n = 1,156$ ) that have recently defected from a business relationship. The experiment replicates the mechanisms in a controlled setting and across industries while manipulating different values of win-back rebates. *Study 3* represents a cross-industry survey on lost customers ( $n = 1,505$ ), capturing the circumstances of their defection and win-back experiences as well as CEV. To examine long-term effects, the majority of the customers ( $n = 904$ ) participated a second time eight months after the first survey wave. *Study 4* represents a benchmark survey, capturing the CEV of customers in an active business relationship ( $n = 1,071$ ) for comparison with the CEV of lost and won-back customers in the other studies.

### **Summary of Findings**

Preliminary results show that firms have a substantial impact on their lost customers' engagement behaviors. Specifically, firms' win-back efforts affect lost customers' perceived justice, which has a direct effect on CEV. Importantly, the findings illustrate that attractive win-back efforts positively affect perceived justice (and thereby CEV) even if customers are not won back. While efforts containing a tangible offer (e.g., a price discount) show the

largest uplift in perceived justice and CEV, even communicative efforts lead to a significant increase compared to no win-back efforts at all. Furthermore, the customer's perceived justice determines the probability that the customer returns to a business relationship with the firm. Partly, the studies evidence that a successful win-back positively affects CEV, implying that won-back customers show a significantly higher CEV than lost customers. For some industries, the CEV of won-back customers even compares to the CEV of active customers with uninterrupted business relationships. Importantly, the positive effects of perceived justice and win-back success on CEV are relatively stable over time as well as robust across industries and defection reasons.

### **Statement of Key Contributions**

*For academia*, we broaden the typically transactional scope of win-back literature. Specifically, we uncover the behavioral side effects of customer win-back management across industries with both field and laboratory evidence. We demonstrate that the perceived justice created by firms' win-back efforts explains a significant proportion of the variance in lost and won-back customers' engagement behaviors. By disclosing that firms' win-back management can create CEV even without successful win-back, our findings contribute to a more multi-dimensional understanding of win-back and its consequences. *For business practice*, the studies substantiate that the right win-back efforts create value beyond immediate purchases. Even without successful win-back in terms of purchases, win-back management can re-engage lost customers. This insight demonstrates that the value of the efforts is larger than commonly assumed and that a focus on win-back success in a purely transactional sense is misleading. Given that many firms still do not actively show any win-back efforts at all, these findings motivate more firms to do so. Specifically, even purely communicative efforts make a difference, providing a highly cost-efficient way to create CEV.

**DEMYSTIFYING DISRUPTION, MYSTIFYING MANAGEMENT:  
TOP EXECUTIVES' PRIVATE NARRATIVES  
OF DIGITAL TRANSFORMATION**

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**Keywords**

Top executives, institutional theory, qualitative research, digital transformation

**Description**

In private conversations with 80 top executives, this qualitative inductive research finds surprisingly unrevolutionary narratives of the digital revolution and interprets this belittling of digital transformation as the result of institutional and identity pressures to mystify management.

**EXTENDED ABSTRACT**

**Research Question**

The Marketing Science Institute urges marketing to enhance its influence in the C-suite to exploit digital transformation opportunities. To convince the C-suite of their digital strategies, marketing departments need to understand how executives perceive digital change. Public discourse often portrays digital transformation as an unprecedented revolution that demands radical strategic shifts. This rhetoric raises legitimacy pressure on senior executives who are

responsible for initiating the digital transformation despite not being digital natives themselves. As senior executives are humans with fears, hopes, and constraints, this study leverages privileged access to 80 board members, CEOs, and directors to study their private narratives of digital transformation: 1) How do top executives describe, in private, how they perceive digital change? 2) How do they reflect, in private, how they manage digital change?

Based on Upper Echelons Theory (Hambrick and Mason 1984), we expected that the executives' diverse experience, personalities, and backgrounds would produce a heterogeneous set of perceptions of and responses to digitization. To our surprise, we found a high level of consistency between the private narratives. Even more surprising, this shared narrative portrayed the digital revolution as everything but revolutionary. Our interpretation of these observations identifies identity and institutional pressure as homogenizing forces.

### **Method and Data**

To explore digital transformation from a top executives' perspective, we conducted a qualitative, inductive study (Thompson, Locander, and Pollio 1989). We had open, in-depth conversations (Spradley 2016) with 80 CEOs of German DAX companies, founders of big family businesses, and board members.

Our fieldwork started with six case studies in industries that publications point out as strongly affected by a digital revolution: banks, IT companies, and telecommunications providers (Eisenhardt 1989). In each firm, we had scheduled conversations with several executives and additional, casual conversations with the executives' team members. For triangulation, we collected archival material such as internal presentations and public interviews by the executives. When we found a surprisingly consistent, shared narrative across firms that un-revolutionized the revolution, we attempted to find deviating voices in a second field phase with top executives from other industries. Despite our efforts to find confessions of

fears and self-doubt, we kept hearing similar narratives. This shifted the focus of our interpretation toward asking how such homogeneity could emerge across personalities and industries. Re-coding our observations, we identified legitimacy pressures from the executives' institutional environment and identity-protecting motives that socially homogenized a dual narrative: demystifying digital disruption while mystifying management.

### **Summary of Findings**

Many executives' answers placed digitization in a historical line of evolving technology and customer behavior, beginning with automation in the first industrial revolution. Many depicted digitization as a decade-old continuity, starting with the substitution of analog computing. Interestingly, many connected digital customization to the decade-old imperative of customer-centricity. With this story, executives diminished the historical uniqueness of digital change and questioned disruption myths.

The narrative of an evolution allowed executives to position their digital transformation work as "change management as usual," one in a series of corporate transformations they had successfully implemented. Their descriptions of structure, systems, and project playbooks sounded conventional to the field researcher indeed. Executives explicitly claimed to be drivers of, not driven by digital change.

The dual narrative of demystified disruption and mystified management is functional to top executives: It shows them in control. It justifies symbolic action and requests for time in front of supervisory boards. Neo-Institutional Theory (DiMaggio and Powell 1983) explains how social processes shape isomorphic "best practice" responses and uphold myths of managerial rationality. Literature on identity work (Luedicke, Thompson, and Giesler 2010) explains how individuals strive for coherent self-stories. Therefore, a survivor bias in the C-suite could explain executives' consistent self-efficacy.

## **Key Contributions**

### *Contributions to Research*

Our study makes several contributions to research. First, it is a rare document of the C-suite's voice in a time of transformation. Second, it underscores the need to study social constructions of collective perceptions and individual preferences. While we cannot classify the observed transformation efforts as successful or unsuccessful, our observations suggest an explanation of corporate inertia and failure to adapt in the face of industry transformation. Decades ago, critical management scholars called attention to managerialism, that is, self-serving politics of a managerial elite in an attempt to cement their power. Further research should explore how the observed narratives affect organizations' digital transformation efforts.

### *Contributions to Marketing Practice*

Our study also makes an important contribution to marketing practice: Top executives expressed an interest in increasing customer-centricity through digitization. To enhance marketing's voice in the C-suite, marketing managers can exploit this renewed interest in customer-centricity. For that, marketing managers need to tailor their messages to executives accordingly. They should not cite threats of digital disruption to justify their digital projects. Rather, marketing managers should embed their digital strategies into the narrative of customer-centricity: They should describe their digital agendas as steps toward the customer.

*References are available upon request.*



**BALANCING TRADE-OFFS IN DESIGNING THE CMO JOB:**

**A FINANCIAL ACCOUNTABILITY PERSPECTIVE**

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Keywords: chief marketing officer, job design, job roles, resource leveraging, agency costs

Description: The paper focuses on investigating the impact of the CMO's job design on firm value.

**EXTENDED ABSTRACT**

**RESEARCH QUESTION:** What is the importance of designing a CMO's job on the firm value, and how does this job design impact firm value?

**METHOD AND DATA:** We employ the event study method to test the research hypotheses describing how the design of the CMO's job influences firm value. We generate our sample by identifying all announcements describing the appointment of executives with the term "marketing" in their title that appeared in major daily newspapers and wire services (e.g., Business Wire, Dow Jones News Wire, PR News Wire, Wall Street Journal) between 2005 and 2016.

**SUMMARY OF FINDINGS:** We find that designing a CMO's job when focusing on the decisional role creates more firm value as compared to other two roles by optimally managing the trade-off between resource leveraging and agency costs. However, we also find that a focus

on the decisional role is less than optimal when the leveraging of marketing resources requires a more boundary-spanning approach.

**KEY CONTRIBUTIONS:** Our research has several theoretical contributions. First, our research provides evidence that identifying of the CMO's job design is a crucial factor determining the financial impact of the CMO. Second, our study indicates that recognizing the financial impact of the CMO involves benefits from marketing resource leveraging and agency costs for the alignment of shareholder's and CMO's interest. Third, we conceptualize the trade-off involved in designing the CMO's job by incorporating agency cost theory with resource-based theory. Fourth, our research offers a classification mechanism for studying the design of a CMO's job. Our research also has managerial contributions. Our findings are helpful to CEOs looking to create a CMO position and for CEOs who may not be getting the results they want from their current CMO position. The second crucial managerial implication relates to current CMOs and prospective CMOs. The CMOs need to know which job design may help succeed in their career, and our research provides a solution for this.

# Exploring Shoppers' Psychological Safety in Post-Covid-19 era

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## Abstract

Psychological Safety in ecommerce, a new construct was shown in a recent study to have the maximum impact on the shoppers' Behavioral Intention to purchase from the online shopping website. We replicate the findings of the study in the post Covid-19 era. The findings confirmed psychological safety as a predominant determinant of purchase intention of online shoppers. Further, the findings show that abstract values such as epistemic, hedonic and social values are becoming increasingly important to online shoppers' buying intention in the post-COVID-19 era. These findings have useful practical implications for future strategy of online retailing businesses.

## Keywords

Utilitarian Value, hedonic value, social value, epistemic value, psychological safety, site loyalty.

## INTRODUCTION

Online shopping has greater risks than instore shopping (Lee & Tan, 2003). Shoppers cannot examine the product before buying, they are unsure when deliveries would arrive, have greater apprehension about the after sales service from the unknown vendor and worry about protection against identity theft (Masoud, 2013). In instore shopping, shoppers do have an option to pay cash if they apprehensive about online payment. As a result, research has focused on ways to measure the degree of shopper security in online shopping through constructs such as perceived risk, trust and more recently psychological safety.

Scales for perceived risk measure the potential for loss in shopping online. Research has shown that higher perceived risk reduces the intention of consumers to shop online (Zhang et al., 2012). Trust is a belief the other party will behave in a dependable, ethical and socially responsible

manner. Studies have shown that lack of trust has a detrimental effect on intention to buy on online websites (Gefen, Karahanna and Straub, 2003). Recently using a grounded theory approach Kakar (2020) introduced psychological safety in online shopping as a construct to measure shopper comfort and security. Although this nomenclature is new in the marketing literature this construct has been popular in work literature.

Taking constructs from work literature is not new to marketing (Kakar, 2020). In the past, one of the enduring concepts of customer satisfaction in marketing also evolved from job satisfaction literature (Pfaff, 1973; Czeipiel, Rosenberg and Akerele, 1974). The adaptations were considered to have face validity because the concept of satisfaction is common in both (Maddox, 1981). Later user satisfaction in information systems was adapted from customer satisfaction in marketing and was for a long time an important construct for measuring information systems success and use (Ives, Olson, and Baroudi, 1983; Torkzadeh and Doll, 1991; Delone and Mc Lean, 1992; Seddon, 1997).

In the work literature, "Psychological safety is being able to show and employ one's self without fear of negative consequences of self-image, status or career" (Kahn, 1990, p. 70). Edmondson (2003) argued that an individual team member before asking a question, reporting a mistake, seeking feedback, or pro- posing a new idea assesses the interpersonal risks associated with such actions (Cannon & Edmondson, 2001; Edmondson, 2004a, 2004b). If in her assessment she feels that she might be ridiculed, criticized, or embarrassed, then she is likely to refrain from doing so. If, however, she feels psychologically safe, a term first used by Schein and Bennis (1965), to be able "to show and employ herself without fear of negative consequences to self-image, status, or career" (Kahn, 1990), she may not be reticent in communicating freely.

Likewise, in online shopping Psychological Safety (PS) measures the shopper perception of unpleasant consequences in B2C ecommerce transactions – personal, financial, informational and service (Kakar, 2020). Just as lack of psychological safety in work setting has negative consequences on - motivation, cooperation and knowledge sharing - required for effective and harmonious functioning of an organization, lack of PS in shopping may similarly negatively impact shopper motivations and intentions to transact with an online vendor. Thus, even though the PS construct is new in consumer marketing literature, Kakar and Kakar (2020) argued that it has both face and content validity.

The study by Kakar (2020) was conducted in the pre-COVID-19 era. The construct of PS identified in the study addresses a gap in value literature. There is a stream of literature (Kakar, 2012a,b,c; Kakar, 2014; Kakar 2015a,b,c, ,f; Kakar, 2016 a,b,c,d; Kakar, 2017; Kakar, 2018a,b,c,d,e,f; Kakar, 2020a,b,c,d,e,f) which has confirmed the various types of values derived from the users from the use of software particularly utilitarian value (UV), hedonic value (HV) and social value (SV). The grounded theory approach was able to identify PS as the most important construct that impacts loyalty of the user to use and continue to use the software.

Yet, The post-COVID-19 era has brought about some momentous changes in our society including some that are irreversible in their impact on consumers and businesses. This study therefore replicates the Kakar (2020) study in the post-COVID-19 era to assess if the construct of PS is still relevant and identify whether there are any differences in the findings.

## Method

The replicated study was conducted using the questionnaire with 39 items from the Kakar (2020) study and 4 items from an existing Online Shopping Intention construct (see Appendix A). We were provided access to the same subjects who participated in the pre-COVID-19 study for this post-COVID-19 study. We received a response from all 222 students who participated in the earlier study. The participants who provided their response to the questionnaire were 19-24 years old. 51.3% respondents were female, and 49.7 % respondents were male. The average age of respondents was 19-23.2 years and average length of online shopping experience of 5.1 years.

## Results and Analysis

Factor analysis of data collected (Appendix B) using VARIMAX rotation and eigenvalue of 1 revealed 8 new factors and a scale for SI. Based on an analysis of the magnitude and scree plot of the eigenvalues, the total number of factors were reduced to 6 and the total number of items reduced from 39 to 37. The two factors which were removed had only one item each. The high loadings (>.50) of the items which were retained demonstrated convergent validity of items within factors, and no cross loadings (>.40) between factors demonstrated discriminant validity between factors.

The reliability of all the scales were greater than .80 (see Table 1). Further none of the inter-correlations between the scales were greater than .65 (see Table 1). The correlations between the all pairs of constructs was found to be significant less than one indicating that each construct is adding something new (Bagozzi & Heatherton, 1994). The highest correlation was .51 (and the associated confidence interval calculated by adding or subtracting two standard deviations from correlation was 0.43 to 0.53).

Name of the scale	Cronbach's Alpha	Items	UV	HV	SV	QV	EV	PS	SI
Utilitarian Value (UV)	0.92	6	1.00						
Hedonic Value (HV)	0.93	6	.20	1.00					
Social Value (SV)	0.80	6	.16	.24*	1.00				
Quality Value (QV)	0.89	7	.26*	.26*	.24*	1.00			
Epistemic Value (EV)	0.80	3	.14	.22*	.16	.21	1.00		
Psychological Security (PS)	0.90	9	.08	.16	.09	.17	.11	1.00	
Shopping Intention (SI)	0.83	4	.39**	.26*	.24*	.32*	0.21*	0.51**	1.00

**Table 1. Reliability of Constructs and their Correlation**

Further, for each pair of construct the average variance extracted was greater than the squared structural path coefficient between them (Fornell and Larcker, 1981). The values of average variance extracted was found to range between 0.73 and 0.78 while the maximum value of the squared path was 0.45. Thus, discriminant validity was supported. As the average variance extracted was greater than 0.50 for all factors convergent validity was further supported. Further the constructs behaved as expected. All factors were found to be positively correlated to the shoppers' intention to shop online thereby supporting criterion-related validity.

We then used the Moderated Hierarchical Multiple Regression (MHMR) technique for data analysis. MHMR reveals how well each

independent variable predicts the dependent variable, after extracting variance due to other independent and control variables in the regression equation. Extraneous variables such as age, gender and length of use experience were controlled for in the analysis of subject responses. Various studies had shown the impact of gender, age and experience on user behavioral intentions (e.g. Gefen and Straub, 1997; Gefen, 2003; Venkatesh, Morris, and Ackerman, 2000; Wu and Lu, 2013; Chau and Hui, 1998; Aarts, Verplanken and van Knippenberg, 1998). In the first step of MHMR analysis gender, age and length of use experience of subjects were included, followed by UV in the second step, HV in the third step, SV in the fourth step, QV in the fifth step, EV in the sixth step and PS in the seventh and final step. The results of MHMR are present in Table 2.

Step	Variables added in each step	Online Shopping pre-Covid-19 Change in R- Square (Regression Coefficients)	Online Shopping post-Covid-19 Change in R- Square (Regression Coefficients)
1	Control variables: Gender, Age, Experience,	0.09* (0.02, 0.05*, 0.11*)	0.10* (0.07*, 0.06*, 0.09*)
2	Utilitarian Value (UV)	0.16* (0.12**)	0.16* (0.14**)
3	Hedonic Value (HV)	0.05* (0.04*)	0.08* (0.04*)
4	Social Value (SV)	0.05* (0.06*)	0.10* (0.15*)
5	Quality Value (QV)	0.07* (0.08**)	0.07* (0.14**)
6	Epistemic Value (EV)	0.09* (0.08*)	0.11* (0.07*)
7	Psychological Security (PS)	0.25* (0.21*)	0.31* (0.29*)

\*  $p < .05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.01$

**Table 2. MHMR for impacts of UV, HV and SV on SL**

## Findings

MHMR analysis show that overall the constructs used in the study accounted for a noteworthy 67 % of variance in SI of shoppers in round 1 and 83% of variance in SI in round 2. PS was the dominating factor impacting shopping intention accounting for 25% of variance in round 1 and 31% of variance in round 2. Thus, PS was found to be more important to shoppers in post-covid-19 era than in the pre-covid-19 era. This is understandable given the economic stress and

health related anxieties faced by people. SV was also found to be more important in the post covid-19 era than in the pre-covid-19 era. This could be due to the enhanced need to derive SV through shopping. With limited instore shopping in the post-covid-19 era, online shoppers can derive SV in virtual environment through social commerce and social distancing and stay-at-home orders in the state may have enhanced its importance in shoppers SL.

## Contribution

This implications of the findings for online shopping are clear. With abstract values such as SV, HV and EV becoming salient in the post-COVID-19 era in online shoppers' buying intentions, online shopping websites should focus on provide values that have traditionally been the strengths of instore shopping. Further, as social distancing and other restrictions due to coronavirus are expected to remain with us for a long time, it is an opportune time for online shopping retailers to use available technology to provide features that make online shopping more enjoyable and socially engaging, that will give them unassailable advantage over instore shopping in the long run.

For example, with the virtual reality (VR) revolution already underway, online retailers can use VR as a means to provide instore consumer shopping features on their websites to attract the customers away from brick-and-mortar stores. VR can be used to convert physical items to 3-D digital objects that can be manipulated by consumers and even provide them with tactile sensation. Customers like to examine and touch merchandise before buying. The Total Retail Survey (2016) highlighted that more than 60% of shoppers frequent instore shopping outlets because they can touch, feel and examine merchandise before buying. VR can also help shoppers to wander freely through the virtual online store rather than be confined to two dimensional images.

Past studies have shown that online shopping already has a utilitarian advantage over instore shore shopping. By allowing people to indulge in their fantasies and providing social presence, VR and other digital technologies can also help online retailers storm into traditionally instore strongholds by making online shopping an even more enjoyable and socially rewarding experience than instore shopping. Online shopping can be multi-sensory and real-lifelike experience through the use of aesthetically pleasing colors, images, videos and music; and simulation of presence of crowds through the use of Artificial Intelligence (AI). Live chats with trained sales assistants and collaborative online shopping through the use of co-browsing technologies can provide a socially engaging environment to people starved of social contact due to covid-19 restrictions. Thus, in the post of covid-19 world VR, AI and other technologies can

be judiciously deployed by online retailers to provide shoppers an immersive, pleasurable but healthy and safe shopping experience.

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## APPENIX A

Items	Description
<b>Utilitarian Value (UV)</b>	
UV1	I save money when I shop at this website
UV2	The shipping charges are reasonable
UV3	My purchases are done cheaper at this shopping site than if I had made them elsewhere
UV4	I was able to get everything I needed at one stop
UV5	I was able to shop at this site without disruptions and delays
UV6	My order was delivered accurately
<b>Hedonic Value (HV)</b>	
HV1	I enjoy shopping at this site, not just because I am able to get my purchases done
HV2	I enjoy browsing this website even when I have no intention of buying anything
HV3	Shopping on this website is fun
HV4	In my opinion, shopping at this site is a pleasant way to spend leisure time
HV5	While shopping at this site, I feel happy
HV6	The website images are aesthetically pleasing
<b>Social Value (SV)</b>	
SV1	Patronizing this shopping site fits the impression that I want to give to others
SV2	I am eager to tell my friends/acquaintances about this shopping site
SV3	I feel that I belong to the group of shoppers who shop at this site
SV4	I found this shopping site to be consistent with my style
SV5	I felt like a smart shopper by shopping at this site



- SV6** This shopping site gave me something that is personally important or pleasing for me
- Psychological Safety (PS)**
- PS1** I know if I made a mistake in the order the online retailer would offer me a second chance
- PS2** I have concerns about cybersecurity at this website R
- PS3** The website has a friendly return policy
- PS4** When I buy at this site, I am guaranteed the best possible deal
- PS5** I have concerns about identity theft when shopping online R
- PS6** I have concerns about counterfeit goods when shopping online R
- PS7** I feel secure about accepting deliveries from this online retailer
- PS8** I am assured about timely deliveries
- PS9** If I have a question before placing the order, I get honest answers quickly
- Epistemic Value (EV)**
- EV1** I can examine the product almost as if I am shopping in a brick and mortar store
- EV2** There is always something new and exciting when I browse this website
- EV3** It is as if I am embarking on a great adventure when I visit this website
- Quality Value (QV)**
- QV1** The website is easy to locate
- QV2** I can easily check my order status
- QV3** The website is legible
- QV4** I was able to find the website quickly
- QV5** The web pages loaded quickly
- QV6** It was easy to navigate the website
- QV7** The website is well-organized
- Shopping Intention (SI)**
- SI1** If asked, I will recommend others to use this online shopping website
- SI2** If I want to buy anything, I first consider this online shopping website
- SI3** I can hardly consider changing to other shopping websites
- SI4** I will continue to purchase frequently from this shopping website in future

**APPENDIX B**

Items	Factors						
	1	2	3	4	5	6	7
<b>SV1</b>	<b>0.896</b>	-0.048	-0.069	0.014	0.021	0.022	-0.014
<b>SV2</b>	<b>0.908</b>	-0.009	-0.012	-0.046	0.064	0.046	-0.010
<b>SV3</b>	<b>0.916</b>	0.125	-0.029	-0.045	0.084	0.020	0.115
<b>SV4</b>	<b>0.824</b>	0.085	0.023	-0.129	0.111	-0.032	0.087
<b>SV5</b>	<b>0.848</b>	0.058	0.009	0.067	0.036	0.037	0.030
<b>SV6</b>	<b>0.826</b>	0.006	0.093	-0.022	0.066	0.122	-0.013
<b>UV1</b>	0.055	<b>0.937</b>	0.171	0.077	0.054	-0.027	-0.013
<b>UV2</b>	0.087	<b>0.828</b>	0.141	0.255	0.047	0.085	0.098
<b>UV3</b>	0.015	<b>0.900</b>	0.142	0.080	-0.030	0.033	0.089
<b>HV1</b>	-0.071	0.114	<b>0.643</b>	0.093	0.006	0.142	0.153
<b>UV4</b>	-0.046	<b>0.870</b>	0.134	0.145	0.069	0.057	0.150
<b>HV2</b>	0.092	0.035	<b>0.872</b>	0.050	-0.007	0.103	0.152

Items	Factors						
	1	2	3	4	5	6	7
UV5	-0.040	<b>0.892</b>	0.182	0.077	-0.053	0.158	0.059
HV3	-0.003	0.034	<b>0.889</b>	0.039	0.094	0.246	0.069
UV6	0.129	0.868	0.027	0.110	0.084	0.010	0.013
HV4	0.029	0.388	0.709	0.049	0.051	-0.010	0.063
HV5	0.042	0.135	<b>0.865</b>	0.024	-0.057	0.222	0.080
HV6	0.028	0.063	<b>0.838</b>	0.018	0.223	-0.054	0.205
SI1	-0.005	0.017	0.359	<b>0.783</b>	0.220	0.041	0.212
SI2	-0.012	0.000	0.096	<b>0.857</b>	0.109	0.086	-0.024
SL3	0.009	-0.026	0.085	<b>0.880</b>	0.019	0.076	0.014
SI4	-0.012	0.034	-0.043	<b>0.838</b>	0.212	0.079	0.045
PS1	-0.096	0.214	0.098	0.060	<b>0.803</b>	0.086	0.027
PS2	0.088	0.193	0.048	-0.044	<b>0.881</b>	0.072	-0.006
PS3	0.038	0.003	0.087	0.087	<b>0.839</b>	0.010	-0.022
PS4	0.055	0.024	0.033	-0.060	<b>0.787</b>	0.059	-0.002
PS5	-0.063	0.191	0.132	0.056	<b>0.818</b>	-0.006	0.074
PS6	0.225	-0.049	0.208	0.012	<b>0.765</b>	-0.032	0.091
PS7	0.205	0.102	0.189	-0.011	<b>0.845</b>	0.010	0.081
Ps8	0.090	0.079	0.000	0.059	<b>0.845</b>	0.117	-0.005
PS9	0.042	0.049	-0.039	0.123	<b>0.847</b>	0.097	0.021
EV1	0.253	0.074	-0.019	0.049	0.069	<b>0.874</b>	0.111
EV2	0.090	0.087	0.033	0.025	0.025	<b>0.810</b>	0.078
EV3	0.072	0.052	0.023	0.004	0.037	<b>0.893</b>	0.178
QV1	-0.067	0.226	-0.066	0.185	-0.057	0.200	<b>0.887</b>
QV2	0.065	0.195	0.070	0.212	0.091	0.203	<b>0.858</b>
QV3	0.049	0.017	0.046	0.031	0.088	-0.011	<b>0.786</b>
QV4	0.046	-0.020	0.061	0.036	0.072	0.038	<b>0.898</b>
QV5	-0.062	0.225	-0.060	0.178	-0.055	0.216	<b>0.814</b>
QV6	0.043	-0.004	0.211	-0.036	0.226	-0.060	<b>0.864</b>
QV7	-0.013	0.155	0.263	0.074	0.229	0.094	<b>0.840</b>

## **EXPLORING THE PATHS TOWARDS SERVICE GROWTH IN MANUFACTURING COMPANIES**

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**Key Words:** *servitization, growth paths, manufacturing companies, qualitative study*

**Description:** *This study identifies different growth paths to services and solutions and their distinct challenges.*

### **EXTENDED ABSTRACT**

#### **Research Questions**

B2B manufacturing companies are in an ongoing process of servitization and develop and commercialize services to stay competitive. To date, however, managers lack guidance on *how* to transform their goods-centered business and venture into value-adding services and solutions. While extant research focuses on the drivers of servitization and servitization outcomes, findings are scarce about typical service growth paths of manufacturing companies. With our study, we expand previous findings on servitization by identifying different growth paths to services and solutions and the gaps that companies need to overcome.

**Method and Data**

We conducted a qualitative study to identify typical service growth paths and their distinctive challenges. Data was gathered using semi-structured expert interviews with 9 managers from 8 different manufacturing companies in Germany. Diversity is enhanced by including managers from different industries and company sizes. Data was analyzed using content analysis (Carson et al. 2001; Mayring 2010).

**Summary of Findings**

We show the existence of three distinctive growth paths. We reveal that there is no strategy that fits all, but that companies prefer typical paths of customer or technology growth. Companies on the customer growth path support their customers in their business processes, while companies on the technology growth path focus on technological developments and seek to increase the efficiency of their own product. Companies can combine the customer and technology growth path in a step-by-step approach or take a direct path to solution growth.

The interviews further reveal path-specific gaps. Firms on the customer growth path primarily face a customer intimacy gap; the technology growth path is mainly concealed with a potential data and digitalization gap and an internal acceptance gap. Companies on a direct path to solution growth have to overcome contract component as well as organizational structure gaps.

**Key Contributions**

We make important contributions to marketing research. We are the first to empirically investigate typical growth paths to services and solutions, building on the conceptual work by Ulaga and Reinartz (2011). We further extend prior work on the enabling drivers of servitization by analyzing the path-specific gaps that cause manufacturers to struggle on their specific road to services and solutions.

Our qualitative study also provides important insights for marketing practice. Managers become aware of the different options that they can choose from on their way to servitization and are thus able to systematically plan their servitization venture. Moreover, our results help companies choose the right path that matches their initial situation as well as the management instruments that prevent them from specific servitization gaps.

*References are available upon request*

## **GOING DIGITAL TO CONFORM AND TO PERFORM: LEARNING MECHANISMS UNDERPINNING THE BUDGETARY DECISION ON DIGITAL ADVERTISING**

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**Keywords:** digital advertising, strategic change, institutional theory, organizational learning, organizational isomorphism

**Description:** We investigate learning mechanisms underpinning the budgetary decision on digital ad spending.

### **EXTENDED ABSTRACT**

#### **Research Question**

Despite our rich understanding of whether or how much and when digital advertising contributes to a firm, the literature lacks understanding of the factors leading firms to allocate budgets to digital advertising. This research attempts to fill the research gap in the literature by addressing the following: (1) What are the drivers of digital ad spending? (2) what are the contingencies influencing the drivers' effects on digital ad spending? Drawing on neo-institutional and learning theories, this study delineates how firms pursue legitimacy as well as performance through their decisions about digital advertising budgets.

**Method and Data**

We estimate a structural panel vector autoregression model using a multi-source dataset composed of 69936 firm-quarter observations on ad spending and five learning drivers from 2007 to 2019.

**Summary of Findings**

We find that various learning sources ranging from consumers to social norms shape digital ad spending. Consistent with our expectation, constraint-related contingencies moderate the relative effects of the learning sources on the budgetary decision.

**Key Contributions**

We complement existing discussion on the effectiveness of digital advertising by shedding light on drivers of digital ad spending. We propose a comprehensive framework that captures various learning sources influencing budgetary decisions on digital advertising.

**PERSONAL VALUE –  
HOW CMO EXPERIENCE INFLUENCES VALUE CREATION AND  
APPROPRIATION**

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Keywords: Value Creation, Value Appropriation, Chief Marketing Officer, Upper Echelon

Description: The paper examines the relationship between career and role-specific experience of CMOs and value creation and appropriation

**EXTENDED ABSTRACT**

**RESEARCH QUESTION**

By creating and appropriating value firms allocate their limited amount of resources between innovation and differentiation. The trade-off between value appropriation and creation is a fundamental strategic decision for firm performance in the short and long term. The Chief Marketing Officer (CMO) is a member of the top management team responsible for providing strategic leadership regarding the marketing activities of a firm. To best our knowledge, we lack an understanding of the influence of CMO career paths and value creation and appropriation. Thus, we want to enhance existing research by answering the research question, how the variety of career experiences and role-specific experience of the CMO influences value creation and appropriation.

**METHOD AND DATA**

To test our hypothesis, we gathered a sample of all U.S. firms included in the S&P 500 in the 12-year period between 2006 and 2017 for at least three consecutive years. We focus our



research on larger firms because of the low prevalence of CMOs in smaller firms. We used the firms' annual Form-10K submissions, proxy statements, annual reports, and other publicly available sources such as executives' professional biographies, articles in the press, company websites, and executive's social media profiles (e.g., LinkedIn) to collect the data regarding the personal characteristics of the CMO. In total, we get 1,120 observations for value creation and 930 observations for value appropriation.

Our model includes a wide array of control variables that have the potential to influence decisions regarding marketing strategy. To decide which variables to include in our models, we follow existing research on CMO characteristics, marketing strategy, and outcomes of CMO presence. We conduct a fractional logit regression to test our models on marketing strategy and prove the robustness of our models with various robustness checks.

## **SUMMARY OF FINDINGS**

We find that the amount of a broad array of distinct professional, institutional, and functional experiences a CMO gathered before the appointment predicts differentiation and innovation. The CMO positively influences differentiation depending on the broad array of experience gathered before the appointment. We assume that this strategic decision derives from their tendency towards risk-taking and their broader knowledge of the environment of a firm deriving from a high degree of career variety. On the opposite, CMOs degree of career variety negatively influences innovation. Career variety leads to a low commitment to the firm, which conflicts with innovation investments, which usually are long term oriented. A high degree of career variety also reduces the knowledge of the firm innovation potential and hence can explain, the negative effect on innovation. Role experience, an experience gathered after the appointment negatively influences innovation. This can also be motivated from a personal point of view, older CMOs might avoid strategies that pay-off in the long run, because they

can have left the position if the strategy monetizes. This can apply to the CMO, which usually has the shortest role tenure within the TMT and their possibility of turnover is negatively influenced by role-tenure.

### **STATEMENT OF KEY CONTRIBUTION**

We contribute to research in three ways. First, we enhance CMO research, by revealing the impact of CMO experiences and show, that the different outcomes regarding the presence of the CMO and firm performance may be explained by personality differences. Additionally, we examine the effect of the CMO on strategy and underline, the importance of the marketing function. Second, we contribute to marketing strategy research, by examining the influence of CMO experiences, to further shed the light on how the strategy of a company derives. Third, we advance upper echelons literature by examining the effect of CMO experience on strategic decisions. Our results also contribute to research on career variety by broadening them to CMO and marketing strategy outcomes.

Practice can then benefit from our findings regarding the relationship between career variety and strategy to choose the candidate likely to positively influence the preferred strategy. Moreover, investors can base their evaluation decisions more precisely on the experience of the CMO, indicating which marketing strategy emphasis to expect.

References are available upon request.

## PRICE CUES AND RETAIL COMPETITION

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**Keywords:** Pricing cues, reference prices, sales support, retail competition, channel coordination

We explore the retailer's decision to display pricing cues to the consumer and the impact it has on (a) consumer demand, (b) retail prices and (c) manufacturer channel coordination decisions.

### EXTENDED ABSTRACT

While some retailers only reveal their transaction prices to consumers, others display pricing cues like a promotional price, a compare-at price, or the level of discount from another price.

Extant literature has shown that displaying such pricing cues can increase consumers' perceptions of a deal and enhance product purchase rates. Yet, not all retailers engage in this practice. By not displaying pricing cues, retailers increase the effort consumers have to exert to determine the quality of the deal; this has the potential to dampen demand. Why, then, would a retailer not display pricing cues? Are there differences among retailers when it comes to this practice? What drives those differences? We answer these questions in this paper.

We develop a consumer utility model that takes into account various principles of reference prices that are documented in the behavioral literature: we model the disutility when a pricing cue is absent, the positive utility from the price gap (between the transaction price and the pricing cue) when a pricing cue is displayed to the consumer, and the negative effect of an incredulous price gap on consumer utility. We then derive the demands facing two competing retailers who are asymmetric in their sales support provision and determine the retailers' optimal pricing cue strategies. Thereafter, we explore the effect of the pricing cue decision on the optimal policies of the retailers and the manufacturer. In doing so, we address an important gap in the

extant literature in this area: why retailers may differ in their propensity to display pricing cues. Finally, we examine the impact of the retailers' pricing cue decisions on the manufacturer and discuss the potential for channel conflict when the manufacturer's preference for displaying pricing cues may run counter to the strategies of the retailers. Taken together, our findings have direct relevance to retailers making pricing-cue decisions and to the decisions and choices of consumers and manufacturers.

We find that the asymmetric display of pricing cues dampens the price competition between the retailers. By modeling retailer asymmetry in sales support provision, we are able to derive some interesting insights about how pricing cues impact the prices and retail sales support levels. A service-focused retailer that hides its pricing cue provides a lower level of sales support than it does when it displays its pricing cue. This lower sales support also hurts the price-focused retailer by limiting its free-riding benefit from the sales support of the service-focused retailer. When a price-focused retailer does not display its pricing cue, the service-focused retailer charges a higher price; this increases the level of sales support provided and benefits both retailers. This result explains the anecdotal evidence that service-focused retailers are more likely than price-focused retailers to display their pricing cues.

We validate these results empirically by analyzing pricing cue data from a number of online retailers. The empirical analysis reveals that retailers that display pricing cues charge higher transaction prices, that service-focused retailers are more likely than price-focused retailers to display pricing cues, and that service-focused retailers prefer to use pricing cues that are less portable. Finally, we identify the potential for channel misalignment when the manufacturer may want the retailer [not] to display its pricing cue while the retailer prefers otherwise, and show how manufacturers can use a subsidy payment to coordinate the channel.

References are available upon request.

## **Refining Retail Mobile Commerce Activities for an Enhanced Firm Performance**

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**Keywords:** mobile commerce, mobile commerce activities, customer journey, firm performance

**Description:** The paper develops the concept of mobile commerce activities (MCAs) with four dimensions including guidance, connection, conversion, and relation, and examines the impacts of the four components on overall firms' performance.

### **EXTENDED ABSTRACT**

**Research Question** – As consumers increasingly use mobile devices for a variety of activities in the retail environment, retailers engage in multiple and diversified mobile commerce activities (MCAs) to satisfy customer needs. To effectively allocate companies' resources among MCAs, it is crucial for retailers to understand the role of different types of MCAs and possible implications on the firms' overall performance. The goal of this research is to explore the structure of MCAs and understand its impacts on firm performance.

**Method and Data** – We first conducted a qualitative study to build an updated MCAs list from sources including academic articles and industrial data. This generates a comprehensive list of 21 MCAs commonly used by major retailers in the field. We then designed an online survey to collect data from 202 executives who work for larger retailers with at least 1,000 employees. The respondents indicated their retail experience from clothing (40%), consumer electronics (30%) and automobile-related (16%) industries.

The R package *psych* (Revelle 2015) was used to perform exploratory factor analyses (EFAs), while confirmatory factor analyses (CFAs) and the structural equation model (SEM) were estimated with the *lavaan* R package (Rosseel 2012).

**Summary of Findings** – Results of the analysis reveal the structure of MCAs as a two-order construct with four distinctive factors as guidance, connection, conversion, and relation. The guidance factor reflects firms' activities that optimize information on the mobile platform to improve consumers' decision-making process. The contact factor is related to the firms' communication efforts including mobile message, coupons, and other related marketing messages. Conversion summarizes retailers' efforts to improve in-store technology such as mobile payments and fast Wi-Fi-connection to convince in-store consumers to make purchases. The last factor of relation includes retailers' mobile activities aimed to build long term customer relationship. Our results indicate that all the four dimensions have positive joint effects on overall firm performance while mediated by firms' mobile commerce performance.

**Statement of Key Contributions** – Our research advances understanding of mobile commerce by developing the concept of MCAs and identifying the four distinctive components of MCAs supported by the empirical results. This extends the current literature on mobile commerce that mainly provided a theoretical discussion of the MCAs classifications. The results show that all the four MCAs components have positive impacts on firms' performance whereas the specific activities under each component are interchangeable. The findings provide an important guidance for retail managers to effectively manage wide range of MCAs.

**References are available upon request.**

## **TOWARDS DESIGNING A RAISON D'ÊTRE OF MARKETING IN THE AGE OF AI**

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### **History of the paper**

The paper is founded within the “**define**” foundation of the DT methodology and based on what has been so far paved within the previous chapters. This part of the research establishes a new raison d’être for marketing by concentrating on designing a model of rapprochement between traditional marketing and AI. Furthermore, the emergence of the gap between a traditional and an AI-driven marketing reality is closed in terms of determining what AI is and how an applicable outline could be made apparent for a possible alignment.

This paper proposes a theoretical framework of a DWA designed for marketing in the age of AI. Marketing raison d’être pivots towards the dimension of AI and the boundaries of traditional marketing founded within the logic of economics do not have sufficient requisite variety to attenuate the complexity of the global cyberspace-markets. The paper was written in July 2020, submitted and accepted to the AMA 2021 Winter Academic Conference - The Human Side of Marketing in the Age of Digital Transformation- Track- Marketing Strategy, February 19-21 St. Pete Beach Florida -Virtual.

### **Extended abstract**

No other field of management has had such a vital impact on the modern and technologically driven society than marketing. However, marketing scholars and practitioners observe that the capabilities that drive marketing in the contemporary era of complexity are not driven by a

profound theory derived from marketing, but moreover by the rise of AI. We propose a theoretical framework of a “Design Weltanschauung” (DWA). Hence, AI leverages marketing strategies as well as customer analysis. While many agree upon the importance of AI, some see AI as a panacea for solving future marketing problems. We want to create a roadmap that leads to a well-balanced use of AI in marketing. We will first take some glamour of AI by “downsizing” it to Machine Learning (ML). Hence, most AI applications are designed for only a limited amount of problem-solving sets. The DWA framework is designed to be implementable and which can leverage marketing theory by substantiating a solid path towards a rapprochement between marketing and modern AI approaches.

**Keywords:** Marketing theory, artificial intelligence, machine learning, design, design Weltanschauung

### **Key Contributions to Academe and Practitioners**

DWA as a meta-model for marketing theory and its application for a holistic marketing practice delivers normative robustness for the firm by constructing a model of adequate response beyond the reductionism of silo thinking. Marketing scholars seek a foundational framework to cope with the rising complexity of managing data, the sustainability-driven global shift in consumers behaviour and marketing-driven integration of AI tools. Within the dimension of DWA, marketing could evolve towards a holistic foundation, wherein many fields are put into a designerly context of observing the possible synergies of many fields of sciences as philosophy, semantics, ethics, aesthetics, physics, mathematics, statistics, robotics and computer science. These sciences are integrated to establish the firm’s viability in a disrupting global and digital environment. Practitioners can decode the weak signals of the wider market and design favourable marketing strategies. Holistic thinking in marketing embraces disruption as a powerful motor to proactively designing non-linear consumer-experience-spaces, beyond the purely transactionary modus operandi of marketing of the past. Therefore, we suggest observing



marketing from the lenses of design instead of a pure economics lens. While economics connects the actors in a transactional mode of interaction, DWA within the context of design delivers a wider foundation, wherein not only the diverse fields could be aligned, but moreover, a foundation for the development of a foresight-oriented marketing theory could be paved. The future in marketing depends on assimilating ML from a legitimacy driven by marketing. Scholars and practitioners have to be prepared for lifelong learning sessions in adapting the most recent AI technologies. While the age of hyper-specialization will further evolve, we deliver a theoretical framework substantiated by empirically driven examples, wherein a foundation for a holistic marketing organization is established.

### **Literature Review on Marketing**

This literature review analyses the publications in the research area of the field of marketing with a special focus on indigenous marketing theory, the existing oeuvre of Service-Dominant Logic (SDL) (Vargo and Lusch, 2004a) and the Design Dominant Logic (DDL) paradigm, introduced by Kamran *et al.* (2020). At this part, the authors aim at providing an in-depth literature review of marketing that will be of high interest for the Artificial Intelligence (AI) people. Hence, paving the way towards designing a universal model with elements of both fields which will help to cope with the rise of complexity by a model of rapprochement between marketing and AI.

Marketing is a vast field and its scope is unquestionably broad (Hunt, 2014). It includes a conglomeration of diverse subject areas such as consumer behaviour, pricing, purchasing, sales management, product management, marketing communications, comparative marketing, social marketing, the efficiency/productivity of marketing systems, marketing ethics, the role of marketing in economic development, packaging, channels of distribution, relationship marketing, marketing research, international marketing, algorithmic marketing, brand equity, commodity marketing, and physical distribution of artefacts and services (Hunt, 2014). Even

though the list of the diverse subject areas could continue, some scholars argue that several subject areas mentioned above do not belong under the general marketing rubric. In the fall conference of 1972 at the American Marketing Association (AMA), Philip Kotler made some comments concerning the classification of marketing phenomena by using the concepts of micro, macro, normative, and the notion of positive (Kotler, 1972). Constructing on Kotler, Hunt (1976) designed a model of the scope of marketing, which he presented in his famous article under the title, “The Nature and Scope of Marketing” (Hunt, 1976), and which is contemporarily known as the three dichotomies model (TDM). This was considered as one of the most provocative and influential articles ever written in marketing as the TDM stirred up much debate and received much attention from top scholars in marketing who commented and published evaluative papers on Hunt’s model for a long time (Arndt, 1982). Hunt has designed the TDM of marketing in a way that the entire scope of the marketing field including all phenomena, problems, issues, theories, perspectives, and models can be categorized and analysed by simply following the three established dichotomies: 1) positive/normative; 2) micro/macro, and 3) profit/non-profit (Hunt, 1976).

Inspired from Kotler’s presentation at the fall conference of AMA, and the dimensions of Hunt’s TDM, Arndt decided to contribute with a critical paper where he evaluates the model and produces a simplified version of it, which is illustrated in the table below in Table. While there are many similarities between both models, Arndt has different labels of the dimensions, however, the yield

$2 \times 2 \times 2 = 8$  classes or cells in the schema stays the same (Arndt, 1982).

**Table 1: Describing the Dimensions of Hunt's Three Dichotomies Model of Marketing**

Dimensions	Categories	Definitions (From Hunt 1976b, [1.p. 20])
<b>Focus of analysis</b>	Positive	Adoption of "the perspective of attempting to describe, explain, and understand the marketing activities, processes, and phenomena that actually exist. This perspective examines what is."
	Normative	Adoption of "the perspective of attempting to prescribe what marketing organizations and individuals ought to do or what kinds of marketing systems a society ought to have. That is, this perspective examines what ought to be and what organizations and individuals ought to do."
<b>Level of aggregation</b>	Micro	"Marketing activities of individual units, normally individual organizations (firms) and consumers or households."
	Macro	Marketing activities at "a higher level of aggregation, usually marketing systems or groups of consumers."
	Profit	"Profit sector encompasses the study and activities of organizations or other entities whose stated objectives include the realisation of profit."

<b>Objectives of organisations or other entities</b>	Non-profit	Also applicable are studies that adopt the perspective of profit-oriented organizations."  "Conversely, the non-profit sector encompasses the study and perspective of all organizations and entities whose stated objectives do not include the realisation of profit."
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The elegant symmetry and simplicity of the model have made it very appealing and since its introduction, it has been very useful for university teaching as scholars like Arndt have claimed that they have used the model to explain the scope of marketing in a meaningful way to many marketing students (Arndt, 1982).

As one can understand from the model presented in Table and to complete his model, Hunt added the profit/non-profit categories and by developing the operational definitions of the categories into his model. After completion, the model managed to gain acceptance among marketing educators. Hence, becoming a classical reference concerning the scope of marketing (Arndt, 1982).

Each one of the six categories is defined and interpreted by Hunt and his inspiration after Kotler. However, for the Macro category, a multidimensional perspective has been adopted by the Journal of Macromarketing (Fisk and Nason, 1982). "Macromarketing should (must) refer to the study of marketing systems, the impact of marketing systems on society, and the impact of the society on marketing systems." He even lists three criteria that set up the multidimensional perspective of the Macro category where he states that: "Criterion (1) is a level of aggregation criterion that allows the inclusion of topics such as comparative marketing, the institutional structure of marketing, and relationships in channels of distribution. Criterion (2) is a generalized "interests of society" criterion that brings in topics such as "social responsibilities"

and the role of marketing in economic development. Criterion (3) recognizes that society impacts on marketing and would include such topics as the legal aspects of marketing and the consequences for marketing of different political and social value systems.” (Fisk and Nason, 1982).

Regarding the conceptual status of the model, in his initial article, Hunt (1976) coined his construction as a “conceptual model of the scope of marketing” and a “schema”, whereas, in other writings, he has also used the term “taxonomical schema” (Hunt, 1977). In another contribution a year later (Hunt, 1978) he even coined his construction as a “general paradigm of marketing”. However, since paradigms tend to refer to examples of scientific activity, examples including law, theory and application, and instrumentation together (Kuhn, 2012), therefore, it is clear that Hunt’s model cannot be labelled and observed as a “paradigm” or a “general paradigm” within marketing theory. According to Arndt (1982), Hunt’s model is not a theory and does not purport to be one, neither it is a definition of marketing. Hence, by taking into account Hunt’s criteria, it can be claimed that the TDM is a “classificational schema”, which according to Hunt itself, it is a device for portioning some universe of elements or statements into homogenous groups (Hunt, 1976).

Looking at the pivotal early (the 1920s) approaches of marketing one can say that a large portion of them reside in the profit/macro/positive perspective (Hunt, 2014). Thus, indicating that marketing’s main aim was merely focusing on the institutional commodity, and functional approaches that typically analysed the existing business activities from a marketing systems’ perspective. However, some studies had a slightly different approach with a profit/macro/normative perspective such as Weld (1920), where he examined existing distribution systems for farm commodities and attempted to evaluate normative issues (Weld, 1920). In addition, there was also work that combined the profit/macro/positive and the profit/macro/normative perspectives such as (Stewart and Dewhurst, 1939; Borden, 1942) and

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(Cox *et al.*, 1965). Hence, implying that regardless of the early stages, a convergence of diverse opinions from scholars and their ideas were circulating. Moving forward, in the early 1960s, the managerial approach to marketing (McCarthy, 1960) evolved into a perspective where the marketing manager often would be positioned within a manufacturing corporation, where the emphasis is micro and in the profit sector (Hunt, 2014). This managerial approach consisted of three main questions: (1) What is the optimal marketing mix? (2) What segments should be targeted? (3) How should customer relationships be managed? Hence, in addition to the micro and profit dimension, it also contained the normative perspective. Furthermore, a systems approach to marketing with a profit/micro/normative perspective, consisting of optimizing models such as linear and dynamic programming, was introduced in the mid-1960s from Lazer and Kelly (1962), Adler (1967) and Fisk (1967). Some writers were using the systems approach in a profit/macro/positive sense to analyse complex interactions among marketing institutions, and others were using it to include the profit/macro/normative (Hunt, 2014). Major historical developments took place between the years 1955-1975 in the field of marketing with Alderson, who led towards a pragmatic shift within marketing by introducing three essential changes, (1) focus from macro to micro-distribution, (2) moving forward from the purely economic lens *Weltanschauung* towards a broader integration of behavioural sciences, and (3) advancing towards a theory-building shift within the field and focusing less on description and classification dimensions (Shaw and Jones, 2005). Another affirmative contribution in the mid-1960s was Fisk's book where he uses a method called the general systems approach and examines the goals, organization, inputs, and outputs of marketing to determine the efficiency and effectiveness of marketing in an organizational setting (Fisk, 1967). In the last few years of 1960s, the scene was dominated by Holloway and Hancock (1964; 1968) and Scott and Marks (1968) with their environmental approach which they promulgated to marketing without leaving aside consumer behaviour, culture, competition, legal framework, technology, and the institutional framework. Hence, falling under the profit/macro/positive perspective one more

time. As the years passed by, societal issues and social marketing emerged as trends in the 1970s as a result of an increase of the significance of social responsibility, ethics, and a general environmental awareness. The first trend that surfaced was social marketing (Kotler, 1972). Social marketing's main ontology was the problem of non-profit organizations; hence, it is considered as non-profit/micro/normative, whereas the second trend, societal issues, concerned topics such as consumerism, ethics, marketing and ecology, and other socially-responsible related topics. Therefore, it should be viewed as profit/macro/normative or non-profit/macro/normative.

Edging towards the modern era of marketing, Vargo and Lusch have identified seven research streams that emerged in the 1980s and continue through the 2000s (Hunt, 2014). These seven streams view marketing as a social and economic process. The research streams have been inspired by top scholars after research conducted by Vargo and Lusch (2004a).

1. Market Orientation – *“leads to a cohesive product focus, clear leadership, better coordination of sales activities, much better job of reviewing products from a worldwide basis, help in terms of differentiation.”* (Kohli and Jaworski, 1990)
2. Services Marketing – the more the organization moves towards the right marketing strategy continuum, away from a transaction-type situation, the more the market offer expands beyond the core product as an exchange of information is imminent (Grönroos, 1994; Parasuraman *et al.*, 1988). Hence resulting in a slow establishment of a relationship with the customer by adding elements of services within the relationship.
3. Relationship Marketing – although there are various definitions and perceptions regarding relationship marketing, one common element is that all agree on its increasing relevance and that firms are competing through developing stable relationships with their stakeholders (Gummesson, 1994, 2002; Morgan and Hunt, 1994). As stated in Hunt's book *“to be an*

*effective competitor in the global economy, requires one to be an effective co-operator in some network” (Hunt, 2014).*

4. Quality Management – a pivotal framework coined “House of Quality” designed for quality management and support for the management for making the right decisions in multiple spheres within the business (Hauser and Clausing, 1988).
5. Value and Supply-Chain Management – it is difficult to create value by simply positioning a fixed set of activities along the value chain in today’s rapid-changing environment. Therefore, the key strategic task is to reconfigure and reorganise roles and relationships among suppliers, partners, and customers, hence, mobilizing the creation of value by new combinations of players (Normann and Ramirez, 1993; Srivastava *et al.*, 1999)
6. Resource Management – the resource advantage theory designed by Hunt and Morgan (1996) explains firm diversity, the differences between market-based and command economies on the dimensions of productivity, quality, and innovation. It is genuinely dynamic and provides a theoretical foundation for endogenous growth models (Hunt and Morgan, 1996; Constantin and Lusch, 1994).
7. Network Analysis – the organisation is the locus of rapid change and evolution, in an environment where there are three dominant characteristics: “(1) more and increasing diversity, (2) more and increasing knowledge, and (3) more and increasing turbulence” (Achrol, 1991). A typical marketing organisation serve as organizing hubs of complex networks as a part of a functionally specialized firm (Achrol, 1991).

The world has been exponentially moving towards a complexity-based paradigm shift and traditional marketing is facing major difficulties to provide organizations with an innovative and pragmatic framework within the new hyper-connected and globally intertwined market spheres of cyber-physical realities of today (Kamran *et al.*, 2020). According to Vargo and

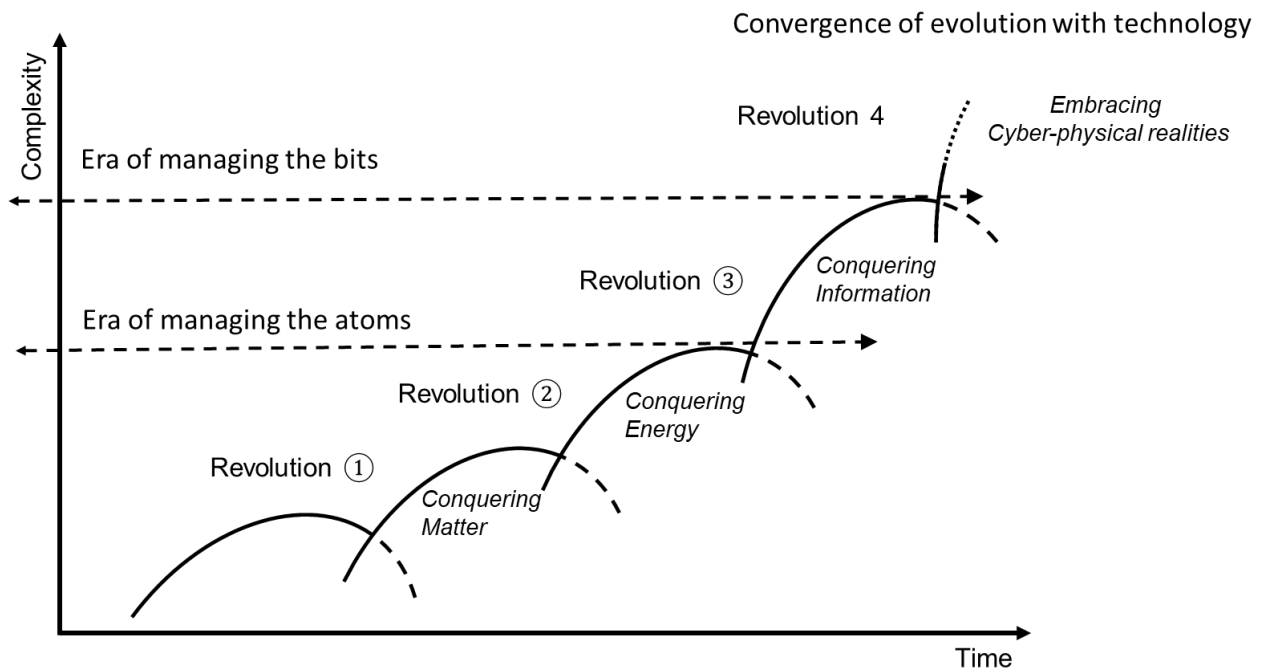


Lusch and their foresight, marketing should shift towards an S-D logic, in seeking for value which is generated through the process of co-creation with the consumer (Vargo and Lusch, 2004a).

### **The Service-dominant logic lens**

The emergence of market complexities in an environment that has been exponentially advancing towards a complexity-based paradigm shift has brought in the spotlight the limitations of traditional marketing in the need for establishing an innovative and pragmatic framework within the new environment (Kamran *et al.*, 2020). The world of the twenty-first century requires marketing to be more service-centred, where service is rendered based on co-creation of the dynamic capabilities of multiple firms working in concert through the design of competitive global value chains (GVCs) (Kamran *et al.*, 2020). Pivotal revolutions have taken place in marketing during different periods. There are four key revolutions and advancements that were made in the field of marketing which is closely linked with the evolutions of the human societies (Kamran *et al.*, 2020) as illustrated in Figure.

The need for developments within marketing theory of the contemporary era must integrate more complex and holistic scientific pillars, beyond the inherited logic of pure economics and later psychological sciences as the only regimes, whereupon marketing has relied on. Hence, in Figure the illustration of the evolution of human societies and the state of current affairs, where marketing has been challenged by the new world of transition from managing the atoms towards managing the bits, is demonstrated.



**Figure 1: Defining the Many Revolutions within the History of Technological Developments in Marketing from Managing the Atoms towards Managing the Bits.**

1. Conquering matter – it all started with the simple things such as man’s control over basic resources (water, fire, wood, and stones)
2. Conquering energy – as advancements were made, the control was expanded, resulting in man’s control over energy resources such as steam, coal, fossil, fuel, and nuclear power.
3. Conquering information – the era we are still living in, where technology is key and the development of cyberspace, computer science, AI and Data Science, virtual realities, internet of things (IoT), and the rise of smart machines are becoming pivotal towards managing complexity
4. Embracing cyber-physical realities – where the barriers between realities divided so far in cyber and physical will disappear, hence, furtherly advancing towards a unified reality from which firms’ survival for operating within this emerging new reality is essential.

The majority of the traditional marketing theories have been constructed by capturing the realities within the era of managing the atoms. Hence, implying that most of the development within marketing theory has been done based on the logic of “*click or mortar*” environments. This is an indication that sufficient areas for new marketing theories in the era of cyber-physical realities and AI exist. In this age, the need to respond in real-time to emerging complexities and other factors which directly affect the firms’ marketing success is pivotal.

Kamran et al, 2020 have observed, four key trends that are dominating and influencing marketing today. These dominant trends that have become pivotal for marketers and marketing firms, which need to embrace them to be able to design solid and effective frameworks and strategies for a sustainable and healthy growth and thus their organizational homeostasis:

1. The rise of AI
2. The Rise of a global sustainability movement
3. The need for a ubiquitous response to the complexities, crises and shifts within the fabrics of the converged global societies

The bounded rationality within transitional marketing that is still occupied with the vanished world of an atomistic universe in a data-driven complexity of totality (Kamran, 2020)

For Vargo and Lusch (2004), marketing should shift toward a Service dominant logic (SDL) and become even more customer-centric, market-driven, and services-centred. As they furtherly observe: “value is defined by and co-created in concert with the consumer” (Vargo and Lusch, 2004a). The SDL initially constructed, had eight foundational premises (FP) when it was firstly launched in 2004, and then two additional premises were adopted within the framework in 2008. The existing original FPs have also been updated and modified by its authors. These are defined below in the following manner:

- FP1: Service is the fundamental basis of exchange – indicating that the application of knowledge and skills known as operant resources is the basis for all exchange. “*Service is exchanged for service*” (Vargo and Lusch, 2004a)
- FP2: Indirect exchange masks the fundamental basis of exchange – meaning that the service basis is not always apparent as service is provided through a complex combination of goods, money, and institutions.
- FP3: Goods are a distribution mechanism for service provision – durable and non-durable goods derive their value through utilization and the service they provide for the customer.
- FP4: Operant resources are the fundamental source of competitive advantage – the ability to cause desired change triggers competition and the main source of competitive advantage is the set of knowledge and skills of the organization.
- FP5: All economies are service economies – due to a rapid increase in specialization and outsourcing, economies are becoming more and more service-oriented and service is becoming apparent.
- FP6: The customer is always a co-creator of value – another key indicator that value and its creation is interactional,
- FP7: The enterprise cannot deliver value, but only offer value propositions – hence, indicating that enterprises can offer their applied resources for value creation and interactively create value by following acceptance of value propositions. However, it could not create or deliver value in an independent way.
- FP8: A service-centred view is inherently customer oriented and relational – since service is defined in terms of a customer-determined benefit and co-creation is customer-oriented and relational.

- FP9: All social and economic actors are resource integrators – indicating that the context of value creation is networks of networks.
- FP10: Value is always uniquely and phenomenologically determined by the beneficiary – Vargo and Lusch view value as idiosyncratic, experiential, contextual, and meaning-laden (Vargo and Lusch, 2008c, 2008a).

The ten FPs that Vargo and Lusch have constructed within the SDL during the years strongly imply that SDL has still not been able to convert towards transcendence of becoming a theory, instead, it is a mindset an, a lens through which one can view the social and economic exchange phenomena and potentially see more clearly. The SDL positions at the pre-theoretic, paradigm level, but it can evolve into a general marketing theory in the future if used in a more specific way which requires focus on particular issues related specifically to marketing (Vargo and Lusch, 2008b). SDL in general is viewed as a basis for a reorientation of theories of society and economic science. Even though this may look like an ambitious evaluation, we have to keep in mind that for its first one hundred years, marketing has largely borrowed most of its core concepts, theories, and models from other disciplines and it still does (Hunt, 2020). Vargo and Lusch (2008b) observe that it is time that marketing, from its somewhat unique, market-centred dimension, contribute more towards a general understanding of value creation and exchange processes seen from an institutional resources' integration perspective. This major objective is also in line with Alderson's claims in 1957 where he observed that: "What is needed is not an interpretation of the utility created by marketing but a marketing interpretation of the whole process of creating utility." (Alderson, 1957).

1. Traditional marketing merely focuses on natural resources and goods of the firm (known as operand resources). As a result, the goods-centred view postulates: The purpose of economic activity is to produce and distribute goods that can be sold

2. For the goods to be sold, they must be embedded with utility and value during the production and distribution processes and must offer more value than the rival products to the customer
3. It is beneficial that the firm sets its decision variables at a level that allows it to maximize the profit from the sale of output.
4. To achieve maximum control and efficiency and production, the goods must be produced and standardized away from the market.
5. Finally, the goods can be stocked until demanded for delivery (Vargo and Lusch, 2004a). Analysing these five purposes one can easily understand that traditional marketing was concerned merely with agricultural products and physical goods. Hence, it was compatible with its rudimentary view.

On the other hand, the service-centred view which is inspired on Alderson's call (Alderson 1957, p.69), suggests that marketing is a continuous series of social and economic processes that is largely focused on operant resources with which the firm is constantly targeting better value propositions than its rivals (Vargo and Lusch, 2004a). Different to the goods-centred view, the service-centred view can be stated as follows:

1. Identifying and developing core competencies – the fundamental knowledge and skills of a firm that represent a sustainable competitive advantage (Prahalad and Hamel, 1997)
2. Identifying potential customers that could benefit from the firm's core competencies
3. Cultivating relationships with the customers and involving them in the process of product or service design, hence, competitively compelling value propositions to meet specific requirements
4. Constantly seeking feedback from the customers to identify the gaps for improvement and value co-creation. The author believes that the development of this new logic and this advancement from a goods-centred view towards a service-centred view has been

pivotal in the history of the development of modern marketing. Building on this logic, another affirmative conceptualization of a new modern marketing logic has been developed by Kamran et al (2020), who coined it a Design-Dominant Logic (DDL).

### **Design-Dominant Logic**

The authors of this new logic construct upon a theory-enhancing path towards a DDL by agreeing consistently with the accomplishments of the SDL framework and the necessity of establishing the solid differences between the goods-centred view and service-centred view of the marketing logic. Kamran et al (2020) observe that... “the reoccurring themes within the SDL framework fall short of enhancing the theoretical-practical accomplishment beyond the original publication (Vargo and Lusch 2004), hence, the notion of the evolving logic remains to the degree that a new paradigm shift in marketing due to the vital technological developments and the holistic nature of the value chains within the field, would require a robust design that could align the diverse fields in a unified way. This observation suggests that the new logic guides marketing towards the lenses of design instead of pure economics, hence, aiming to achieve a solid foundation of alignment to be absorbed for all the diverse trends affecting marketing of the contemporary era. The main driver for this logic is the authors' observation that economics connects the actors in a transactional mode of interaction, whereas design delivers a holistic foundation, wherein not only diverse fields could be aligned, but moreover, a foundation for the development of marketing theory for the contemporary era could be paved (Kamran *et al.*, 2020). The authors view the notion of service as an output of the organizational system, whereas the SDL views actors as resource-integrating entities. The gap within the SDL according to Kamran *et al.* (2020) lays in the further explanation of co-evolving marketing and disrupting phenomena beyond the notion of co-creation. It is precisely this gap which by the emergence of DDL has been addressed. Hence, the DDL advances the notion of “co-creation” towards the dimension of “co-evolution”, wherein the marketing spectrum based on the self-

organization of the actors brings forth additional windows of opportunities that may not be foreseen *avant la lettre* and at the time of the design of the cyber-physical organizational embodiment (platform), which we coin as the “marketing within” foundation. The DDL framework also divides the transition of diverse lenses of marketing into four eras, by using the normative, strategic, and operations approach inspired by (Schwaninger, 2000a).

The operational logic captures the economic performance dimensions, whereas the strategic logic evaluates the essence of how a firm can survive. On the other hand, once the economic constraints are met, the normative dimension is concerned with, whether the firm is aware and pro-actively constructs a ubiquitous value-laden assessment of its purpose. The traditional marketing era started with the notion of matter in motion, hence, the main objective was to bring the goods to the market and selling them through a unique sales proposition (USP) *modus operandi*. While, the next frontier in marketing was the managerial logic, which set-forth the foundation towards knowing the best consumers’ perception of value. Thus, advancing the focus toward the customers’ perception of value and trying to know the customers better. The next era was observed as the service-centred marketing paradigm, wherein the emergence of the SDL re-shifted the focus once again toward the customer by empowering the customer through a much larger involvement in the product or service creation process, thus, co-creating value for both the organization and the customer. In terms of shifting the foundational premise of marketing from exchange towards co-creation in terms of the market with the consumer. While the DDL perceives actors to align themselves within the spectrum of a “co-evolving” and self-organizing foundation of a unique design proposition (UDP), thus by transcending the co-creational meaning space towards a new joint design search space, wherein the marketing relations are extended towards the evolutionary phenomenon and wherein actors’ are engaged in a co-designing foundation of the “self-actualizing cyber-physical space reality” of the “market(ing)- within” the design possibilities a firm provides. Having stated that, one can create the idea that DDL provides an alignment between all the essential dimensions that a firm

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requires to cope with, within the turbulent environment and global disruptions of the future. An affirmative example would be the high-tech companies like Apple, Samsung, and Google Inc., and the path towards designing a unique design experience, which in other words is an evolution towards a global consumer attraction force that is a key transcendence from the pure product development and linear customer relationships (Kamran *et al.*, 2020).

The key difference to the main update that has been added to the SDL by the emergence of DDL is the basis on a three-dimensional connection between the firm and the customer. Hence, indicating that the engagement between the firm and the customer is much more dynamic and interactional. The Design Weltanschauung (DWA), which is based upon three spectrums of preservation, ambidexterity, and transformation is a foundational premise upon which DDL is constructed. Thus, DDL is all about the meaningfulness that the firm brings to the customer and vice versa, on the other hand, the SDL is more resource-oriented and does not provide sufficient holistic spectrums and dimensions. Firms e.g. Netflix delivers an affirmative example, they didn't start creating content or operating cinemas, they disrupted the industry with their "all in one" approach by changing the very nature of "movies" as a product and how they are consumed, and this can be thoroughly explained by the DDL framework. As a result, Netflix is now a data science expert company, an expert of creating local content, and the number one entertaining platform in the world. All of these dimensions have been achieved by integrating the customer, not based on a "market with" but more based on "market-within", where the firms give so many possibilities for the customer so that the customers can proceed towards their own dimensions of self-actualization, thus co-evolving simultaneously with the company.

The constant rise of complexity and the rapid development of technology has formed a conglomeration of competition-related problems which require much faster responses and a proactive management system. Even after the emergence of the SDL and DDL, the marketing field still needs a universal model or theory to cope with the new complex phenomenon in the

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21<sup>st</sup> century. The DDL is designed as an upgrade within contemporary marketing theory and it provides a solid foundation for marketing to cope with the rising complexity, we still may have to observe and study the possibility of a model with elements of AI and Data Science that will bridge the field of marketing and AI. A universal model which will be able to self-actualize and update itself. while inviting the customer to do the same.

### **The Contemporary Role of AI in Marketing**

*“AI is going to make our lives better in the future”* – Mark Zuckerberg, CEO, Facebook

In the future, AI is likely going to substantially change both marketing strategies and customer behaviours (Davenport *et al.*, 2020b). Table describes some interesting AI applications in different industries and companies and illustrates the potential impact that these applications have had or may have in the future in particular industries and customer behaviour. It is fascinating to see the level of AI that is currently being applied and the strong impact that it is having in almost every industry and most importantly in most of our lives.

**Table 2: Describing the Diverse AI Applications**

<b>Application of AI</b>	<b>Description</b>
<b>AI in driverless cars (e.g. Tesla)</b>	In the future, AI-enabled cars will be able to complete journeys without any drivers' input. It is interesting to see how this will impact the insurance and taxi industries, as well as customer behaviour.
<b>Online retailing AI (e.g. Birchbox)</b>	With AI assistance, better predictions on customer tastes and preferences will be possible, which may push companies from a shopping-then-shipping business model towards a shipping-then-shopping approach.
<b>Fashion-related AI (e.g. Stitch Fix)</b>	AI applications that support stylists in terms of analysis of numeric and image/other non-numeric data.
<b>Sales AI (e.g. Conversica)</b>	AI bots are now capable of fully executing and completing a sales process.
<b>Customer service robots (e.g. Rock'em and Sock'em)</b>	Robots can answer simple customer questions automatically (e.g. how to make a cocktail).
<b>Emotional support AI (e.g. Replika)</b>	It is possible to communicate with a robot for emotional support purposes.
<b>In-car AI (e.g. Affectiva)</b>	It analyses various driver data such as facial expression and tiredness to evaluate drivers' emotional and cognitive states.
<b>Customer screening AI (e.g. Kanetix)</b>	It is possible to identify customers who should be provided incentives to buy insurance and avoid the ones who are unlikely to buy.
<b>Business process AI (e.g. IBM Interact)</b>	This is used for multiple applications such as customized offers (e.g. Bank of Montreal)
<b>Retail store AI (e.g. Café X, LoweBot, Bossa Nova)</b>	Robots that can serve coffee and perform barista tasks, as well as respond to simple customer requests.

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<b>Security AI (e.g. Knightscope's K5)</b>	Security robots patrol designed for offices or malls, equipped with superior sensing capabilities.
<b>Spiritual support AI (e.g. Bless U-2)</b>	Customizable robots capable of offering blessings in different ways and languages.
<b>Companion robot AI (e.g. Harmony from Realbotix)</b>	A customizable robot which tends to help reduce loneliness.

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AI, in essence, is about designing an autonomous intelligent system that enhances the human condition. It is therefore essential to understand intelligence *avant la lettre*. before embarking on the journey of defining AI.

### **The Design Weltanschauung of Marketing**

Marketing's *raison d'être* has shifted from the boundaries of a purely "transactional mass-marketing"-market understanding towards being a field of essential and vital societal implications. The contemporary dimension of thought in marketing needs to meet the evolution of the emergent designerly co-created cyber-physical-service-economy (Kamran *et al.*, 2020). The global sustainability mindset held by the consumers delivers many additional aspects that go beyond the dimensions of rational economics driven by price or other short-term stimuli, towards embracing many additional values. The contemporary valid definition of marketing gives scholars and practitioners some solid points of departures to look into meaningful innovative search spaces of high impact:

"Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (AMA, 2017).

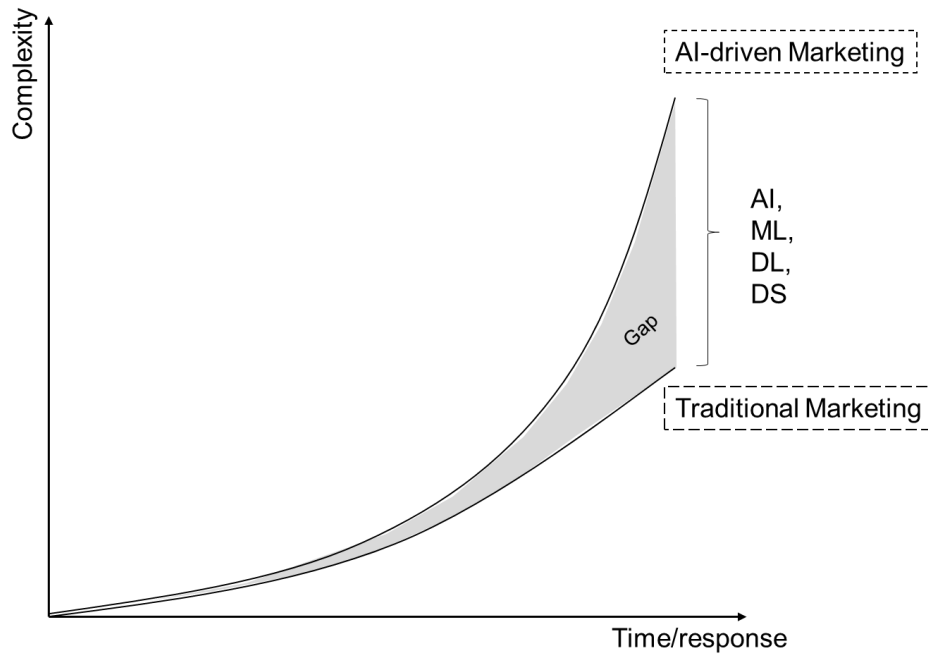
Marketing thus is founded by conducting three jobs concurrently. The notion of “creating an artefact” as the first job is the foundational activity and which embraces the holistic framework of a value defining apperception for all stakeholders such as firm, customer and society at large. Here not only creating the artefact (product/services, henceforth referred to as service) whereby the fulfilment of a job is rendered (Christensen *et al.*, 2016c) is a foundational design activity, but moreover, the dimensions of communicating and delivering value could also be regarded as vital areas of a designerly way of firms interacting with the market.

The hyper-connected and globalized world is moving rapidly towards very complex realities. The challenges that firms must cope with are not only severe but also their impact is highly disruptive. Marketing firms are much in need of an adequate response to the rapidly emerging changes in the shortest amount of time. While marketing was founded within the boundaries of physical product productions, more enhanced theories as Service-Dominant Logic (SDL) and a marketing reality, driven by the AI developments, have emerged. Marketing is thus a bridge for a well-founded rapprochement between the era of managing the atoms to managing the bits.

Among the most prominent shifts affecting marketing theory in the future is the whole AI movement as the holistic embodiment of the contemporary socio-technical evolution of the “digital turn”.

Figure displays within the foundations created above, the gap between traditional marketing and where the technological developments based on AI have been exponentially diverging and which have challenged traditional marketing. Here we recall the foundational proposition of Alderson, which remains unanswered, hence the field has to create a marketing interpretation of the whole process of value creation (Alderson, 1957; Dixon, 1990). Alderson’s call cannot be introduced within marketing theory dominated by the age of AI, without a convergence of marketing with the field of computer science, which is led by a solid marketing foundation and not to be overwhelmed by AI, where marketing needs to make retreating concessions.

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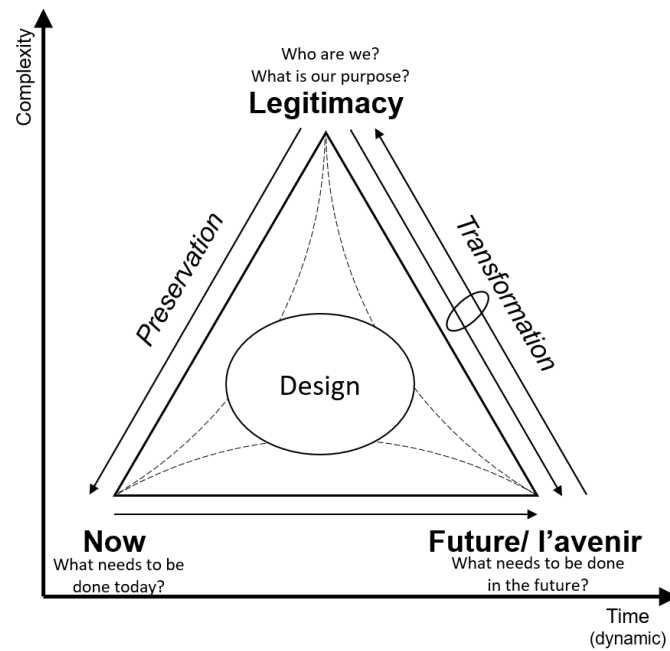
**Figure 2: Illustrating the Emergence of the gap between a traditional and AI-driven marketing reality.**

Within contemporary scholarship, a vital fulfilment of this need has been sensed, wherein the design of marketing interpretation of AI, ML, Deep Learning (DL) and their integration for interpreting the emerging new and complex world has taken a pivotal role. However, the AI-driven developments are combined with additional multipliers, which have much challenged traditional marketing. To take an empirical example: firms as Apple have displayed that a solid organizational platform upon which all the core competencies of an organization can be mobilized to meet the newest technological possibilities, is called Design with a big “D” (Archer *et al.*, 2005; Archer, 1979). Hence for Apple design has been a systemic foundation of integrating all the necessaries dimensions such as an ambitious vision, product aesthetics and industrial design, quality, material sciences, internal-driven software developments, cyber-physical marketing capabilities and superb execution. While Apple did not only apply this strategy towards a single industry such as the mobile phones by producing the iPhone, he was essentially able to apply and repeat the same strategy to animation movies (Pixar) and the music industry. Furthermore, this notion was applied to a man-machine interface by changing the

whole relationship of this generation with technology by aesthetically combining hardware and software produced by a single firm. The launching power of the apps' economy, whereby the evolutionary forces of self-organizing app-reneurs and app-developers have had societal changing implications in all the aspects of our lives, is another solid example of this strategy.

Within the constructed logic above, we would like to propose the application of design as the third pillar of human knowing besides arts and sciences (Simon, 1962, 1969; Archer *et al.*, 2005; Archer, 1979) to confront the gap, wherein the whole AI-movement as the holistic embodiment of the "digital turn" can be based on possible fruitful grounds. Hence, designerly interacting with the environment is the pivotal activity of marketing, especially within the disrupting times of today. We propose the normative model of organizational embodiment called the Design Weltanschauung (DWA) (Kamran *et al.*, 2020) as the logic of synthesis towards a holistic model of a rapprochement between marketing and AI. DWA asks three essential questions that each marketing scholar and practitioner need to ask her/his organization:

1. What is our firms' legitimacy and raison d'être, who are we, what is our purpose?
2. How can we manage the firms' existing priorities within the time window of today "now" and within the internal organizational capabilities point of view?
3. What needs to be created in the future, that we need to start the transformation process today?



**Figure 3:** Illustrating the Design Weltanschauungs Model

**Source:** Kamran *et al.* (2020)

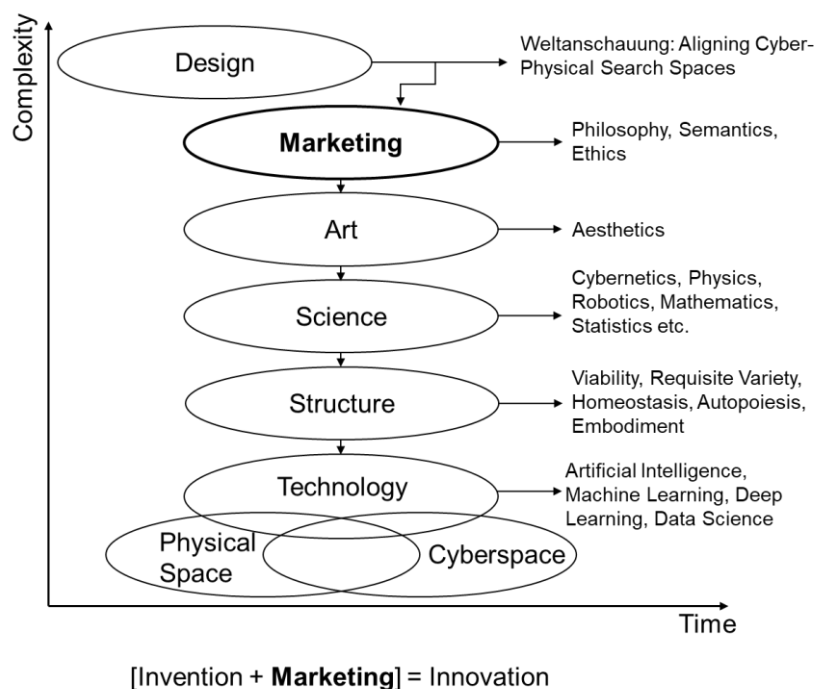
Constructing on Derrida, who stated: “In general, I try to distinguish between what one calls the future and ‘l’avenir.’ The future is that which – tomorrow, later, next century – will be. There’s a future that is predictable, programmed, scheduled, foreseeable. But there is a future, l’avenir (to come), which refers to opportunity or threat, which comes, and its arrival is totally unexpected” (Dick *et al.*, 2005). For the contemporary theorists of marketing, the dimension of DWA can establish a boost in their capabilities. Additionally, by enhancing the boundaries of better communication and designing organizational resilience in delivery (e.g. operations, logistics), the essence of a sustainable competitive advantage can be realized. This notion of a solid “differentiation” by the structural organizational design capabilities has distinguished Amazon from Sears, or Netflix from Blockbuster or Apple to Nokia, Research in Motion and Motorola.

Figure below displays the foundations of the DWA, where firms can navigate the turbulent markets within the dimensions of 1) “preserving” the legitimacy of the firms' ethos, while 2) “transforming” the organizational raison d’être by the structural dynamics of the firms’



ambidextrous embodiment, thus exploiting opportunities within the time frames of today, while exploring the capabilities that are essential for the future survival of the firm (O'Reilly III and Tushman, 2008).

Figure illustrates, how designerly-based marketing via a possible application of DWA- model can be postulated, thus, the hyper-digitally driven markets are bending towards complexity within the pivot of the “digital turn”. With an ever reducing “dynamic of responsiveness in time” for organizations to attenuate the rapidly changing complexity of the global environments, more robust models of ubiquitous control need to be designed. Special attention is given to already established philosophical and artistic foundation that define marketing from a designerly way of inquiry. Furthermore, the integration of diverse fields of sciences with an understanding of organizational structure is illustrated. In many organizations, the notion of structural dynamics is left to chance or either based on a bureaucratic family tree or this essential aspect is considered as a given, which is a vital source of failure.



**Figure 4:** Describing a Possible Application of DWA Based on a Systemic Integration of Diverse Fields of Science.

**Source:** Kamran *et al.* (2020), extended

The additional triad constructed upon an understanding of the essence of technology, the dimension of the cyberspace combined with vital physical space capabilities, which are demonstrated, are also displayed as a possible solid response towards coping with the complexities of the contemporary age.

### **Application of Theoretical Synthesis to the Problem**

The meta-model of DWA and its application deliver normative robustness for the firm by constructing a model of holistic response beyond the reductionism of silo thinking towards the holism of designerly thinking and acting. They develop a solid ground for marketing towards sustainable and marketing-driven developments within the field. Within the dimension of DWA, marketing evolves towards a holistic foundation, wherein many fields are put into a systemic integration and designerly context of observing the possible synergies of many fields of sciences as philosophy, semantics, ethics, aesthetics, cybernetics, physics, mathematics, statistics, robotics and computer science. They are integrated to establish the firm's viability in a disrupting global and digital environment. Practitioners can decode the weak signals of the wider market and design favourable marketing strategies. Holistic thinking in marketing embraces disruption as a powerful motor to proactively design non-linear consumer-experience-spaces, beyond the purely transactional modus operandi of relations. To achieve a solid foundation for all the diverse fields, we suggest observing marketing from the lenses of Design instead of pure economics. While economics connects the actors in a transactional mode of interaction, Design delivers a wider foundation, wherein not only the diverse fields could be aligned, but moreover, a foundation for the development of a foresight-oriented marketing theory could be paved.

DWA evolves marketing towards one of the major fields of business studies that have affected society beyond the notion of pure markets. Furthermore, by the application of DWA marketing evolves towards a holistic foundation, wherein many fields, which typically were not aligned

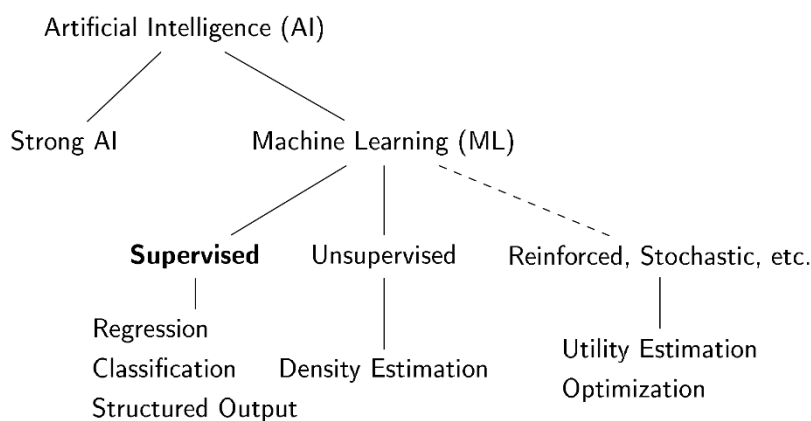
are put into a designerly context of observing the synergies of diverse fields of sciences, which could be aligned to establish the firms' viability in a disrupting global and digital environment.

### Roadmap of AI applications to change the Design Weltanschauung

#### *Definition and prerequisites of AI*

AI can substantially change the development of marketing strategies in the near future (Davenport *et al.*, 2020a). To realize the rapprochement between marketing and computer science we construct a solid understanding of the terminology of AI.

Most practitioners referring to AI rather mean the application of ML. Although there is no general definition of AI and ML, scholars agree about the differentiation between strong (SAI) and weak AI (WAI). An SAI would pass the Turing Test and would be able to mimic human-like consciousness and empathy (Turing, 1950; Searle, 1980). An SAI as of today's standards does not yet exist and researchers do not expect to discover it in the near future. Current marketing ML applications are weak forms of AI. There are two fundamental subdivisions of ML namely supervised and unsupervised learning methods (see Figure ).



**Figure 5: Illustrating an Overview of Different Machine Learning Algorithms and Differentiation Between Strong Artificial Intelligence and Weak artificial Intelligence**

Supervised learning requires clearly defined input variables a) to either forecast another dependent variable (regression), e.g. for predicting future sales or b) to label the output variable (classification), e.g. for churning customers.

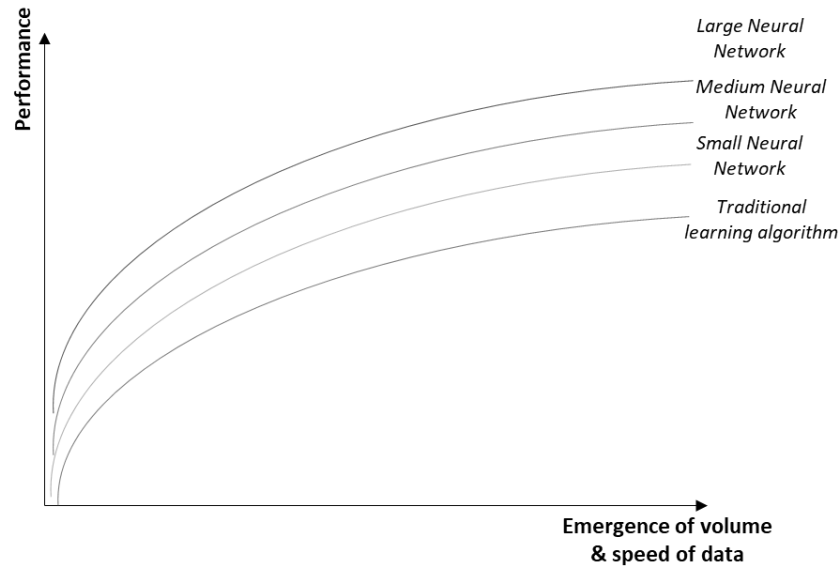
Unsupervised learning algorithms reveal structure within a dataset, e.g. instead of subdividing customers into already pre-existing labels, like churning and non-churning customers, the algorithm analyses the entire input data and automatically forms clusters or reduces the dimensionality of the input by combining variables into factors. A prominent clustering algorithm is k-Means for example. In the case of factor analysis, the Principal Component Analysis (PCA) is the predominant choice. Both solutions are easy to implement either by relying on open-source packages or commercial software distributions.

Reinforcement learning works by nudging the algorithm in form of human interaction mostly by punishment or reward actions that refine the incentive function of the ML.

Reinforcement has been prominently used in training Google's DeepMind for playing AlphaGo, a game that cannot be solved by so-called brute force methods (Silver *et al.*, 2017a; Silver *et al.*, 2017b).

Although there is no free lunch algorithm which generally beats all other ML algorithms, Artificial Neural Networks (ANN) prove to be viable for Big Data. ANNs originate to works of McCulloch and Pitts (1943) and were further formalized by Hebb (1949). ANNs try to mimic the workflow of the human brain by storing information perceived from the environment through an input layer into neurons thus creating decision weights for future actions in similar environments. With an increasing amount of data and enough computational power, DL algorithms evolved consisting of a collection of multiple ANNs. As Figure implies, the higher the amount of training data, the better the performance of ML in general. This fact corresponds to the central theorem in statistical learning (Vapnik, 1995). Moreover, traditional ML algorithms, like linear programs, or k-Means clustering, tend to flatten in performance on Big

Data while DL methods reveal its superiority among traditional methods, shallow nets (i.e. with one hidden layer of neurons) and medium neural networks (with some hidden layers).



**Figure 6:** Displaying the Amount of Data vs. Performance of Different ML Algorithms.

**Source:** Ng (2017) extended by the author

### Convergence of AI with Marketing

Brynjolfsson and McAfee (2017) see ML establishing as General Purpose Vehicles (GPV) leading to complementary innovations for processes, in all companies. As the previous section points out, most algorithms, like ANNs, require Big Data typically stemming from unstructured data, like social media accounts, customer databases, or video and image platforms. Open-source web crawlers can be used to extract data efficiently from websites. Furthermore, Text mining, Natural Language Processing (NLP) and Optical Character Recognition (OCR) can be used to transform unstructured data into structured data. The question occurs why does ML enter into marketing now? The reasons are manifold:

- i. Big Data grows exponentially.

- ii. There is enough storage and CPU capacity to store and manage Big Data. Cloud Solutions like Amazon, Google, Microsoft and Apple offer cost-efficient ways to store data and make it available to a broader community.
- iii. New algorithms (like LSTM and GANs) have been improved in terms of precision, speed and tractability.
- iv. There is a variety of open-source and commercial toolkits and bibliographies that offer ready-to-use and up-to-date ML algorithms (see Figure ).
- v. There is an increasing offer of open accessible online material like lectures, books and blogs.

Deep Learning	Generic Machine Learning	Cloud Tools	Streams
1) <i>Caffe</i>	1) <i>scikit learn</i>	1) <i>Amazon Machine Learning</i>	1) <i>Apache Flink</i>
2) <i>Neon</i>	2) <i>Spark MLlib</i>	2) <i>Google Brain</i>	
3) <i>dmlc mxnet</i>	3) <i>mlpack</i>	3) <i>intel + nervana</i>	
4) <i>Keras</i>	4) <i>Accford.net framework</i>		
5) <i>Microsoft CNTK</i>	5) <i>WEKA</i>		
6) <i>TensorFlow</i>			

**Figure 7: Illustrating the Machine Learning Applications and Tools Available as of Buxmann.**

**Source: Buxmann and Schmidt (2019)**

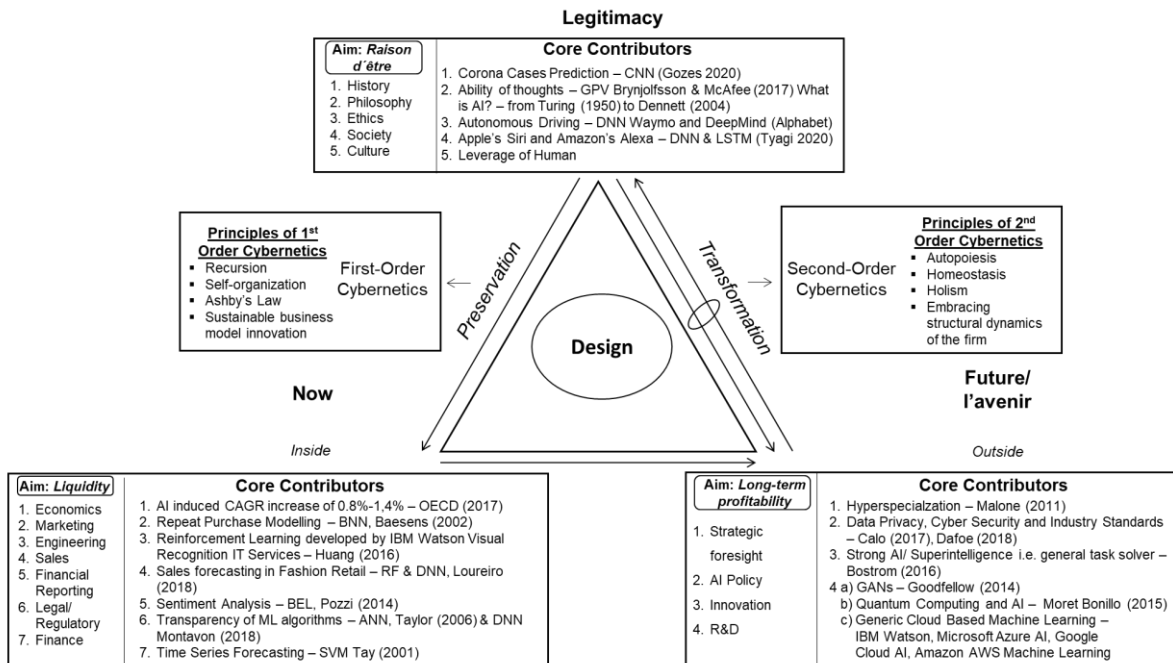
Besides this, firms like Amazon, Airbus and EA Sports offer datasets ready to be analysed by global researchers in form of online competitions held on Kaggle.

### **AI in the DWA model**

As pointed out in section 2, ML can close the gap between marketing and computer science. Therefore, we have enriched Kamran's (2020) DWA model by various state-of-the-art ML applications (see Figure ) that already contribute to the convergence.

The legitimacy of AI has already been proved in many areas, e.g. Gozes *et al.* (2020) use Convolutional Neural Networks (CNN) to develop a DL-based approach to detect, localize and

quantify the severity of COVID-19 manifestation from chest CT scans. Deep Neural Networks (DNNs) are central to Apple’s Siri or Google’s Assistant (Tyagi *et al.*, 2019). In autonomous driving, Waymo and DeepMind use DNN to train self-driving cars. But still DNNs, as a conglomerate of ANNs, are viewed as black boxes (Sjöberg *et al.*, 1995).



**Figure 8: Describing the Application of DWA Based on an Exemplary Foundation on How Many Diverse Dimensions Could Be Aligned and Applied by a Marketing Driven AI.**

As a result, the interpretability of ML algorithms stepped into regulatory focus. Taylor (2006) and Montavon *et al.* (2018) already presented methods and procedures for the verification and validation of ANNs. Calo (2017) and Dafoe (2018) set up the regulatory framework about how the future governance of AI can be achieved.

Although there is a natural fear of new technologies prevalent in our society, AI emerges in many areas. In Marketing Bayesian Neural Networks (BNN) offer a good alternative for modelling purchase incidences (Baesens *et al.*, 2002). John Deere already evaluates the extent to which cognitive AI systems such as IBM Watson provide assistance and decision support for

maintenance work of machinery and equipment (Yang *et al.*, 2016). In the fashion retail industry, Random Forest (RF) and DNNs are used to forecast sales (Loureiro *et al.*, 2018). Bayesian Ensemble Learning (BEL) has been applied to sentiment analysis (Fersini *et al.*, 2014). The future in marketing depends on assimilating ML into its *raison d'être*. Scholars and practitioners have to be prepared for lifelong learning in adapting the most recent AI technologies. As Malone *et al.* (2011) point out, an age of hyper-specialization will evolve. Among the grand variety of promising ML technologies, we see three frameworks that will affect future marketing research:

1. Generative Adversarial Nets (GANs) as proposed in Goodfellow (2014) have already been tested successfully in image recognition.
2. Recent developments in quantum computing will help to leverage the power of ML induced optimization (Moret-Bonillo, 2015).
3. Generic cloud-based solutions designed by IBM, Microsoft, Google and Amazon, offer opportunities to outsource ML tasks.

Future marketing scholars and practitioners, therefore, do not necessarily have to become computer science experts. However, it is important to have a good understanding of research design and data gathering.

## **Conclusions**

To observe the *raison d'être* of marketing coping with the disruption of today, we see the DWA as a new lens for the possible developments within marketing theory. Thus, to achieve normative robustness, we have constructed a model of convergence of traditional marketing theory with AI. The application of DWA has displayed a path in marketing with vital societal impact by integrating diverse essential fields. Firms in the future need to transcend beyond the traditional path of linear relationships towards the holism of a designerly co-created reality. Design has helped many top firms secure their competitive advantage positions. We have tried



to answer Alderson's call by designing a marketing interpretation of value-creating perception in the age of AI and have demonstrated this convergence led by marketing. We have designed a meta-model, whereupon many solid interpretations based on the needs of the practitioner could be constructed.

### **Contributions**

The Design Weltanschauung as a meta-model for marketing theory and its application for a holistic marketing practice delivers normative robustness for the firm by constructing a model of adequate response beyond the reductionism of silo thinking. Marketing scholars have sought a foundational framework to cope with the rising complexity of managing data, the sustainability-driven global shift in consumers' behaviour and marketing-driven integration of AI tools. Within the dimension of DWA, marketing could evolve towards a holistic foundation, wherein many fields are put into a designerly context of observing the possible synergies of many fields of sciences as philosophy, semantics, ethics, aesthetics, physics, mathematics, statistics, robotics and computer science. These sciences are integrated to establish the firm's viability in a disrupting global and digital environment. Practitioners can decode the weak signals of the wider market and design favourable marketing strategies. Holistic thinking in marketing embraces disruption as a powerful motor to proactively designing non-linear consumer-experience-spaces, beyond the purely transactionary modus operandi of marketing of the past. Therefore, the author has provided a foundation to observe marketing from the lenses of design instead of a pure economics lens. While economics connects the actors in a transactional mode of interaction, DWA within the context of design as the third pillar of human knowing delivers a wider foundation, wherein not only the diverse fields could be aligned, but moreover, a foundation for the development of a foresight-oriented marketing theory could be paved. The locus of innovation in contemporary marketing depends on assimilating AI (machine learning, deep learning) from a legitimacy derived and driven by marketing. Scholars

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and practitioners have to be prepared for lifelong learning sessions in adapting to the most recent AI technologies. While the age of hyper-specialization will further evolve, the author delivers a theoretical framework substantiated by observation within an empirically driven context and examples, wherein a foundation for a holistic marketing organization is established.

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## **WHAT BLABLACAR MAKES DIFFERENT FROM UBER? – A LITERATURE-BASED INVESTIGATION OF PEER-TO-PEER SHARING IN MOBILITY MARKETS**

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**Keywords:** Peer-to-Peer Sharing, Collaborative Consumption, Shared Mobility, Sharing Economy

**Description:** The conceptual paper examines peer-to-peer sharing in mobility markets and uses a systematic literature review in combination with a qualitative content analysis to inductively derive descriptive features to describe, distinguish and categorize different forms of peer-to-peer sharing.

### **EXTENDED ABSTRACT**

#### **Research Question**

The research topic sharing economy has become very popular in the last years and shared mobility, the shared use of a mode for transportation, is one of the biggest and most important industry of the worldwide sharing economy (McKinsey & Company 2017). Within this research field the concept of peer-to-peer sharing and collaborative consumption (P2P SCC) plays an



essential part as, on the one hand, it offers many societal and environmental benefits (Perren & Kozinets 2018; Benjaafar et al. 2019) and on the other hand, it has brought forth some well-known and successful companies, such as BlaBlaCar and Uber.

Since P2P SCC can still be considered a young phenomenon, management research, particularly from a marketer's point of view, is still at its beginning. In particular the question, what are distinctive features between and within these new forms of sharing exchange, is little researched (Eckhardt et al. 2019; Lin et al. 2019). Based on a systematic literature review (Tranfield et al. 2003) and an inductive qualitative analysis (Mayring 2014), we contribute to this research gap in the following ways.

### **Summary of Findings**

First, we provide a determination of what can be understood as peer-to-peer sharing as we summarize seven criteria. We define P2P SCC as a form of economic exchange between equivalently positioned individuals, that does not involve ownership transfer, is enabled by a platform, requires a physical object, that one of the individuals owns or has access to, to be shared or collaboratively consumed as precondition for the exchange to take place.

Second, based on the inductive qualitative analysis, we suggest a set of 15 market-based characteristics to further distinguish within peer-to-peer sharing. For each characteristic, that can be divided into four groups (product & service, prosumer-value, relationship, and platform related characteristics), we define attribute values and provide practical examples to illustrate our findings.

Third, we describe a categorization of peer-to-peer sharing that distinguish between 4 categories. Each category can be considered as a cluster, where models that show similar attribute values can be subsumed. For a better understanding we also provide practical examples for each category.

### **Statement of Key Contributions**

Our study contributes to practice and academe in the following ways: First, we provide a theoretical background on the development of peer-to-peer sharing and shared mobility markets.

We illustrate how peer-to-peer sharing models can be discerned from other forms of the sharing economy and explain the actual role of these models within shared mobility markets.

Second, the market-based characteristics and the categorization help to elevate a more precise marketing understanding about peer-to-peer sharing. We also provide plenty of practical examples to gain an overview of existing business and marketing practices within these businesses. Finally, we lay the foundation for a structured, marketing driven analysis of peer-to-peer sharing business models in general and in mobility markets. Understanding how these can be distinguished and categorized, this study should serve as a starting point for future research to analyze success-making differences from a marketing perspective to understand why many ventures fail and only a few successfully survive.

# **Channels and Supply Chain Management**

**ADDING BRICKS TO BRICKS: UNDERSTANDING REVENUE IMPACT OF  
PHYSICAL MANUFACTURER ENCROACHMENT ON ENTRENCHED BRICK  
AND MORTAR RETAILERS**

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**Keywords:** New channel addition, branded channel, cross channel impact, physical retailing

**Description:** This paper studies the impact of adding physical brand stores on incumbent brick and mortar retailers’ revenue, volume, and assortment.

EXTENDED ABSTRACT

**Research Question**

In recent years, many manufacturers have actively begun retailing their products through exclusive physical branded stores in addition to traditional retailers to build brand awareness, introduce new products faster, and provide consumers with a unique buying experience. Despite the prevalence of such ‘manufacturer encroachment’ in key markets across the world, there is limited scholarly understanding on how adding a new branded channel impacts the fortunes of the entrenched incumbent brick and mortar retailers. Specifically, there

is little scholarship on how adding physical brand stores impacts the revenues incumbent retailers earn from the brand, and the assortment of the brand's goods the retailer chooses to stock. In this paper, take the perspective of a brand (as opposed to the retailers' perspective which extant works have explored) to ask, how does adding physical brand stores impact the brand revenue and brand assortment decisions of co-located incumbent brick and mortar retailers.

### **Method and Data**

The present study uses evidence from the staggered opening of physical brand stores by a single brand kitchenware and kitchen appliances manufacturer to examine the impact of adding one format of brick-and-mortar channel (physical brand stores) on another (traditional retailers) within the confines of a district (our location unit of analysis). We derive a multi-year, multi-location, sales dataset by merging data from the focal brand (this dataset included information such as billing date, billing value, billing volume, payment terms, and product codes), national postal service, national census, and other district level data sources. To identify the causal effect, we employ panel regression with two-way fixed effects. In summary, we test the hypothesis we develop using data from thirteen districts, eleven of which experienced the introduction of a single physical brand store at some point during the eight years that we study (treatment group), and two that had not experienced any new channel addition during the time window (control group).

### **Summary of Findings**

By comparing districts in the treatment group to districts in the control group through a two-way fixed effects model, our study points to evidence of traditional retailers experiencing a positive impact upon the introduction of physical brand stores within the

district. This positive impact is felt across the total revenue retailers earn from the brand, the volume of brand's sale, and the assortment/breadth of the brand's offerings. We argue that these benefits accrued by the incumbent traditional retail channel may be on account of an increase in awareness of about the manufacturer's offerings and brand awareness within the regions physical brand stores are set up, the pricing dynamic that exists between a firm's the two channels, and/or the generation of cross channel demand that consumers' research shopping behaviour brings about. We demonstrate using a staggered adoption plot of estimates, the consistent increase in channel breadth over time after the introduction of a PBS outlet within the district. This approach helps us adjust for temporal variations in new channel introduction.

### **Key Contributions**

We contribute to the literature on cross-channel impacts by analysing how adding one type of physical channel impact incumbent physical channels, a common yet sparsely discussed phenomenon within the extant marketing research. Specifically, we study the impact of adding a physical brand stores on incumbent third-party retailer channels. Our results offer insights into several channel strategy issues. First, we show that the addition of physical brand stores channel may help expand not only the volume of sales, but also the assortment of co-located retailers. This twin effect plays a critical role in improving the sales revenue that the entrenched retailers derive from the brand. Second, we show that the introduction of physical brand stores may serve a critical role in increasing sales from the location across both utilitarian and hedonistic products.

From a methodology standpoint, we contribute to the marketing literature in multiple ways. First, we investigate the act of new channel addition from the perspective of the brand as opposed to a retailer level analysis that prior studies have utilized. Second, we make use of the two-way fixed effects model that greatly reduces the threat of omitted variable bias and achieve more generalizable results.



~~CASE STUDIES ON LOW-COST TECHNOLOGICAL INNOVATIONS FOR SMALL~~  
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**Keywords:** Small Retailers, Technology, Low-cost, Emerging economy.

**Description:** Through a multiple case-study approach, this study tries to understand the various low-cost technologies available to an Indian small retailer and their characteristics leading to its adoption among them.

**EXTENDED ABSTRACT**

**Research Question** - Technology has an enormous impact on any business's success, and for any retail firm, large or small, successful application of technology is very important (Treadgold, 1989). Today when the bigger retailers are impacting the business of small retailers' (Arnold and Luthra, 2000), the importance of leveraging technology by small retailers in developing economies is even higher. The inherent limitations of small retailers, like shortage of resources, force them to spend more time on operational issues, and for them, technology could help devise strategies to counter the competition (Ramakrishnan, 2010). The intention to purchase and use technology is not planned but driven by necessity or environmental factors since the small retailers perceive it unviable in the longer run (Eiriz et al., 2019). So broadly, our interest is to know:

1. What are the various low-cost technological interventions at play in the Indian small retailer's scenario?
2. What are the desired characteristics of a successful technology or a potential successful technology?
3. What the future implications of the technology for both the small retailer and the firm offering the technology?



**Method And Data (Not Applicable For Nonempirical Papers)** - Considering the emerging nature of this field and lack of theoretical studies, we decided to go for an exploratory study that was inductive in approach (Eisenhardt, 1989; Yin, 2017). We carried an in-depth investigation of the case mentioned using a multiple case study method (Yin 1984), wherein we tried to study different technological interventions for small retailers. The multiple case study approach helped us to understand the issue from different perspectives and understand important commonalities.

The primary data was collected by carrying out in-depth interviews with the field sales representatives and their managers. To get the picture of the other side of the coin, we interviewed some small retailers who were engaged in using such technologies, which helped us understand the small retailer's perspective of the technology they were using. Their perspective played an essential role in deducing the managerial implications from the findings. To be more open with the respondents, we tried to keep the interview as much informal as possible.

The secondary data, in the form of business and newspaper articles, also helped us understand this upcoming upheaval in the Indian small retail sector brought about by these low-cost technological innovations.

**Summary of Findings** – Based on our study, we found out that the small retailers desire the following characteristics while adopting a particular technology.

**Low-cost technology:** Always faced with a working capital crunch, they tend to adopt low-cost technologies, as was evident in the case of Mobile procurement app (free), Billing PoS(\$50), and Shop on Amazon (nominal).

**Easy to understand and use:** Operating with limited resources of manpower and hence time, the retailers would adopt a technology that is easy to understand and use. Confirming our beliefs, we could see that all the technologies are effortless to use, be it a mobile app for procurement (UDAAN, RELIANCE, AMAZON), a simple automated point-of-sale billing machine for bill generation, inventory management, and CRM activities (RELIANCE) or a mobile app again for fulfilling orders (AMAZON).

**Provide Value:** A technology must provide value to its users. The more value technology provides, the better are the chances of its adoption (Au and Enderwick, 2000). In our case, we found out that the technology used provided value through *Convenience & Increased business*.

Each of these technologies helps the retailer in achieving major financial and non-financial performance parameters.

**Statement of Key Contributions** – Though few earlier studies have studied small retailer technology adoption in a developing economy, this is perhaps the first research that looked at a multitude of technologies in play. Viewing technology adoption from a multiple technology lens aids us to evaluate a particular topic through different dimensions, eliminating bias resulting from a single-dimensional approach. At the same time, it helps us to unravel the commonalities hidden in each of these technologies, a must-have for them if they are to be adopted.

This study is also one of the very few studies to link the technology adoption perspective to small retailers' performance in an emerging economy context. Through the role of technology in various stages of a small retail operation, this study also emphasizes the impact of technology on a small retailer's performance.

"References are available upon request."

## **EFFECTS OF GREEN PRODUCT DEMANDS IN INDUSTRIAL CHANNELS**

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**Keywords:** Green Products, Relational Embeddedness, Knowledge Redundancy, Buyer/Seller Relationships

**Description:** Industrial channel members face increasing demands for “green” products, challenging buyers and sellers to determine what “green” means, how to develop internal and external abilities to meet those demands and manage their role as both a buyer and seller.

### **EXTENDED ABSTRACT**

**Research Question:** How do “green” product demands impact industrial buyers and sellers in terms of roles, relationships, knowledge redundancy, and capabilities?

**Method and Data:** Hypotheses are tested through a dual cross-sectional survey study with procurement managers in B2B industrial companies (Study 1) and one with marketing managers in B2B industrial companies (Study 2). We first test the effects of green product demands on green product innovation (GPI) subject to the mediating effects of relational embeddedness ( $H_{1a}$  and  $H_{1b}$ ) and knowledge redundancy ( $H_{2a}$  and  $H_{2b}$ ), using data from Study 1 and Study 2. We test the moderating effects of competitive vertical activity on the influence of green product demands on relational embeddedness ( $H_3$ ) and on the influence of green product demands on knowledge redundancy ( $H_4$ ), again using data from each study. Finally, we relate the analyses of the two

studies to assess how buyers and sellers might differ in their viewpoints of: 1) the relationships between green product demands, relational embeddedness, and GPI ( $H_{5A}$  and  $H_{5B}$ ); and 2) the relationships between green product demands, knowledge redundancy, and GPI ( $H_{6A}$  and  $H_{6B}$ ). Our hypotheses were tested employing the covariance-based structural equation modeling software AMOS 25, using maximum likelihood (ML). Supplementary tests for mediation to assess the indirect effects model were conducted, as well as path comparative analyses to compare buyer and seller perspectives.

**Summary of Findings:** The findings suggest that industrial procurement and marketing managers may consider relational embeddedness and knowledge redundancy as full mediators between a firm's perception of its customers' green product demands and the firm's level of GPI; green product demands do not appear to directly influence GPI. The findings also suggest that managers consider customer green product demands as an antecedent to GPI, but not directly. Path comparative analysis also reveals that buyers and sellers do not necessarily agree on the valence or importance of these mediators, nor do they agree on the moderating effects of vertical competitive activity by the other party. It is also interesting that green product demands had a positive effect on knowledge redundancy for marketing managers but a negative effect for procurement managers, yet both suggest a negative effect of knowledge redundancy on GPI. This disparity suggests, although not tested, that sellers seek some knowledge redundancy to identify potential customers in the context of green product markets, however, too much redundancy limits innovation. Conversely, buyers seek a lack of knowledge redundancy as a qualifier for sellers in a green product environment.

**Key Contributions:** The introduction of the "green product demands" construct advances the industrial market channel literature related to "green" providing a useful means of assessing and

distinguishing buyers' green product demands by their *relative scope*. Further, through a dual study we complement ongoing research exploring the influence of ties in B2B industrial channels. Specifically, we examine the moderating impact of other vertical ties (with respective competitors) possessed by buyers and sellers on the effects of green product demands on buyer/seller knowledge redundancy and relational embeddedness. In doing so we gain insights into how buyers(sellers) regard the vertical relationships possessed by potential or existing sellers(buyers), respectively, extending the rich and ongoing strength of ties research stream in industrial channels. The work also proposes a four-item reflective measure for the *green product innovation* (GPI) construct, and empirically investigates the indirect effects of green product demands on green product innovation, wherein knowledge redundancy and relational embeddedness act as separate co-existing mediators. The introduction of a measure for GPI advances the industrial market channel GPI literature and provides a method for assessing and distinguishing sellers' existing and potential for providing innovative green products and knowledge.

## **How Interorganizational Strategic Behavior Impacts the Likelihood of a Product Recall**

### **ABSTRACT**

There is limited empirical research about the effect of growth via mergers and acquisitions and corporate venture capital activities on product quality. We investigate this relation by using the punctuated equilibrium theory to describe the effect of organizational changes through mergers and acquisitions and corporate venture capital investments. We use product recalls as a measure for product quality. Based on a longitudinal dataset of 853 firm-year observations from 2012 – 2018 of large firms in the healthcare industry, we show that growth either through mergers and acquisitions or corporate venture capital investments increases the risk of a firm to experience a product recall. We further investigate the moderating effect of chief strategy officers in the top management team. The results suggest that the increased risk of a product recall through mergers and acquisitions is negatively moderated if the company has a chief strategy officer. Our findings advance (a) the punctuated equilibrium theory, (b) the product recall literature, and (c) the rising literature on top management team members. The research is especially relevant for healthcare scholars and practitioners since product quality is a core element of the healthcare system that has a direct impact on patients.

#### **Keywords:**

Patient safety; strategic management; organizational performance

## INTRODUCTION

64 deaths. This is the tragic result of a contaminated product that caused 753 cases of meningitis in 2012 (FDA 2018.). The “vials of injectable corticosteroid medication manufactured by the New England Compounding Center” got recalled by the U.S. Food and Drug Administration (FDA) in the same year (Hall, Steward, Chang, & Freeman, 2016: 235). As a result, the company had huge financial losses and went bankrupt at the end of 2012. The lead manufacturing pharmacist of the company was sentenced to eight years in prison in 2018 (FDA 2018). This shows that just one product recall can have a detrimental impact on a company, or even worse, on patients.

Due to such harmful events, antecedents of product recalls are of high interest for practitioners and academic researchers in many different disciplines such as marketing, operations, and management (Ball, Shah, & Wowak, 2018; Cleeren, Dekimpe, & van Heerde, 2017; Kashmiri & Brower, 2016). However, the topic never received high attention from healthcare scholars. We argue that the research about product recalls in the healthcare industry offers valuable insights for this audience as well since they investigate the potentially harmful effects of different parts of the healthcare system on patients (e.g. Culyer, 1992; Sloan, 2007). Therefore, we want to advance the research around product recalls in the healthcare industry which is initially motivated by a more recent product recall incident. In 2019, 31 defibrillators of Abbott Laboratories had to be explanted and removed from patients (Medtechdive, 2019) because the “use of these devices may cause serious injuries or death” (FDA, 2019a). The product was originally manufactured by St. Jude Medical, a company that was acquired by Abbott Laboratories in 2017 for \$25 billion (Bloomberg, 2016). Thus, we want to specifically examine if product recalls in healthcare are affected by a firm’s inorganic growth activities such

as mergers and acquisitions (M&A) or corporate venture capital (CVC) investments. Prior research has shown that managing inorganic growth through M&A is complex from organizational perspective (Larsson & Finkelstein, 1999) since M&A activities are often followed by a complicated integration process (Bauer, Dao, Matzler, & Tarba, 2017) as well as restructuring and the renewal of the firm (Vermeulen & Barkema, 2001). Therefore, M&A leads to significant discontinuities of the organizational setup and operational processes in both the acquired and acquiring company (Bauer et al., 2017). A similar logic can be applied to another prominent growth method of firms: corporate venture capital investments. After a venture receives funding from a corporate venture capital investor, the venture experiences discontinuities due to increased financing power that comes along with structural changes and new strategic goals (Röhm, Merz, & Kuckertz, 2019). We argue that these discontinuities following M&A and CVC investments can lead to situations where firms compromise product safety and, as a result, are more likely to have a product recall. Thus, our primary objective in this study is to examine if companies that grow inorganically via M&A or via CVC activities have a higher likelihood to experience a product recall.

Since such inorganic growth activities place significant demands on the top management team, some companies have developed specific structures and invested in managerial capabilities to succeed in M&A and CVC activities. One role in the top management team that has been found to be particularly associated with M&A and CVC activities is the chief strategy officer (Menz & Scheef, 2014). He or she is almost solely responsible for CVC investments, acquisition strategies, and the execution of M&A deals if the company has a chief strategy officer in their top management team (Breene, Nunes, & Shil, 2007; Menz & Scheef, 2014). According to Breene et al. (2007: 8), the whole “top management spends less than three hours a month, on



average, discussing strategy issues (including mergers and acquisitions)”. In contrast, a chief strategy officer in the top management team can focus almost exclusively on selecting, managing, and coordinating M&A and CVC activities. Thus, we examine empirically whether having a chief strategy officer in the top management team can reduce the risk of a product recall after these inorganic growth activities.

This study contributes to the existing literature in three ways: First, our study advances the punctuated equilibrium theory which was described as a “promising underutilized theory” for product recalls (Wowak & Boone, 2015: 64). We demonstrate that inorganic growth is used by firms to trigger change and to adapt to a changing environment. These changes cause a company to leave its current equilibrium period and transition to a period in which the organization is undergoing significant change and transformation (e.g. structure, power, control relationships). Recalls are a measurable adverse effect of this change and transformation, causing harm to both the firm’s patients and the firm itself.

Second, we advance strategic management literature by showing that companies which grow inorganically through M&A and CVC investments have a higher likelihood to experience a recall. Neither the M&A nor the CVC literature focuses on product quality as a firm outcome, although product recalls can have significant financial and non-financial impacts on companies. We advance the healthcare and recall literature by identifying further causes for product recalls. Shah et al. (2016) argue that there are only a few studies examining the causes of product recalls. We respond to the research call of K. D. Wowak and Boone (2015) by investigating the impact of the top management team on product recalls.

Third, we contribute to the emerging literature on functional top management team members. While Menz & Scheef (2014: 469) show that the presence of a chief strategy officers is not directly

associated with firm performance, they call specifically for researchers to test the effect of their presence on “intermediate, function-specific outcomes, such as the quality of strategic decisions [...] rather than the more distant financial performance measures”. Following this call for research, we find that the chief strategy officer can have a positive influence on M&A and CVC investments since the likelihood of a product recall is lower in companies that have a chief strategy officer in the top management team compared to companies without a chief strategy officer among the top executives.

## **THEORETICAL BACKGROUND AND HYPOTHESES**

### **Punctuated Equilibrium Theory**

To describe the changes during M&A and CVC investments and the effect of experiencing a product recall afterwards, we draw on punctuated equilibrium theory. According to the theory, firms move along three stages (Tushman & Romanelli, 1985). First, firms are in a stage of stability, in which they follow their standard patterns and only make incremental changes - the equilibrium period (Romanelli & Tushman, 1994). During this phase, the company follows its own “deep structure” which is defined along five areas: the (a) “core values and beliefs”, the (b) product and market strategy, the (c) resources and their allocation within the company, the (d) “fundamental structure”, which implies roles and hierarchies, and the (e) related controls within the company (Tushman & Romanelli, 1985: 175). Second, this stage is followed by the revolutionary period where companies have to make changes to their deep structure because of “internal changes that pull parts and actions out of alignment with each other and environmental changes that threaten the system's ability to obtain resources” (Gersick, 1991: 21). During this reorientation, the firms make massive changes that influence their core DNA like transforming “strategy, power, structure and controls” (Tushman and Romanelli 1985: 171). These changes influence the behavior of the system members and lead to uncertainty among them (Gersick, 1991). Third, the company adapts to the made changes and a new stable equilibrium period follows (Tushman & Romanelli, 1985).

We draw on the punctuated equilibrium theory to argue that firms that get acquired by large corporations or invested in during a CVC deal experience a change in their deep structure because of several reasons. The company might have shifts in the top management team after an acquisition or investment because the investing firm gets a seat in the board to monitor and

influence the behavior of the venture (Röhm, 2018) or acquisition and thus lose autonomy. The firm changes its strategy and structure and finds itself in a revolutionary period, in which it experiences significant discontinuities compared to the state before the acquisition or investment. These discontinuities lead to product quality problems which increase the chance to experience a product recall.

Driven by the punctuated equilibrium theory we further develop and test hypotheses based on healthcare acquisition and healthcare economics literature (Schmitt, 2017) as well as latest product recall literature from other disciplines such as strategic management (Shah et al., 2016), marketing (Eilert, Jayachandran, Kalaignanam, & Swartz, 2017) and operations management (Ball et al., 2018). Figure 1 shows our research model.

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Insert Figure 1 about here  
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### **Antecedents of Product Recalls**

Wowak & Boone (2015: 64) describe a product recall as the event of a “tainted product” which is “discovered and need[s] to be removed from the circulation” resulting in a period “of turbulence during which the firm has to formulate and implement a strategy to help the system”. Since these tainted products can be life-threatening for consumers and the related product recall can be financially severe for companies (Cleeren et al., 2017) the antecedents of product recalls in healthcare are in the focus of management, operations, and marketing literature in recent years. Management scholars find that the scope of the product portfolio, the firm size and the compensation of the CEO influence the likelihood of firms to experience a product recall by the FDA (Thirumalai & Sinha, 2011; Wowak, Mannor, & Wowak, 2015). Operations scholars find that higher competition leads to an increase of manufacture related product recalls of drugs (Ball

et al., 2018) and “experience derived from internal and supplier failures reduces the potential for future recalls” (Hall & Johnson-hall, 2017: 13) whereas marketing scholars focus on the influence of CEO narcissism on product recalls (Kashmiri, Nicol, & Arora, 2017) and the influence on make or buy decisions of new product development (Kalaiganam, Kushwaha, & Swartz, 2017). To our knowledge there is only limited research on antecedents of FDA product recalls in healthcare literature. This is surprising, we contend that product recalls by healthcare companies are also relevant for healthcare economist scholars. In current research product recalls are used as a measure for product quality, since firms that experience a recall show poor quality control for their marketed products (Kalaiganam, Kushwaha, & Eilert, 2012; Chao, Irvani, & Savaskan, 2009). We argue that the quality of healthcare products and its drivers should be in the focus of healthcare economists since it offers valuable insights for them. To advance this research, we look at strategic growth activities such as M&A and CVC activities of healthcare companies and investigate the impact on product quality by assessing whether there is a relation of such activities to the likelihood of the firms experiencing a product recall.

### **Inorganic Growth via Acquisitions and the Impact on Product Recalls**

M&A deals are complex from an organizational perspective (Larsson & Finkelstein, 1999) since acquisitions often come along with restructuring and the renewal of a firm (Vermeulen & Barkema, 2001). Especially the integration process is complicated due to (a) unexpected events such as unrevealed facts about the acquired company, (b) increased threats from competitors, and (c) internal discomfort due to individual anxiety and uncertainty felt by the employees (Bauer, Dao, Matzler, & Tarba, 2017; Gates & Very, 2003). According to Zollo (2009), M&A activities are strategic decisions that are “full of complexity and disruptions to

both involved organizations” (Bauer et al., 2017: 1). We argue that such disruptions punctuate companies which makes them leave their equilibrium state resulting in a transition to the revolutionary period as proposed (Tushman & Romanelli, 1985). Not all firms are able to successfully cope with the complexity and disruptions coming along with M&A activities. Therefore, many M&A deals do not create value or even have negative abnormal returns (Aktas, de Bodt, & Roll, 2009).

However, many firms engage in M&A activities for several reasons. Some want to gain new capabilities, increase their innovation output by assessing external technologies or broaden their knowledge base (Cefis & Marsili, 2015). Some strive for synergies and efficiency gains within their organization (Trautwein, 1990), while others want to grow into new markets or enhance their product portfolio (Schweizer, 2005). Healthcare scholars discover similar findings. Capps, Dranove, and Ody (2018) argue that acquisitions lead to a price increase in services from acquired physicians. Schmitt (2017) finds that hospitals that merge strive to get synergy effects and reduce their costs after the merger. These effects of acquisitions are also related to product quality failures. Firm innovativeness can increase the likelihood to experience a product recall (Steven, Dong, & Corsi, 2014). Thirumalai and Sinha (2011) show that an enhanced product portfolio is related to more product quality failures. Structural discontinuities that follow M&A activities are in general associated with product recalls (Mukherjee & Sinha, 2018). These discontinuities can be triggered through the changes that come along with M&A integration. Taken together, we hypothesize that increased acquisition activity is related to disruptive changes within a company and therefore can impact product quality.

*Hypothesis 1: The M&A activity of a firm is positively related to its likelihood to experience a product recall.*

### **Inorganic Growth via CVC Investments and the Impact on Product Recalls**

Another business activity for external business development are CVC investments (Tong & Li, 2011). Unlike acquisitions, which are mostly “one-shot transactions requiring large upfront investments”, CVC investments can involve “sequential resource commitments” among many stages (Tong & Li, 2011: 662). Many large firms have CVC units or programs which fund entrepreneurial companies and get an equity share in return (Dushnitsky & Lenox, 2005a; Keil, Maula, Schildt, & Zahra, 2008). The motive for a firm to make CVC investments can be both strategically and financially driven. However, the strategic objectives generally prevail (Dushnitsky, 2009). One key objective of CVC investments is to foster innovation and get access to new technologies (Dushnitsky & Lenox, 2005b). New innovative ideas are often developed and commercialized in start-ups (Keil et al., 2008). The funding of a venture capital investor can even lead to higher innovation-output since the financial constraints are reduced (Röhm, 2018). Chemmanur, Loutskina & Tian (2014) show that CVC-backed ventures have a higher patenting output and are riskier compared to the independent venture capital-backed ventures. Recall literature posits that a high innovation performance can lead to an increased number of product recalls if the company focusses on the development of new products (Steven et al., 2014; Thirumalai & Sinha, 2011) because the innovativeness of firms is related to unexpected product failure (Mackelprang, Habermann, & Swink, 2015). We additionally argue that the change for ventures after a CVC investment is disruptive. The ventures have additional financing power for their projects and undergo power and structural changes. Usually, the investor gets a seat in the new ventures’ board to monitor and influence the behavior of the venture to exercise their control rights (Röhm, 2018). Additionally, the strategic behavior of the venture might change since it has to meet predefined milestones to get additional financing (Röhm, 2018).

As a result, we argue that the increased innovation output in combination with the changes accompanying a CVC deal increases the risk of the firm to experience a product recall.

*Hypothesis 2: The CVC activity of a firm is positively related to its likelihood to experience a product recall.*

### **The Moderating Role of the Chief Strategy Officer**

Chief strategy officers are executives who are explicitly responsible for three main tasks in the strategy process: they need to (a) envision a corporate strategy, clarify it for the whole firm and drive the implementation of that strategy among the business functions, (b) drive that change immediately, and (c) constantly foster strategy decision making among the executive team to adapt to a changing environment (Breene et al., 2007). Many operative tasks fall into the area of responsibility of the chief strategy officer. Two core operative responsibilities are managing M&A and corporate venture activities (Breene et al., 2007). During large acquisitions, the chief strategy officer might deal with tasks around the transaction process and post-merger integration exclusively (Menz & Scheef, 2014) while the other executives “spend less than three hours a month, on average, discussing strategy issues (including mergers and acquisitions)” (Breene et al., 2007: 8). Having a dedicated M&A function improves the M&A performance of a company (Trichterborn, Zu Knyphausen-Aufseß, & Schweizer, 2016).

Based on the presented finding, we argue that having a dedicated executive in the top management team, the chief strategy officer, to orchestrate M&A activities will reduce the risk of a company experiencing a product recall after the M&A activities. Since the chief strategy officer can spend sufficient time to assess the risk of these investments and to react to changes if



needed, we argue that they can improve the quality of acquisitions. Based on this we hypothesize:

*Hypothesis 3a: The presence of a chief strategy officer in the top management team negatively moderates the relationship between the M&A activity of a firm and its likelihood to experience a product recall.*

The chief strategy officer is also responsible to conduct corporate venture activities and spends way more time in assessing these activities compared to other board functions (Breene et al., 2007). We argue that due to the increased time for the assessment he can better identify the risks that come with investing in new ventures. One of these risks can be faulty products which can be identified by the chief strategy officer during the assessment process of the venture. We argue that if such risks are identified, the chief strategy officer will not invest in the venture. By this, the share of investments with non-faulty products increases mitigating the negative outcomes of too risky CVC investments. Thus, we hypothesize:

*Hypothesis 3b: The presence of a chief strategy officer in the top management team negatively moderates the relationship between the CVC activity of a firm and its likelihood to experience a product recall.*

## METHODOLOGY

### Sample and Data

**Research context.** We focus our analysis on the medical device industry due to two reasons: first, the FDA sets the same standards for all medical device products sold in the United States making our results comparable. Second, medical device recalls can have a significant impact on a company since they can cause “serious adverse health consequences or death” (FDA, 2019b) making them relevant for companies experiencing a recall.

To test our hypotheses, we collect longitudinal data over a period from 2012 – 2018 from four sources: The FDA homepage, the Compustat database, the ExecuComp database, and the Thomson Reuters EIKON database. We focus the analysis on large firms (Standard & Poor’s S&P 500 large-cap and the S&P 400 mid-cap). To account for survivorship bias, all companies that appear at least once during the sample period in one of the two indices are part of our sample. We focus on firms that are “significantly regulated” by the FDA to ensure all firms could experience FDA recalls. Our final sample consists of 180 firms and six firm-years.

**Product recall data.** We collect the recall data from the weekly FDA enforcement reports for the years 2013 – 2018. These are published on the FDA homepage. We focus our analysis on this timeframe since the FDA changed its regulations in 2012 “resulting in increased regulation of compounding practices and procedures” (Hall et al. 2016: 236). These changes lead to an increase in recall numbers for medical devices from 701 in 2012 to 2,304 in 2013 (FDA, 2019c). Since we want to have a low variance in our dataset and ensure the same standards were used to issue a recall we focus on the years since the regulatory change. We follow Thirumalai & Sinha (2011) and perform our analysis on medical device recalls that are categorized as class 1 and

class 2 by the FDA. The FDA classifies all recalls in three categories. class 1 recalls “will cause serious adverse health consequences or death” (FDA, 2019b) and class 2 recalls “may cause temporary or medically reversible adverse health consequences” (FDA, 2019b) whereas for class 3 recalls “a violative product is not likely to cause adverse health consequences” (FDA, 2019b) Therefore, a class 3 recall is less critical for a company.

***Acquisition data.*** We collect completed M&A deals made between 2012-2018 from the Thomson Reuters EIKON database where the firms were the acquirer or the “ultimate parent” of the acquiring firm. Thus, we ensure to also cover M&A deals of the subsidiaries of our sample firms. In comparison to the recall data we also collected the year 2012 since we investigate the relationship between M&A activity and product recalls in the following year.

***CVC data.*** We collect all CVC deals made by the companies in our sample and their CVC units between 2012-2018. We gathered the data from Thomson Reuters EIKON (“also known as Thomson One, VentureXpert, or Venture Economics” (Röhm, Merz, and Kuckertz 2019: 2)) with the “private equity screener”. EIKON collects data through regular surveys of investors in the venture capital industry and thus, ensures to get information that goes beyond official deal statements (Röhm et al., 2019).

***Data on the chief strategy officer.*** We gather the data of the executives of our sample firms from the ExecuComp database for the years 2012 - 2018. Following Patel & Cooper (2014) we define the top management team as the top executives that are listed in a firm’s DEF 14A

form filing. We find that in 26% of the firm-year observations a chief strategy officer was present in the top management team of our sample firms.

***Firm characteristics.*** We gather certain firm characteristics (e.g. firm size, R&D intensity, capital intensity) from Compustat accessed via the Wharton Data Research Services database. Since some firms were not publicly traded through the entire time period and therefore did not have data available in Compustat the final sample consists of 853 firm-year observations.

## **Measures**

***Dependent variable.*** We follow extant management literature (Kashmiri et al., 2017; Wowak et al., 2015) and use *product recall* as a binary variable (1/0) to account for product failures. The binary variable takes the value 1 when the firm experienced at least one medical device recall in the respective year and 0 otherwise.

***Independent variables. Number of acquisitions.*** To measure acquisition activity we use the number of completed acquisitions of a firm in one year which has been used in current acquisition literature (Gamache, McNamara, Mannor, & Johnson, 2015; Haleblian, Pfarrer, & Kiley, 2017). ***Number of CVC deals.*** To use the same measure for CVC activity as for M&A activity we use the number of CVC deals made by a firm in one year. We lag both independent variables and the moderating variable by one year because there is a time difference in acquiring a company via M&A and CVC and the actual outcome of the company having a product recall resulting from the investments. This follows prior recall research (Wowak et al., 2015) and additionally mitigates reverse causality concerns.

**Moderating variable. The chief strategy officer.** To identify whether there is an chief strategy officer in the top management team we follow Menz (2012) and search for the words “CSO”, “development”, “globalization”, “growth”, “integration”, “planning”, “strategy”, and “strategic” in the title description of ExecuComp. We coded a binary variable that is 1 if the company has a chief strategy officer among the executives listed in ExecuComp in a year and 0 otherwise.

**Control variables.** We follow the latest recall literature (e.g. Ball et al., 2018) and control for recall experience since past recalls can influence a firm’s likelihood to experience a recall again. To account for this effect, we include a one-year lagged variable of the dependent variable (*recall likelihood*) in our regression.

We control for six firm characteristics: first, we control for the *size of the firm* by taking the natural logarithm of the company sales. It seems more likely for large companies to experience recalls compared to smaller companies. Second, as in prior recall research, we use *return on assets (ROA)* to control for firm profitability (Eilert et al., 2017). Third, we control for *research and development (R&D) intensity* (ratio of R&D expenses to firm sales) since it can affect a firm’s likelihood to experience a recall (Ball et al., 2018). Fourth, we follow Urbig, Bürger, Patzelt, & Schweizer (2011) and control for *firm age* (natural log-transformed). Fifth, we control for *capital intensity* (capital expenditure normalized by sales). Sixth, following Borah & Tellis (2016) we control for *Tobin’s q*. We calculated it as the ratio of the market value of entity divided by the total assets. Additionally, we follow Bendig, Willmann, Strese, & Brettel (2018)

and control for *market turbulence* as the ratio of sales and general administrative expenses to sales of firms in the same SIC code.

We control for year- and industry-fixed effects and winsorize the continuous variables at the 1% level reducing the influence of extreme observations as done in prior research (e.g. Lång & Nystedt, 2018).

### **Estimation Method**

We use the following model to test our hypotheses:

$$\begin{aligned} Recall_{i,t+1} = & \alpha C_{i,t} + \beta_1 (M\&A\ activity)_{i,t} + \beta_2 (CVC\ activity)_{i,t} + \beta_3 (CSO\ presence)_{i,t} \\ & + \beta_4 (CSO\ presence \times M\&A\ activity)_{i,t} \\ & + \beta_5 (CSO\ presence \times VC\ activity)_{i,t} + \beta (controls) + \varepsilon_{i,t} \end{aligned}$$

$Recall_{i,t+1}$  is the likelihood of a firm to experience a recall. It is a binary variable that takes the value of 1 if the firm  $i$  experienced a recall in year  $t+1$ , 0 otherwise. We mean-centered and standardized the non-binary variables for the analysis based on the respective sample. Following Shah et al. (2016) we use generalized estimating equations (GEEs), a method first published by Liang and Zeger (1986), for our calculation. GEEs are widely used in recall literature (Shah et al. 2016; A. J. Wowak, Mannor, and Wowak 2015; Rhee 2009) since they are the preferred method compared to fixed- or random-effects models due to three reasons: first, the dependent variable recall likelihood is zero for many of the firm-year observations as recalls are a rare event. GEEs do not eliminate these zeros (like fixed effects models would do). Second, GEEs correct serial correlation accounting for unobserved correlations between the dependent variable (Shah et al.,

2016). Third, we have heteroscedasticity in our data which GEE models account for (Shah et al., 2016). GEEs are therefore favorable for our setting (Ballinger, 2004; Shah et al., 2016). We follow Wowak et al. (2015) and use a binomial distribution with a logit link function and robust standard errors since our dependent variable is binary.

## RESULTS

### Main Findings

Table 1 shows the descriptive statistics of our sample and the corresponding correlation matrix except for the year- and industry-fixed effects. We additionally checked the variance inflation factors (VIF) to mitigate concerns about multicollinearity, which is a common practice in extant literature (Avkiran, 2018; Vera et al., 2018). The mean VIF of our model is 1.58 and the highest one is 2.12 reducing multicollinearity concerns. Kalnins (2018) highlighted that the risk of multicollinearity cannot be fully mitigated relying on low VIF alone. Additionally, we introduce each of our independent variables separately in our models as already done in prior research (Mata & Alves, 2018). Since we do not see any flips of the coefficients of other independent and control variables, multicollinearity is not a significant issue.

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Insert Table 1 and 2 about here  
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Table 2 shows the result of our regression analysis with GEEs. Model 1 shows the effect our control variables have. Then we add M&A activity in Model 2. The correlation is positive and significant ( $\beta_1 = 0.31, p < 0.01$ ) providing support for Hypothesis 1. In Model 3 we test our second Hypothesis by testing the effect of CVC activity on product recall likelihood. Our results show a positive significant relationship ( $\beta_2 = 0.37, p < 0.01$ ). This result supports Hypothesis 2. In Model 4 we calculate with M&A and CVC activity in the same model. The significance levels of both effects stay the same ( $p < 0.01$ ) and the  $\beta$  coefficient remains positive for both variables. We added the variables one by one to check whether we have the concern of multicollinearity as suggested by Kalnins (2018). To test our Hypotheses 3a and 3b we added chief strategy officer



presence and its interaction terms. We find a significant negative effect of the moderation of M&A activity through the presence of a chief strategy officer ( $\beta_4 = -0.20, p < 0.05$ ) supporting Hypothesis 3a. We also find a negative effect of the moderation of CVC activity on recall likelihood through the presence of a chief strategy officer. However, the effect is not significant. Thus, we do not find support for Hypothesis 3b.

### **Robustness Check**

We argue that GEEs are suited best to analyze our data, but logit regressions are also widely used in recall literature (Borah, Tellis, and Borah 2014; Liu, Liu, and Luo 2016). Therefore, we perform a logit regression for the same variables as in our GEE model. In Table 3 we listed the results of the logit regression. All significant effects from the GEE model stay significant in the logit regression ( $p$  values  $< 0.05$ ), showing that our results are robust.

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Insert Table 3 about here  
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## DISCUSSION

Understanding the antecedents of product recalls is important for practitioners and researchers. Yet, the research about the causes of product recalls in healthcare literature is limited. The objective of this research study is to reduce this gap and find drivers for product quality failures. Our results indicate that firms that have a high acquisition and corporate venture capital activity have a higher chance to experience a product recall. We find that the effect of increased product recall likelihood due to increased M&A activity is negatively moderated by the chief strategy officer - a functional top management team member that is responsible to handle M&A and corporate venture capital investments (Breene et al., 2007).

### **Theoretical Implications**

Our study makes three main theoretical contributions: first, we advance the punctuated equilibrium theory (Tushman & Romanelli, 1985) by giving an explanation why firms change from the equilibrium period to the revolutionary period and, more importantly, what the negative outcomes of this period can be. The likelihood of a firm experiencing a product recall increases after changing core elements of their business (e.g. their strategy), which especially the acquired companies or the companies that got invested in, experience. Wowak & Boone (2015) mention the theory as promising and underutilized for product recalls, since they see a recall as the event that disrupts a supply chain and the firm tries to get back to the old state of equilibrium by implementing strategic changes. We use the theory to describe how M&A and corporate venture capital investments are the drivers of a company to get out of the equilibrium period and we argue that recalls are a result that happens in the period afterwards, the revolutionary period (Tushman & Romanelli, 1985).

Second, we demonstrate that inorganic growth is related to an increase of the likelihood to experience a product recall which contributes to healthcare, product recall, CVC, and M&A literature. We show that healthcare companies that have the strategy to grow via M&A and CVC have reduced product quality of their manufactured products. To our knowledge, we are the first ones to investigate the outcome of M&A on such impactful events like product recalls. The results could give an explanation why many M&A deals are not successful and in the end value-destroying. It is a possible reason to explain why M&A deals are not successful. Explaining that product recalls could be the reason for value-destroying acquisitions.

Third, our results contribute to the research about the top management team by investigating the positive impact of having a chief strategy officer in the senior executive team. If a company has a chief strategy officer, M&A and CVC investments belong to the area of responsibility of the chief strategy officer (Breene et al., 2007). Assuming that fewer product recalls signal better decision-making on behalf of the chief strategy officer, this finding also indicates that functional executives have indeed specialized functions among the top management team (Menz, 2012). We do not find evidence that a firm's likelihood to have a product recall after a CVC investment is negatively moderated by the presence of a chief strategy officer. This suggests that although CVC is within the area of responsibility of chief strategy officers (Breene et al., 2007) they do not have such a strong impact on the quality of the investments as on M&A investments. A Firm's M&A activity is positively correlated with their likelihood of having a chief strategy officer (Menz & Scheef, 2014). We offer support for the notion that a chief strategy officer can add value to function-specific outcomes, as suggested by Menz & Scheef (2014) since our findings indicate that firms with a chief strategy officer have a

reduced risk to experience a recall after the M&A and CVC investments compared to firms without a chief strategy officer.

### **Practical Implications**

Our findings have practical implications for managers of healthcare companies. We strive to increase awareness that inorganic growth is potentially associated with reduced product quality and a higher risk of experiencing a product recall. Since we contend that the discontinuities that come along with M&A and CVC investments, corporate decision-makers of firms could try to mitigate the product recalls by only slowly making changes to the acquired or invested company. Furthermore, in firms that grew inorganically the senior executives should focus on product quality of their own and, even more importantly, the products of the acquired company after the acquisition. If corporate decision-makers of firms decide to have a growth strategy that requires many acquisitions or CVC investments, they should install a dedicated function, like the chief strategy officer, to manage these investments.

Additionally, our findings should increase the awareness of the FDA. Products of companies that grow a lot via M&A and CVC investments could be investigated more carefully. The FDA could set higher hurdles for the products of companies that recently got acquired or invested or install additional investigation rounds for the existing products in fixed timeframes after the acquisition (e.g. 3 months, 6 months, 1 year). By this, the FDA could better fulfill its mandate to protect the public.

### **Limitations and Avenues for Further Research**

Our research has several limitations. First, we only investigated companies in the healthcare industry that are regulated by the FDA. We cannot generalize our results and apply them to other industries. Second, we only looked at the U.S. market. Since the likelihood to experience a recall is strongly dependent on the regulating government agency, our results do not provide information to any other country. Third, we only investigate whether a company that did M&A and CVC investment experiences more recalls. We did not explicitly test if the firm that actually got acquired or invested in, experienced the recalls. Just if the acquiring firm has an increased product recall likelihood. Future research could have a closer look at the actual acquired companies and could also differentiate between different types of M&A. Friendly M&A deals could have an even higher chance to reduce product quality risks since the cooperation between the companies involved in the deal would be better among all stages of the acquisition and integration process. Additionally, it could be investigated how acquisitions or CVC investments into different parts of the value chain affect product quality. We expect that investments into very innovative companies have a higher chance of recall likelihood than investments into companies who focus on operations.

In conclusion, this study provides first insights into how inorganic growth activities affect product quality in U.S. healthcare firms and the mitigating effect of top management team structure.

## APPENDIX

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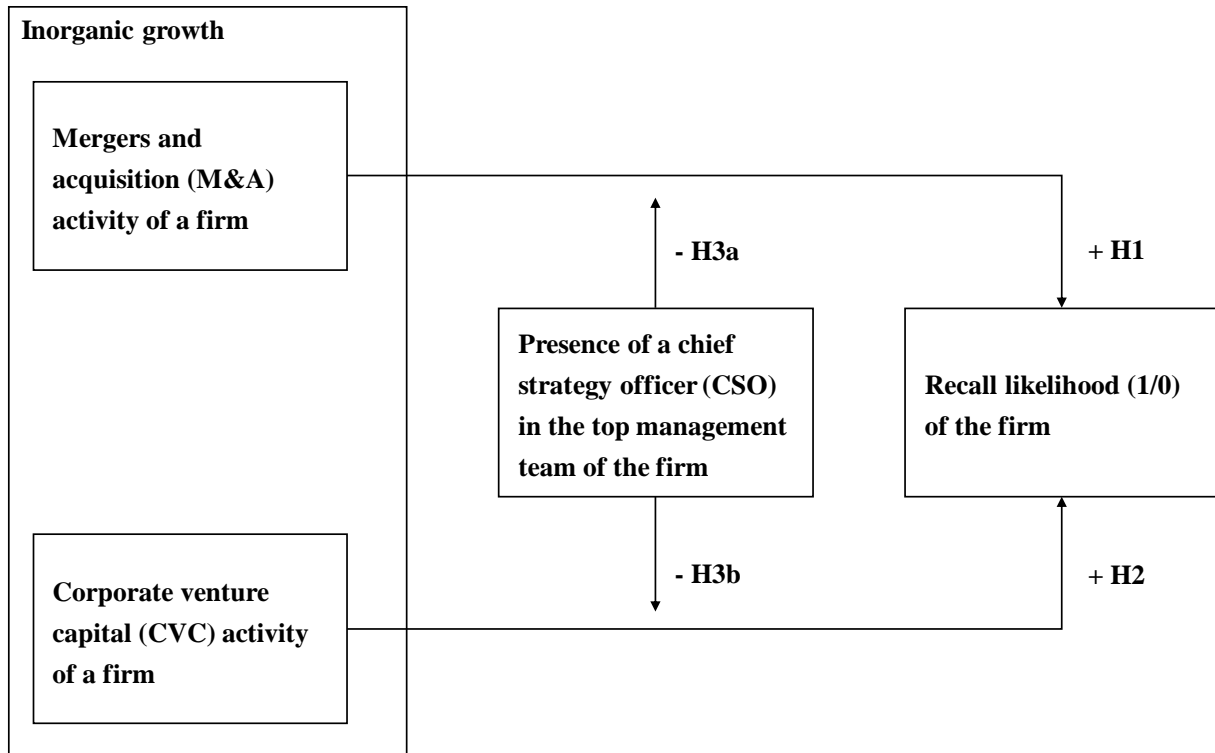


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**FIGURES AND TABLES**

**Figure 1**



**Table 1:** Descriptive statistics and correlations

<i>Variable</i>	<i>Mean</i>	<i>S.D.</i>	<i>Min</i>	<i>Max</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Product recall likelihood	0.28	0.45	0.00	1.00	1.00										
(2) M&A activity	1.36	1.90	0.00	8.00	0.28	1.00									
(3) CVC activity	0.13	0.47	0.00	2.00	0.20	0.15	1.00								
(4) CSO presence	0.27	0.44	0.00	1.00	-0.05	-0.08	0.10	1.00							
(5) Lagged recall likelihood	0.28	0.45	0.00	1.00	0.68	0.25	0.18	-0.05	1.00						
(6) Sales	8.67	1.47	4.71	11.86	0.09	0.33	0.26	-0.08	0.08	1.00					
(7) R&D Intensity	0.06	0.13	0.00	1.47	-0.02	-0.06	0.19	0.23	-0.02	-0.20	1.00				
(8) Firmage	3.34	0.60	0.69	3.89	0.13	0.22	0.13	-0.13	0.14	0.37	-0.04	1.00			
(9) Capital Intensity	0.38	0.27	0.08	1.02	-0.21	-0.18	-0.10	-0.10	-0.19	0.04	-0.21	0.11	1.00		
(10) Tobins Q	2.12	1.82	0.20	9.30	-0.10	-0.18	-0.01	0.18	-0.07	-0.31	0.44	-0.11	-0.02	1.00	
(11) Market Turbulence	0.26	0.13	0.00	0.49	0.22	0.01	0.21	0.13	0.23	-0.25	0.41	-0.02	-0.29	0.32	1.00

n = 853 firm-year observations

Significance (p-values) of correlations in parentheses

Values not mean centered and standardized in the correlation table

**Table 2:** Product recall likelihood - estimated with GEEs

Independent variable	Dependent variable is recall likelihood (binary)				
	Model 1	Model 2	Model 3	Model 4	Model 5
M&A activity		0.31** (0.11)		0.37** (0.14)	0.49*** (0.14)
CVC activity			0.37** (0.14)	0.30** (0.11)	0.26* (0.11)
CSO presence					-0.13 (0.09)
M&A activity x CSO presence					-0.20* (0.08)
CVC activity x CSO presence					-0.10 (0.12)
Lagged recall likelihood	1.54*** (0.27)	1.58*** (0.27)	1.34*** (0.27)	1.33*** (0.27)	1.31*** (0.27)
Sales	0.78*** (0.18)	0.67*** (0.18)	0.68*** (0.18)	0.59** (0.18)	0.60** (0.18)
R&D intensity	-0.78** (0.26)	-0.78** (0.27)	-1.13*** (0.28)	-1.13*** (0.27)	-1.14*** (0.28)
Firmage	0.33† (0.19)	0.27 (0.20)	0.30 (0.20)	0.26 (0.20)	0.25 (0.21)
Capital intensity	-0.62** (0.22)	-0.59** (0.21)	-0.67** (0.21)	-0.65** (0.20)	-0.70*** (0.21)
Tobins Q	-0.09 (0.13)	-0.10 (0.13)	-0.07 (0.13)	-0.07 (0.13)	-0.07 (0.13)
Market turbulence	0.56* (0.22)	0.53* (0.22)	0.50* (0.23)	0.48* (0.23)	0.47* (0.23)
Constant	-4.69*** (0.55)	-4.85*** (0.63)	-4.64*** (0.55)	-4.81*** (0.61)	-4.96*** (0.66)
Observations	853	853	853	853	853
Number of firms	148	148	148	148	148

Robust standard errors in parentheses. Firm and industry effects included but not shown

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.1

**Table 3:** Product recall likelihood - estimated with logit function

Independent variable	Dependent variable is recall likelihood (binary)				
	Model 1	Model 2	Model 3	Model 4	Model 5
M&A activity		0.33** (0.13)		0.33* (0.15)	0.47** (0.14)
CVC activity			0.34* (0.14)	0.31* (0.13)	0.27* (0.13)
CSO presence					-0.13 (0.10)
M&A activity x CSO presence					-0.21* (0.10)
CVC activity x CSO presence					-0.12 (0.12)
Lagged recall likelihood	2.35*** (0.28)	2.32*** (0.28)	2.29*** (0.28)	2.27*** (0.28)	2.26*** (0.28)
Sales	0.72*** (0.17)	0.62*** (0.17)	0.62*** (0.17)	0.54** (0.17)	0.54** (0.17)
R&D intensity	-0.73** (0.26)	-0.74** (0.26)	-1.06*** (0.28)	-1.04*** (0.27)	-1.05*** (0.28)
Firmage	0.28 (0.17)	0.23 (0.18)	0.26 (0.17)	0.22 (0.17)	0.21 (0.18)
Capital intensity	-0.53* (0.22)	-0.50* (0.21)	-0.58** (0.21)	-0.54** (0.20)	-0.59** (0.21)
Tobins Q	-0.10 (0.13)	-0.10 (0.13)	-0.06 (0.13)	-0.06 (0.13)	-0.06 (0.13)
Market turbulence	0.45* (0.21)	0.42* (0.21)	0.39† (0.22)	0.37† (0.22)	0.35 (0.22)
Constant	-4.51*** (0.53)	-4.62*** (0.59)	-4.54*** (0.53)	-4.64*** (0.58)	-4.75*** (0.62)
Observations	853	853	853	853	853
Number of firms	148	148	148	148	148

Robust standard errors in parentheses. Firm and industry effects included but not shown

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.1

## **Managing Product Assortment Differentiation across Online and Offline Marketing Channels**

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**Key words:** Product assortment differentiation, online and offline channel management, channel cooperation and between-channel competition for resources

**Description:** This study focuses on the research question about how manufacturers can effectively manage product assortment across online and offline channels and how the brand manager can assess the optimal level of distinctiveness between online and offline channels on product assortment that can best drive firms' sales performance.

## **Extended Abstract**

### **Research question**

Embracing the advent of digital world, most of brands adopt concurrent usage of online and offline channels in retailing. The debate regarding the synergistic and cannibalizing effects of online and offline channels is ostensive in many industries. However, the investigation and examination regarding how to effectively manage the online and offline channel to optimize manufacture's overall sales profit remains void. The authors address this void by proposing the effectiveness of product assortment differentiation (PAD) strategy on online and offline channel management and exploring the underlying mechanism of how PAD affects channel relationship and sales performance. This study focuses on the following three research questions: (1) How can manufactures effectively manage online and offline channel to optimize overall sales performance? (2) What is the effect of PAD on overall sales performance? (2) What are the underlying mechanisms of such effects?

### **Method and Data**

In study 1, we used multi-informant survey data and yearly category sales data to examine the effects of PAD on channel cooperation and competition. In study 2, we employed panel data with 281,413 observations across 36 months (Jan 2016 to Dec 2018) from home appliance industry to examine the overall effect of PAD on category sales performance.

### **Summary of Findings**

First, we found the curvilinear, inverted U-shape of PAD on category sales-performance (i.e. the sales of one product category of specific brand). With the panel data with 281,413 observations across 36 months from home appliance industry, we find that as the PAD increases, category sales increase first and then decreases, with the optimal turning point at the PAD of 65.10%. That is, a moderate level of PAD across online and offline channels is optimal for



category sales performance, but a high level of PAD actually impedes it. Second, our study confirmed the benefits of PAD on channel cooperation and the costs of it on between-channel competition for resources. Based on the yearly data of home appliance industry and the multi-informant survey replies from channel managers, our study found that PAD has a positive linear effect on online and offline channel cooperation, and affect between-channel resource competition with an exponential rate.

### **Key Contributions**

With the panel data of 281,413 observations across 36 months from the home appliance industry, our study found inverted U-shape effect of product assortment differentiation (PAD) on the overall sales performance. Our study shed lights on how brand managers can assess the optimal level of distinctiveness between online and offline channels on product assortment that can best drive firms' sales performance. In so doing, we respond to the call of Verhoef et al. (2015) by taking the vendor's perspective to examine the effects of PAD on channel cooperation and sales performance. Moreover, given most of the previous studies are limited with in one channel, our study is among the first to examine the effectiveness of cross-channel PAD on overall sales performance. In so doing, our study responds to the Marketing Science Institute's (2018) call to examine the right product mix in the right channel. With the combination of objective sales data multi-informant survey data, our study further reveals both the benefits of PAD on channel cooperation and its costs due to between-channel competition for resources. As such, we contribute to the allocation of product assortments across online and offline marketing channels, which has long plagued channel researchers and decision makers.

# **Consumer Psychology**

**AFFECTIVE STATES, COGNITION, MESSAGE APPEALS, COUNTRY-OF-ORIGIN  
AND QUALITY PERCEPTIONS: RESEARCH PROPOSITIONS**

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**Keywords:** Affect, Cognition, Message Appeals, Country-of-Origin

**Description:** We developed a conceptual framework illustrating our propositions based on the interplay among the valence of the affective stimulus (positive vs negative), information processing mechanisms (systematic vs heuristic), message appeals (utilitarian vs hedonic), and country of origin effects (globalness vs localness) in influencing product quality judgments.

**EXTENDED ABSTRACT**

**Research Question**

In the extant marketing literature, an individual's behavioral intentions towards an object is viewed primarily as a function of her cognitive evaluation of the object, followed by affect, then by behavioral intentions, and finally ending at purchase action (Ajzen and Fishbein 1977; Holbrook and Batra 1987). Contrary to this established knowledge and following Zajonc (1980), we hypothesize that an individual's affective state may influence her behavioral intentions as a pre-cognitive phenomenon. Informed by Zajonc (1980) and Bagozzi, Gurhan-Canli, and Priester (2002), we raise the following research questions: do affective states (positive vs negative) and

cognitive mechanisms (heuristic vs systematic) independently or in tandem drive an individual's purchase decisions, if so, does this vary by degree? If affect is indeed a pre-cognitive phenomenon, how does it drive the cognitive processes in pre-consumption and in leading to action? How might different affective states and cognitive mechanisms interact with marketing stimuli, such as message appeals (hedonic vs utilitarian) and country of origin (COO) (global vs local brand choices) in influencing purchase decisions?

Our work is anchored in interdisciplinary literature drawing from psychology (affective states and cognitive mechanism), marketing (advertising communications using message appeals), and international business (country of origin effects as signaling cues).

### **Summary of Findings**

Studies based on affective states find that individuals in a positive (negative) state are more likely to engage in a heuristic (systematic) process to maintain (regulate) their mood (Batra and Stayman 1990; Chang 2002, 2004). In the negative state, if a product attribute can improve the individual's mood, she will override her need for systematic processing (López and Maya 2012). Furthermore, individuals in a positive (negative) state are less (more) sensitive to incongruency in product cues (Chaiken and Ledgerwood 2012). When message appeal is a product cue, in a positive (negative) state one is more likely to engage in a heuristic (systematic) process and favor products with hedonic (utilitarian) appeals. However, if the product has a hedonic appeal, and one is in a negative state, she will use it as a heuristic cue to improve her affective state (Klein and Melnyk 2016). When the COO signals quality; individuals evaluating a global (local) brand in a positive state will engage in heuristic process that will accentuate hedonic appeals (affect) or globalness (hedonic appeal) of the product. In a negative state and when evaluating a local (global) brand, one will engage in a systematic (heuristic) process regardless of the product's message

appeal.

### **Key Contributions**

We contribute to a deeper understanding of an individual's evaluation process in making purchase decisions. We posit that such an evaluation process may predominantly be affect-driven, which in turn, may influence one's choice of cognitive strategy that will then guide the individual's interpretation of product cues such as message appeals and COO in inferring its quality. Studies in consumer behavior have linked variables, such as task importance and product involvement to an individual's purchase motivation and cognitive strategy choice (Chaiken and Maheswaran 1994; Maheswaran, Mackie, and Chaiken 1992). In our work, however, we use message appeals (hedonic vs utilitarian) as a motivational tool. This will underscore the managerial implications of the affect then cognition then action framework; for example, in product positioning and customer targeting. To demonstrate our proposed association among affective states, cognitive mechanisms, and message appeals, we develop a conceptual framework and then apply it in a COO context. In this sense, our work is in line with evidence suggesting that a product's COO influences its improved quality perceptions as a function of its affect (Dimofte, Johansson, and Ronkainen 2008). Overall, we believe that our framework has high academic, managerial, and policy implications.

## **An Affective Route to Product Evaluation under Ordered Presentation of Product Information**

### **EXTENDED ABSTRACT**

In sequential presentation of product information, determining which form of presentation is better and why is theoretically important (Klink and Smith 2001), and holds managerial implications for effective communication of product value through advertising, packaging, brand extension, and brand alliances. This research proposes a novel affect-based mechanism for product evaluation under ordered presentation.

Research on the impact of attribute order (Schrift et al. 2017), and composite brand alliances (Park, Jun, and Shocker 1996) shows that information presented first typically forms an anchor for evaluation (Hogarth and Einhorn 1992), setting the context for subsequent processing (Adaval and Monroe 2002; Yeung and Wyer 2004). Later information acts to adjust this evaluation. Initial information such as price might also set a frame for the processing of later information (Karmarkar, Shiv, and Knutson 2015).

In this research, we propose a mechanism for product evaluation under ordered presentation based on feelings as information (Schwarz 2012) and demonstrate this through the affect-eliciting nature of a strong brand (Yeung and Wyer 2005) that differentiates it from product attributes. Our model differs from prior models of product evaluation under ordered presentation by relying on affect. Four experiments using real brands, including a mall intercept, demonstrate higher willingness to pay (WTP) under brand-first presentation compared to attribute-first presentation. This effect is mediated by brand-elicited affect, and is observed only for strong brands and under promotion focus.

## Hypotheses

According to feelings as information theory, positive affect enables heuristic processing of information (Pham 2004; Schwarz 2012). Objects that elicit pleasant feelings upon instantaneous appraisal are evaluated more favorably whereas those that elicit unpleasant feelings are evaluated less favourably (Cohen, Pham, and Andrade 2008; Schwarz and Clore 1983).

We argue that when product information elicits affect, as information about a strong brand does (Keller 2003; McClure et al. 2004; Yeung and Wyer 2005), this affect leads to heuristic processing and more favourable product evaluation due to the higher level of positive affect. When attribute information is presented first, we expect systematic processing less favourable evaluation due to the relatively low level of positive affect elicited initially. Such a difference in evaluation is not expected for weak brands as they do not elicit sufficient positive affect.

*H1: Brand-first presentation leads to higher WTP compared to attribute-first presentation.*

*H2: Brand-elicited affect mediates the effect of ordered presentation on WTP.*

*H3: The effect of ordered presentation on WTP is observed for strong brands, but not for weak brands.*

Under prevention focus, the consumer is likely to process the full information systematically (Bless, Mackie, and Schwarz 1992; Pham and Avnet 2004). Hence, both forms of presentation lead to similar evaluation. Unlike this, promotion focus enhances the use of heuristics based on affect (Pham and Avnet 2009), so the effect posited in H1 is likely.

*H4: The effect of ordered presentation on WTP is observed under promotion focus, but not under prevention focus.*

## Studies

Two product categories (backpack and shoes), corresponding strong and weak brands, and attributes were identified through two rounds of pretests (N=5 and N=13).

**Study 1** (N=179) tested H1 and H3 using a 2(order of presentation: brand-first vs. attribute-first)  $\times$  2(brand strength: high vs. low) between-subjects design, with backpack and shoes as within-subjects replicates. Participants provided an open-ended maximum WTP for the product in the local currency (“WTP” going forward), and answered questions on brand attitude, and covariates (time of last purchase and usage frequency).

*Results for backpack.* 5 extreme outliers were removed. Manipulation check for brand strength was successful ( $p < .001$  (1-tailed)). A one-way ANCOVA of WTP for strong brands showed a significant main effect:  $F(1,78)=3.896$ ,  $p=.052$ ,  $\eta_p^2=.048$ ;  $M_{\text{brand-first}}=1,064.5$ ,  $SD=74.0$ ;  $M_{\text{attribute-first}}=854.6$ ,  $SD=75.9$ . A 2 $\times$ 2 ANCOVA showed a significant difference in WTP for strong brand ( $M_{\text{brand-first}}=1,061.5$ ,  $SD=61.6$ ;  $M_{\text{attribute-first}}=867.0$ ,  $SD=63.0$ ;  $F(1,166)=4.898$ ,  $p=.028$ ,  $\eta_p^2=.029$ ), but not weak brand ( $p=.962$ ).

*Results for shoes* are similar. For the main effect,  $p=.061$ ,  $\eta_p^2=.045$ . Pairwise comparison result for strong brand:  $p=.014$ ,  $\eta_p^2=.036$ , and weak brand:  $p=.702$ .

**Study 2** (N=100) tested H2 using a one-way (order of presentation) between-subjects design. Participants indicated affect (3-item measure adapted from Pham et al. 2001) after receiving initial information. They indicated WTP and covariates (brand liking, time of last purchase, usage frequency, relative importance to brand and attributes in a shoe purchase decision).

*Results.* 11 extreme outliers were removed. Hayes (2012) PROCESS model 4 mediation analysis (5000 bootstrap samples, 95% C.I.) was performed. Multivariate regression of order of presentation and affect on WTP showed significant effect of brand-



elicited affect ( $p=.015$ ), non-significant effect of order of presentation ( $p=.210$ ). Indirect effect of order of presentation on WTP was significant (partially standardized LLCI=-.259, ULCI=-.013).

**Study 3** (N=117) tested H4 using a 2(order of presentation)  $\times$  2(regulatory focus: promotion vs. prevention) between-subjects design using backpack. Regulatory focus was manipulated using ideals and oughts (Pham and Avnet 2004) in a procedure that was separately pretested (N=31,  $p=.028$  (1-tailed)).

*Results.* One outlier and one missing value were removed. A 2 $\times$ 2 ANCOVA revealed a significant main effect of order of presentation on WTP:  $F(1,108)=4.464$ ,  $p=.037$ ,  $\eta_p^2=.040$ ;  $M_{\text{brand-first}}=1195.6$ ,  $SD=64.0$ ,  $M_{\text{attribute-first}}=1000.5$ ,  $SD=61.6$ . There was a significant difference in WTP under promotion focus ( $M_{\text{brand-first}}=1231.9$ ,  $SD=88.2$ ,  $M_{\text{attribute-first}}=964.3$ ,  $SD=86.6$ ,  $F(1,109)=4.565$ ,  $p=.035$ ,  $\eta_p^2=.041$ ) but not under prevention focus ( $p=.337$ ).

**Study 4** (N=120) was a mall intercept using a one-way (order of presentation) between-subjects design. Participants read a mobile phone article, with an embedded advertisement for a pair of shoes of a strong brand. Scrolling the page resulted in brand-first (attribute-first) presentation.

*Results.* 3 outliers, 23 who failed a brand recall test, and 5 non-users were removed. A one-way ANCOVA of WTP showed a significant main effect:  $M_{\text{brand-first}}=2770.0$ ,  $SD=200.0$ ,  $M_{\text{attribute-first}}=2115.9$ ,  $SD=202.4$ ;  $F(1,83)=4.882$ ,  $p=.030$ ,  $\eta_p^2=.056$ .

## Conclusions

All hypotheses are supported. This research contributes to the domain of product evaluation under ordered presentation by applying feelings as information theory in the context of the brand vs. attribute dyad. We show that the proposed affective route encompasses two pathways depending on the level of affect, unlike anchoring and

adjustment. The current research holds important managerial implications: packaging of products can impact evaluation by giving the same information differently. Also, eliciting affect by presenting the brand first in advertisements can help enhance evaluation.

(1012 words)

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**Contact Information:**

Session Chair: Rumela Sengupta (University of Illinois at Chicago) and Lagnajita Chatterjee (Worcester State University)

Special Session Papers and Participants:

Paper 1: Exploring the Dimensions of Interactive Agent Personality – Na Kyong Hyun; Samuel D. Bond (*Georgia Institute of Technology*)

Paper 2: Effect of Anticipated Embarrassment on Preference for Interactive Chat Agents – Rumela Sengupta (*University of Illinois at Chicago*); Lagnajita Chatterjee (*Worcester State University*); Jeffrey Parker (*University of Illinois at Chicago*)

Paper 3: Rational and Emotional Voices in Persuasion Contexts: Consumer Responses to Humans Versus Smart Agents – Yegyu Han (*IE University*); Dipankar Chakravarti (*Virginia Tech*)

Paper 4: (Not so) Smart Choices? Smart Device Recommendations Increase Choice of Vice Products – Iman Paul (*Clarkson University*); Rumela Sengupta (*University of Illinois at Chicago*); Samuel D. Bond (*Georgia Institute of Technology*); Satadruta Mookherjee (*NEOMA School*)

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**Keywords:**

AI; anthropomorphism, smart agents, interactive agents.

**Description:**

This session expands our understanding of how AI-driven technology influences consumer decision-making by collectively exploring two pertinent questions that inform the development and implementation of AI-driven interactive agents: (1) Which human-like characteristics do consumers attribute to the agents and how do these attributions, in turn, influence the acceptance of these agents, and (2) How does interaction with the agents impact downstream, consumption-related decisions?

## Session Objectives and Structure

Artificial intelligence (AI)-driven technologies are increasingly becoming an integral part of our daily lives. Today's consumer co-exists and interacts with various "intelligent" agents, like chatbots, and voice assistants (Hoffman and Novak 2018; Schmitt 2019). These agents offer an interactive environment and learn adaptively from their users in real-time. Along with explicit human-like characteristics such as visual appearance, identity cues, and speech synthesis, such features allow users to anthropomorphize the devices (Epley, Waytz, and Cacioppo 2007).

For marketing researchers, the proliferation of intelligent agents has opened a new area of exploration including (but not limited to) the role of anthropomorphism and social perceptions in AI-aided decision-making. Our special session will contribute to this effort by studying the implications of anthropomorphic AI-driven technology for consumer attributions, inferences, and decision making. The session is comprised of four projects, which together cover two pertinent questions that inform the development and implementation of AI-driven interactive agents.

First, which human-like characteristics do consumers attribute to AI-driven agents and how do the human-like attributions, in turn, influence the acceptance of these agents? In the first paper, Hyun and Bond identify two primary factors and seven underlying dimensions that characterize the personalities attributed to "interactive agents.". In the second paper, Chatterjee, Sengupta, and Parker examine the influence of consumer emotions (negative vs. positive self-conscious emotions) on the willingness to use anthropomorphic "interactive chat agents." Second, how does interaction with intelligent agents impact the downstream consumption-related decision? In the third paper, Han and Chakravarti compare the effectiveness of two different recommendation styles (emotional versus rational) of "smart agents" (vs. humans) in driving purchase intentions and consumer trust. Finally, Paul, Sengupta, Bond, and Mookherjee examine how anthropomorphic "smart device" recommendations influence consumers' perceived autonomy and subsequent willingness to purchase vice products.

## Expected Contributions

With this session, we hope to contribute to the evolving conversation around the anthropomorphism of AI-driven interactive agents and the consequences of that anthropomorphism for marketers and consumers. We provide evidence that explicit cues can be employed successfully to make agents seem more "human-like and can even lead consumers to perceive specific personality traits like "friendliness" and "reliability" (paper 1 and 2). Communication is fundamental to interacting with these devices, and we demonstrate that communication style has a powerful influence on the way their personalities are perceived (papers 1 and 3). Although anthropomorphism is usually intended to facilitate consumer-agent interactions and improve consumer experience, we show that it may also have negative consequences for both agent acceptance and consumer well-being. For example, consumers may avoid using anthropomorphic agents for information search as a result of anticipated embarrassment (paper 2). Product recommendations from an anthropomorphic device may diminish consumers' perceived autonomy in the decision-making process, providing them with a

justification to indulge in vices (paper 4). Collectively, the four papers enhance marketing understanding of an important, emerging technology domain, by identifying how it impacts specific consumer attributions, perceptions, and downstream choices.

### **Audience**

This special session will be of interest to a diverse audience that includes scholars studying smart devices, the “Internet-of-Things,” and AI- driven technology, as well as scholars interested in product anthropomorphism, brand perceptions, and user engagement. For practitioners seeking to implement such technology in their marketing and communication strategies, the session will provide both high-level insights and specific, actionable examples.

We briefly describe each paper below.

### **Exploring the Dimensions of Interactive Agent Personality**

#### Introduction

Artificially intelligent devices are becoming rapidly established in the lives of ordinary consumers. Our research focuses on a subset of those devices, “interactive agents” (or IAs; e.g., Alexa, Siri, Roomba), which we define as “modern technological tools that perform one or more tasks and interface with their users in mutual and dynamic ways”. Although consumers interact, form relationships with, and often humanize these devices, existing research provides little insight into how they are socially perceived (Schmitt, 2019). We ask: What personality traits do consumers attach to these devices? Are IA personality conceptually and empirically distinct from other social constructs? How do IA characteristics influence perceptions of its personality?

Early research on social perceptions of interactive technology produced social response theory (Reeves & Nass, 1996). The theory proposed that although we recognize that machines do not possess feelings, intentions, or motivations, we nonetheless perceive those machines as “social actors” and respond in reflexive, personal manner (Moon, 2000). Recent research emphasizes how consumers endow robots and advanced machines with humanlike traits (e.g., “warmth,” “mindfulness”; Tapus & Matarić, 2008; Waytz, Heafner, & Epley, 2014). Importantly, however, studies tend to focus on a very narrow subset of traits, which are adopted directly from human or brand personality theories. The main objective of our research was to construct a parsimonious, psychometrically valid instrument that captures perceptions of IA personality.

#### Methods and Results

We began with the approach laid out by Aaker (1997), and substantially adapted it to reflect our IA context and modern practices in scale development. Below we summarize our three stages, which included seven incremental studies.

*Item Generation.* The goal of the first stage was to compile an exhaustive list of adjectives that might be applicable to IA personality. 174 undergraduates ( $MAge = 21$ ) read our



definition of IAs, then were prompted with eight specific examples. For each example, participants wrote all the trait adjectives that came to mind. Collapsing and eliminating duplicates yielded a set of 634 unique items. From this set, we chose 128 adjectives appearing more than four times. We then added 60 items from scales of human (Costa & McCrae, 1992; Goldberg, 1992), brand (Aaker, 1997; Geuens et al., 2009), and pet personality scales (Gartner, 2015), yielding a comprehensive set of 188 trait adjectives.

To identify the adjectives most relevant to our definition, we presented the set to a sample of 160 respondents ( $M_{Age} = 34$ ). After viewing the IA definition and examples, respondents rated the extent to which each of adjective “can be used to describe interactive agents” (1 = *Not at all*, 7 = *Very descriptive*). After applying a conservative cutoff mean of 3.5, we retained 128 items.

*Refinement and Dimension Identification.* Based on pretesting, we selected six products that are widely familiar and agreed-upon examples of IAs. 123 undergraduates ( $M_{Age} = 20$ ) were asked to rate the extent to which the 128 items were descriptive of each IA.

The resulting 128 x 128 correlation matrix was factor-analyzed using PCA with varimax rotation. Based on eigenvalues and scree plots (variance explained = 57.62%), a two-factor model with 22 items was selected. The two factors were clearly interpretable as “friendly” and “reliable”. Applying a similar procedure at the factor level revealed four facets underlying the “friendly” factor (“genial,” “funny,” “playful,” and “creative”) and three facets underlying the “reliable” factor (“attentive,” “efficient,” and “fast”).

*Nomological Validity.* We asked 243 participants ( $M_{Age} = 35$ ) to evaluate a specific IA on both the 22-item measure and 16 well-known measures of social perception, anthropomorphism, personality, and attitude. Analyses again showed good fit for our two-factor model, and also showed adequate convergent and discriminant validity for theoretically overlapping constructs.

Finally, we used an experiment to investigate specific proposed antecedents of IA personality. 188 undergraduates ( $M_{Age} = 20$ ) read a description of a fictitious IA (“Eva”), then listened to audio messages from “Eva” that varied in emotion and formality. Perceptions of “friendliness” (but not “reliability”) were higher when the message was highly emotional ( $M = 3.26$  vs.  $2.61$ ,  $p < .05$ ) or informal ( $M = 3.07$  vs.  $2.65$ ,  $p = .06$ ).

## Conclusion

Our research represents an initial step towards formal understanding of personality attribution in the context of modern, interactive consumer technologies. For marketers of IA products, our findings suggest that careful construction of product “personalities” may provide a viable means of differentiation, diversification, and customization to unique target segments.

## Effect of Anticipated Embarrassment on Preference for Interactive Chat Agents

Artificial intelligence has fueled the rise of interactive chat agents, heretofore labeled “ICA” (e.g., IBM Watson Assistant). Several websites use these agents, often called “chatbots,” to assist customers. These chatbots offer an interactive environment, respond to specific customer questions, and address their concerns. Advances in technological capabilities make these agents seem more human-like with respect to visual appearance, speech synthesis, and reasoning (Abdul-Kader and Woods 2015; Li et al. 2016), which allows their users to anthropomorphize them (Epley, Waytz, and Cacioppo 2007). Although these agents afford many opportunities, they also have potential negative consequences for their users, such as a perceived loss of decision autonomy, and increased privacy concerns (André et al. 2018; Ng et al. 2020). Here, we examine the implications of anticipating a negative self-conscious emotion (i.e., embarrassment) during an online search on the likelihood of using an anthropomorphic ICA for conducting the search.

Extant research shows that anthropomorphism leads people to respond to computers as they would other humans (Nass and Moon 2000; Reeves and Nass 1996) and, thus, interacting with human-like (vs. machine-like) ICA results in stronger feelings that one is interacting with another human (Kim and Sundar 2012). Therefore, anthropomorphizing ICA promotes a feeling of social presence. Although social presence generally encourages emotional closeness and/or social connectedness and therefore favorable attitudes and behaviors towards the anthropomorphized entity (Bente et al. 2008; Biocca, Harms, and Burgoon 2003; Palmer 1995; Rice 1984), it may not be preferred under certain circumstances, for example when social transgressions are anticipated.

Embarrassment is an emotional reaction typically arising in response to public violations of social convention (e.g., social faux pas such as tripping in public; Keltner and Buswell 1997; Tangney and Tracy 2012). It occurs when an individual becomes aware of a transgression related to his/her public-self and others' evaluations of the transgression (Edelmann, 1985; Miller, 1995). As a result, social presence plays an important role in creating embarrassment (Dahl, Manchanda, and Argo 2001). Accordingly, avoiding social contact is used as a common mechanism to evade embarrassing situations (Brown 1970; Chen and Pham 2019).

Therefore, we propose that when consumers anticipate experiencing embarrassment while conducting an online search, they will be less likely to use an anthropomorphic ICA compared to traditional search aids like search bars. This will result from a tendency to avoid social presence while engaging in an activity that might be embarrassing.

Study 1 (N=394) had a 2 (anticipated-emotion: embarrassment vs. pride)  $\times$  2 (search-aid: search bar [SB] vs. interactive chat assistant [ICA]) between-subjects design. Pride, a positive self-conscious emotion, was chosen as a contrast to embarrassment because, unlike embarrassment, pride does not result in need to avoid social attention (Leary 2007). Participants in the embarrassment (pride) condition were asked to imagine that they had been *experiencing public incontinence (thinking of donating to a cause)* and were looking for related information online. They were asked how likely they were to complete the search using either an ICA or SB (1=not likely at all to 9=very likely). Participants also completed a 10-item perceived humanness

measure adopted from (Waty et al. 2010) for their respective search aid ( $\alpha=.98$ ). The ICA was perceived as significantly more humanlike than the SB ( $M_{ICA}=4.50$  vs.  $M_{SB}=2.76$ ,  $p<.001$ ). A two-way ANOVA, revealed a significant interaction between anticipated-emotion and search-aid ( $F(1, 390)=7.05$ ,  $p=.008$ ). Participants were less likely to use an ICA (vs. SB) to search for embarrassing questions ( $M_{ICA}=5.53$  vs  $M_{SB}=7.49$ ,  $p<.001$ ). Conversely, no significant difference was observed for *pride* condition ( $M_{ICA}=5.68$  vs  $M_{SB}=6.33$ ,  $p=.28$ ).

Study 2 (N=401) utilized a 2 (search-aid: SB vs. ICA)  $\times$  2 (scenario-type: sexually transmitted disease [STD] vs. furniture) mixed design. Search-aid was manipulated between subjects while scenario-type was counterbalanced within-subject. Participants in STD (furniture) scenario were asked to imagine that they are looking for *a new product to prevent STD (DIY instructions to assemble furniture)*. Like study 1, they were asked how likely they were to complete the search using an ICA (vs. SB). Participants were also asked to rate the extent to which they felt (1) embarrassed and (2) prideful while searching for the information (1=not at all, 9=very). Participants expected to experience more *embarrassment (pride)* in the *STD (furniture)* scenario than in the *furniture (STD)* scenario (embarrassment:  $M_{STD}=4.90$ ,  $M_{furniture}=2.36$ ,  $p<.001$ ; pride:  $M_{STD}=2.99$ ,  $M_{furniture}=3.54$ ,  $p<.001$ ). A mixed-design ANOVA revealed a significant interaction ( $F(1, 395)=9.40$ ,  $p=.002$ ) between search-aid and scenario-type. Participants were significantly more likely to use the SB than the ICA in the *STD* scenario ( $M_{SB}=6.32$ ,  $M_{ICA}=5.22$ ,  $p<.001$ ), while no significant difference arose in the furniture scenario ( $M_{SB}=6.99$ ,  $M_{ICA}=6.63$ ,  $p=.093$ ).

Together, the results provide initial support for the negative influence of anthropomorphizing ICA on users' preference for interacting with them.

### **Rational and Emotional Voices in Persuasion Contexts: Consumer Responses to Humans Versus Smart Agents**

Smart devices with embedded voice recognition software and AI technology for emotion expression are enabling more natural consumer-device interactions and facilitating consumer acceptance of smart agents like Amazon's Echo (Ezhilarasi and Minu 2012; Hirschberg and Manning 2015). However, will traditional communication principles (e.g., Petty et al. 2003) govern the impact of persuasive messages delivered by smart devices versus humans?

We argue that identical purchase recommendations, delivered in a rational versus emotional voices, will elicit different consumer responses when ascribed to a human versus a smart agent. Research shows that people apply different moral norms to humans versus robots (Malle et al. 2015) and express negative emotions more to chatbots than humans (Hill et al. 2015). Consumers categorize smart agents and humans differently (LaMarre 2013; Schmitt 2019). This ontological distinction may lead consumers to anticipate that humans (but not smart devices) will use emotion in purchase recommendations, leading to different purchase intent and trust outcomes.

Specifically, we predict that when consumers interact with a human agent, an identical recommendation delivered in an emotional (versus rational) voice will elicit higher levels of trust and purchase intent. Study 1 used 213 M-Turkers randomly assigned to one of four between-subject study conditions: 2(voice tone: rational vs. emotional)  $\times$  2(voice ascription: human vs. smart agent). A trained actor created an iPad purchase script recorded in a rational or an emotional voice. Voice ascription was manipulated by telling participants that they were purchasing the iPad

on a website supported by a human (versus a smart) agent. Participants listened to the agent's vocal instructions (e.g. "Which color will you choose, silver or space gray?") and clicked designated buttons (e.g., silver) to respond. After the iPad was ordered, the agent recommended that the participant consider purchasing a product insurance policy. Multiple measures elicited willingness to purchase the policy ( $r=.80$ ) and the agent's trustworthiness ( $\alpha=.98$ ).

When the human actor's voice was ascribed to a human agent, purchase intentions were higher for a recommendation delivered in an emotional ( $M_{\text{emotional}}=3.30$ ,  $SE_{\text{emotional}}=.26$ ) versus a rational voice ( $M_{\text{rational}}=2.36$ ,  $SE_{\text{rational}}=.25$ ;  $p=.008$ ). However, when the voice was ascribed to a smart agent, purchase intentions did not differ by vocal tone ( $M_{\text{rational}}=3.16$ ,  $SE_{\text{rational}}=.26$ ,  $M_{\text{emotional}}=3.30$ ,  $SE_{\text{emotional}}=.24$ ;  $p=.70$ ). Trust perceptions were similarly patterned. When ascribed to a human, the emotional voice ( $M_{\text{emotional}}=5.33$ ,  $SE_{\text{emotional}}=.22$ ) generated higher trust than the rational voice ( $M_{\text{rational}}=3.90$ ,  $SE_{\text{rational}}=.21$ ;  $p<.001$ ). However, for the smart agent, voice did not affect trust ( $p=.13$ ). Similar findings emerged in a study using rational and emotional variants of a mechanical voice ascribed to human versus smart agents.

Study 2 examined how explicitly activating persuasion knowledge (PK) influences consumers' trust and purchase intentions for identical purchase recommendations delivered in a rational or emotional voice, ascribed to a human versus a smart agent. With PK active, consumers may be more likely to infer ulterior motives and manipulative intent for a human (versus a smart agent (Campbell and Kirmani 2000; Bobinski et al. 1996). We manipulated PK by asking some participants ( $N=548$  M-Turkers) to evaluate a short article on marketing tactics, whereas others in a control condition evaluated an article on birds. The participants were then randomly assigned to one of the four conditions described in Study 1. Following an iPad purchase, they considered purchasing a product insurance policy and purchase intention ( $r=.85$ ) and trust ( $r=.89$ ) were measured as before.

When the voice was ascribed to a human, activating PK lowered purchase intentions regardless of whether the voice was rational ( $M_{\text{control}}=4.00$ ,  $SE_{\text{control}}=.25$ ;  $M_{\text{pk-active}}=3.24$ ,  $SE_{\text{pk-active}}=.24$ ,  $p=.027$ ) or emotional ( $M_{\text{control}}=3.82$ ,  $SE_{\text{control}}=.24$ ;  $M_{\text{pk-active}}=3.20$ ,  $SE_{\text{pk-active}}=.25$ ,  $p=.075$ ). However, activating PK had no effect on purchase intention when the voice (rational or emotional) was ascribed to a smart agent ( $p's>.40$ ). Notably, even with PK active, an emotionally voiced recommendation from a smart agent (versus a human) elicited higher purchase intent ( $M_{\text{smart-agent}}=3.97$ ,  $SE_{\text{smart-agent}}=.24$ ;  $M_{\text{human-agent}}=3.20$ ,  $SE_{\text{human-agent}}=.25$ ,  $p=.027$ ). The effects on trust were consistent. With PK active (versus control), an emotional voice ascribed to a human agent elicited lower trust ( $M_{\text{control}}=5.46$ ,  $SE_{\text{control}}=.18$ ;  $M_{\text{pk-active}}=4.82$ ,  $SE_{\text{pk-active}}=.19$ ,  $p=.015$ ). Trust in the rational voice also fell, but not significantly ( $p=.15$ ). With PK active, participants trusted an emotional recommendation less when ascribed to a human versus a smart agent ( $M_{\text{human-agent}}=4.82$ ,  $SE_{\text{human-agent}}=.19$ ;  $M_{\text{smart-agent}}=5.28$ ,  $SE_{\text{smart-agent}}=.18$ ,  $p=.079$ ). There were no corresponding PK effects on trust in a smart agent ( $p's>.22$ ).

In summary, ontological differences create different consumers' expectations for smart agents versus humans in purchase interactions. These drive differences in purchase intentions and trust even with identical voice and persuasive message content. Our findings have implications for designing voices for smart agents in purchase support contexts.

## (Not so) Smart Choices? Smart Device Recommendations Increase Choice of Vice Products

Consumer “smart” devices are increasingly becoming part of our daily lives. Such devices have some inherent “human-like” characteristics (e.g., two-way communication, highly personalized interactions and the ability to learn adaptively from users over time). A rapidly growing literature examines the extent to which consumers anthropomorphize these devices (Hoffman and Novak 2018). Building on prior work by addressing the implications for smart devices usage, we ask the following research question: How does assistance from “smart” devices impact decision making for vice and virtue products?

A fundamental principle of the consumer anthropomorphism literature is that when interacting with anthropomorphized products, consumers spontaneously apply norms typically reserved for judging other people (Aggarwal and McGill 2007). In (human) interpersonal settings, receiving assistance often reduces perceived autonomy and situational responsibility (DePaulo, Brittingham, and Kaiser 1983). Building on these ideas, we propose that receiving a smart device recommendation results in a perceived loss of autonomy in the decision process.

Because consumers perceive vices products (e.g., tasty but unhealthy snacks) to be normatively “bad,” their acquisition and consumption often induces guilt (Mukhopadhyay and Johar 2009). Given that guilt depends on a sense of personal responsibility, it is substantially lessened in situations where autonomy is restricted (Chen and Sengupta 2014). Linking this idea to the above arguments we propose that for consumers with a high tendency to anthropomorphize, smart device recommendations increase the likelihood of purchasing vice products. We show evidence that this increase is mediated by experienced loss of autonomy during the decision-making process.

Study 1 (N=215) provided an initial investigation of our argument. The study utilized a product purchase scenario with a 2 (source: *smart* vs. *self*) X 2 (product type: *vice* vs. *virtue*), between-subjects design. Participants indicated higher (lesser) likelihood of purchasing a vice (virtue) product (unhealthy versus healthy juice) when they received a notification from their smart device as compared to when they discovered the deal on their own (Vice:  $M_{\text{self}}=6.06$  vs.  $M_{\text{smart}}=5.19$ ,  $p<.05$ ; Virtue:  $M_{\text{self}}=6.06$  vs.  $M_{\text{smart}}=5.19$ ,  $p<.05$ ).

In Study 2 (N=447), we included an *anthropomorphism tendency* measure (adapted from Waytz et al. 2010) to capture individual differences in the tendency to anthropomorphize nonhuman objects. Second, we added a *dehumanization* condition (see below; Mourey, Olson, and Yoon 2017). The study utilized a 3 (source: *smart* vs. *conventional* vs. *dehumanized smart*) X 2 (product type: *vice* vs. *virtue*) X anthropomorphism tendency (measured), between-subjects design. In the scenario, participants had an opportunity to replenish their stock of either a *vice* food (dessert) or *virtue* food (fruit bowl). The opportunity was prompted either by remembering the product was depleted (*conventional condition*) or by receiving a text message from their smart refrigerator (*smart conditions*). Prior to the decision, participants in the *dehumanized smart* condition were told to remember that even though smart devices perform certain humanlike functions, they are ultimately “just machines.” Results revealed a 3-way interaction ( $F(2, 372)=6.67$ ,  $p=.001$ ) consistent with our hypotheses. In the *vice* conditions, participants high in anthropomorphism tendency (+1 SD) were more likely to purchase the dessert when they

received a smart device reminder, but the increase disappeared when the device was dehumanized ( $M_{\text{smart}}=3.10$ ,  $M_{\text{conventional}}=2.42$ ,  $M_{\text{dehuman}}=1.74$ ,  $p<.05$ ). In the *virtue* conditions, purchase likelihood was similar for all source conditions.

In study 3 (N=174), we investigated the process variable of autonomy perceptions. The study utilized a 2 (source: *smart* vs. *conventional*) x 2 (product type: *vice* vs. *virtue*) x anthropomorphism tendency perception (measured) design and presented a scenario similar to Study 2. After making their purchase decision, participants completed three Likert items measuring autonomy perception (“I felt that it was my own choice...”, “I believe that I had a choice...”, “I would be completely responsible ...” ( $\alpha=.80$ ). Results revealed a 3-way interaction ( $F(2, 161)=17.44$ ,  $p<.001$ ) consistent with hypotheses and findings of Study 2. In the *vice* conditions, participants high in anthropomorphism tendency (+1 SD), were more likely to purchase the dessert after receiving a smart device reminder ( $M_{\text{smart}}=5.07$ ,  $M_{\text{conventional}}=2.48$ ,  $p<.001$ ). In the *virtue* conditions, participants were less likely to purchase the fruit bowl after receiving a smart device reminder ( $M_{\text{smart}}=7.66$ ,  $M_{\text{conventional}}=8.99$ ,  $p=.01$ ). We tested our proposed process with a mediation analysis (PROCESS model 21; Hayes 2018) that incorporated the perceived autonomy measure as the mediator. Results revealed evidence of moderated mediation ( $b=.11$ ,  $LLCI=.073$ ,  $ULCI=.510$ ), and after accounting for perceived autonomy, the relationship between source and purchase likelihood became nonsignificant ( $b=.25$ ,  $LLCI=-.028$ ,  $ULCI=.965$ )

Together, our findings suggest that increasing reliance on smart devices has implications for consumer autonomy that merit greater examination.

**Note:**

References are available upon request.

## **BEWARE! SMARTPHONE OVERUSE MIGHT CHANGE YOUR THINKING STYLES**

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**Keywords:** Smartphone overuse, Thinking style, Intuitive thinking, Analytical thinking, Cognitive performance,

**Description:** Smartphone overuse correlates positively with an intuitive thinking style and negatively with an analytical thinking style.

### **EXTENDED ABSTRACT**

#### **Research Question**

Smartphones have penetrated every aspect of people's daily lives. When they spend more time on leisure activities available on their smartphones, they have less time for study, work, family, and their own mental and physical health. Prior research has identified the adverse effects of smartphone overuse on an individual's psychological state such as loneliness (Mahapatra, 2019), depression, anxiety (Elhai et al., 2020), and poor sleep quality (Demirci et al., 2015).

Beyond these emotional and physical effects, smartphone overuse also hinders people's cognitive capacity (Ward et al., 2017) and cognitive performance (Barr et al., 2015).

Although smartphone overuse and its consequences have prompted substantial attention in recent years (Clayton et al., 2015; Ng et al., 2020), questions remain, including whether smartphone overuse might impact how people process information and which thinking styles they use. Smartphone overuse hinders cognitive performance, as reflected in students' grades (Li et al., 2015; Nayak, 2018). However, the underlying mechanism for explaining this phenomenon has remained unclear. Therefore, we seek to provide new empirical evidence pertaining to how smartphone overuse might affect thinking styles. In particular, we draw on dual processing theory (Epstein et al., 1996; Evans, 2008) to predict the magnitude and direction of the effects of smartphone overuse on consumers' thinking styles.

## **Method and Data**

The primary purpose of our study is to examine potential associations between smartphone use and thinking styles and reveal the underlying driver of such associations. We aim to demonstrate the relationships between smartphone use and thinking styles through three steps. In step 1, we explore whether the associations between smartphone use and thinking styles exist. In step 2, we examine whether smartphones are more likely to be used for activities that enhance the experience and increase joy, as suggested by the literature (Gupta et al., 2016). In step 3, we investigate whether the same set of activities is more likely to elicit the intuitive than analytical thinking style.



Participants self-reported the number of hours per day they use their smartphones and completed a thinking style scale. They then selected the top three activities they are most likely to perform on their smartphone from a list of eight activities. At the end of the survey, participants provided demographic and socioeconomic information about their age, gender, education level, marital status, annual household income, and family structure (i.e., with or without children). Our data were collected from a nationally representative survey of individuals living in China. The sample size is 13,192 (49.9% female;  $M_{age} = 36$ ).

### **Summary of Findings**

The average daily use of smartphone in our study is 5.47 hours. The average score of intuitive thinking is 4.318, and analytical thinking is 5.204. Regression results show that daily usage of smartphones correlates positively with intuitive thinking ( $\beta = .012, p < .01$ ) and negatively with analytical thinking ( $\beta = -.019, p < .001$ ). Most activities that people engage in on their smartphones are social or leisure activities. The top five such activities are *using social media, listening to music, shopping, playing games, and watching videos*. Social media emerges as the most performed activity on people's smartphones with 70% of participants chose it as one of their top three most frequently performed activities. The logistic regression results affirm that the activities people perform most frequently on their smartphones are more intuitive than analytical. Further findings indicate that the smartphone overuse group engages in more intuitive thinking ( $M_{overuse} = 4.409$  vs.  $M_{non-overuse} = 4.303, p = .008$ ) and less analytical thinking ( $M_{overuse} = 5.089$  vs.  $M_{non-overuse} = 5.224, p < .001$ ) than the non-overuse group. Age also moderates the impact of smartphone use on analytical thinking such that the negative impact of smartphone overuse on analytical thinking is weaker among older people.

## **Key Contributions**

With data collected from a large-scale nationwide study, the present research expands knowledge in the area of smartphone use and thinking styles and makes several significant contributions to the literature. First, to our knowledge, it is the first study to reveal the previously undocumented association between smartphone overuse and thinking style. In particular, prolonged overuse of smartphones leads people to employ more intuitive thinking and less analytical thinking.

Second, we identified the underlying drivers of such associations are: 1) people engage disproportionately more in smartphone activities for leisure and social interaction purposes, and 2) during these activities, they tend to rely on intuitive rather than analytical thinking. Thus, prolonged smartphone overuse likely enhances consumers' proneness to engage in intuitive thinking and attenuates their reliance on analytical thinking.

Third, we find that the effects of smartphone overuse on thinking style depend on people's age. Specifically, smartphone overuse has a greater (lesser) effect on intuitive (analytical) thinking among older individuals than younger individuals. This set of baseline information also allows policymakers or health care programs to develop regulations and customized programs to address pressing concerns about smartphone overuse.

References are available upon request.

**CHICKEN VERSUS EGGS: DO BRAND COMMUNITY MEMBERS EVOLVE INTO  
PRODUCT CATEGORY COMMUNITY MEMBERS?**

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Keywords: online brand community, superordinate identity, netnography

Description: Based on a netnography of brand and product community members, we find that community memberships are very dynamic over time, contradicting prior brand community literature suggesting a static view of community membership, social identity literature suggesting product category membership ultimately fractures into brand membership, and the common ingroup identity model suggesting brand community membership evolves into product category membership.

## **EXTENDED ABSTRACT**

### **Research Question**

The extant literature offers divergent views on the nature of brand community and product category community membership. The existing brand community literature tends to take a static view of community memberships. This would suggest members stick with a particular community over time. In contrast, the social identity literature suggests the possibility that product category members will fracture and evolve into brand community members over time. If so, product category members would be prime candidates for recruitment by marketers seeking to build up their brand community. However, the Common Ingroup Identity Model suggests the exact opposite. It indicates that brand community membership may just be the first step on the road to evolving into a superordinate product category member.

These possibilities raise fundamental questions about the nature of brand communities: Are brand community members simply consumers predisposed to focus on a single brand? Or are they evolved product category community members who have developed an admiration for a particular brand? Or, are brand community members nascent product category members whose interests will eventually evolve and lead them to become product category community members?

### **Method and Data**

Due to the limited existing research in this area, the netnography methodology provides a means for exploring and developing new insights into the behavior of community members, allowing us to develop a detailed and thorough understanding of the changes in community member behavior over time and across communities. Publicly available user information and interactions were gathered from online forums representing both brand communities and the

overarching product category community. The post history of each user sampled was copied into Word documents showing the post title, preview of the message, date, thread information, and number of replies when available. Documents were then combined, and the data cleaned. Every post of each user was coded based on general or brand forum participation. Several measures for each user were recorded including the type of forum post they started in, what type of forum they posted in upon their first switch, as well as what type of category they would be considered in to start and end in. The resulting dataset contained the chain of activity for each user (n=46). As needed, user posts were broken into quartiles to place them into group identifications.

### **Summary of Findings**

Results show that community memberships are far from static. Over a three year period, membership evolved such that the majority of users showed changes over time (82%). However, this does not mean that members “switched” in the sense that they abandoned their original memberships. The findings indicate that the majority of users also remained in the community they first held, regardless of brand, multi brand, or general product category. Only 22% of users transitioned to a new community while abandoning their original community.

For those who began as product category members, these members remained in the general product category community. In fact, no members of the general product category abandoned it to become brand community specific members. Instead, they retained this membership while extending their participation over time to include brand specific communities. In terms of whether users started as a product category member or a brand community member, there were similar results across brand communities. In aggregate, it was more common for a user to begin as a brand community member than a product category member.

### **Key Contribution**

For managers attempting to build and manage a brand community, these findings provide important new insights. While most users began as brand community members, this proved just be a starting point for many. Over time, brand community members tended to expand their participation to overlap across multiple brands and include the product category community. This suggests that brand communities serve as the “egg” which later hatches into a product category member. Since such overlap erodes the loyalty and oppositional loyalty of brand community members, marketers should seek to inhibit interaction with product category members where possible. For example, when creating a firm-controlled brand community website, marketers should avoid including a “general” forum where other brands can be discussed.

The results also provide marketers with insights into who they should focus on recruiting in order to build a brand community. Specifically, product community members are poor prospects given the lack of evidence of product category members evolving into exclusive brand community members. Instead, marketers should focus on consumers who have yet to join any community.

References are available upon request.

**Consumed With Sleep?  
The Effects of Sleep Deprivation on Consumers' Indulgent Choices**

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**Keywords:** Sleep deprivation, indulgent behavior, self-control.

**Description:** Across two studies, including a behavioral study, this research shows that sleep-deprived (vs. non-sleep-deprived) consumers are more likely to engage in indulgent consumptions (such as hedonic over utilitarian choices, vices over virtues, immediate over delayed gratifications) because sleepiness diminishes self-control.

**EXTENDED ABSTRACT**

**Research Question**

Consumer's sleepiness is common in today's society. Sleep deprivation negatively impacts an individual's physical health and affects his/her motivation and behavior. How consumers' sleepiness influences indulgent choices is still an unexplored research area. When and why sleepiness leads to indulgent choices? This research posits that sleep-deprived (vs. non-sleep-deprived) consumers are more likely to engage in indulgent consumption because they lack

the willpower to resist temptations. Consequently, they will prefer hedonic over utilitarian choices, vices over virtues, and immediate over delayed gratifications.

### **Method and Data**

In this study, two lab studies with American young adults are completed. Study 1 is designed to examine the effect of sleep deprivation on consumer's indulgent choices. The main objective of Study 2 is to test whether sleep-deprived (vs. not sleep-deprived) consumers will make more indulgent choices because of a lack of self-control. In study 2, we tested our hypothesis in two different consumption contexts: promotional offer (hedonic versus utilitarian) and real choice behavior (unhealthy versus healthy snack).

### **Summary of Findings**

Study 1 demonstrates that sleep-deprived consumers are likely to buy a hedonic than a utilitarian slipper chair. Study 2 supports our hypothesis that self-control failure mediates the effect of consumer's sleep deprivation on their indulgent choices (vice over virtue).

### **Key Contributions**

Consumers' sleepiness, a mostly unexplored factor, is commonplace in today's society. This research bridges indulgent choices, sleep-deprivation, and self-regulation research to provide insights into how consumers' sleepiness influence indulgent choices. The findings will help marketers plan STP retail strategies (segmenting, targeting, and positioning) for different products/services based on consumers' sleepiness and their motivation for the product-use situation. Additionally, policy-makers might use the findings to design and deploy preventive



health campaigns to motivate sleep-deprived consumers (e.g., late-night health workers) to engage in less indulgent living.

References are available on request.

# **Cure or Curse? Exploring the Dark Side of Social Media Amidst the COVID-19 Pandemic (and Beyond) and How Consumers' Resilience Can Mitigate Its Effect**

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**Keywords:** consumers' resilience, social media overload, (techno) stress, well-being, COVID-19, digital stressors

**Description:** This research investigates (overlooked) digital stressors and the role of resilience amidst the COVID-19 pandemic and also aims to advance the notion that resilience generally helps combat the challenges in today's digital environment.

## **EXTENDED ABSTRACT**

### **Research Question**

With the outbreak of COVID-19, consumers are not only experiencing a global health emergency, but also extraordinary influences in their daily lives. Media consumption increased, with more than 40% of consumers having spent longer on social media globally (Mander, Buckle, and Sekuj 2020). Social media plays a vital role in this pandemic as it enables consumers to maintain some sense of normalcy and feel close to peers despite the separation.

While it has been acknowledged that the pandemic generally leads consumers to experience frequent bouts of stress (Brooks et al. 2020), the stressors related to (increased) social media consumption have been overlooked, although there is evidence from IS research that social media can negatively affect mental health. Moreover, strikingly, marketing research has not yet explored how consumers can become *resilient* to such consumption-related stress, although resilience has long been identified as an effective buffer against adversity in adjacent research fields.

Therefore, this research investigates (overlooked) digital stressors and the role of resilience amidst the COVID-19 pandemic. More precisely, based on the transactional theory of (techno)

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stress, it examines the impact of social media-induced overload on consumer well-being and, based on the psychological resilience theory, the mitigating power of consumers' resilience.

### **Method and Data**

An empirical study was conducted involving 241 social network users (female=45.2%,  $M_{age}=47.72$ ,  $SD_{age}=16.02$ ) recruited via a German online consumer panel in April 2020. For measurement purposes, established multi-item scales (Luqman et al. 2017; Maier et al. 2015; Topp et al. 2015; Smith et al. 2008) were used. Where necessary, scale items were slightly modified to fit the COVID-19 context.

To validate the measurement model, the constructs' reliability and validity were tested. Cronbach's Alphas values, composite reliabilities, standardized factor loadings, and average variances extracted (0.5) exceeded the recommended thresholds, signifying sufficient reliability and convergent validity. Discriminant validity was also proven (Fornell and Larcker 1981) and common method variance was uncritical (Lindell and Whitney 2001).

For hypotheses testing, structural equation modelling (maximum likelihood estimation) was employed. The structural model including its control variables showed a good fit. The findings indicate that information overload and social overload increase strain and that strain decreases well-being. Moreover, resilience decreases information overload as well as social overload and increases well-being. Bootstrapping analysis using 5,000 samples (Hayes 2013) further reveals that strain mediates the relationship between both types of overload and well-being.

### **Summary of Findings**

This research uncovers the impact of overlooked daily stressors that consumers face amidst the COVID-19 pandemic. Specifically, it demonstrates that perceived information and social overload fueled by social media during the pandemic endanger consumers' well-being through increasing strain. Herein, this study provides ground for future marketing research by adding the perspective of overload stressors (present particularly during COVID-19, but also beyond) to the claim that the digital world is prone to fostering unseen negativity (Belk 2013).

Furthermore, this research establishes the concept of resilience in the consumer realm. By doing so, it follows Simonson's (2015) request to integrate new constructs into marketing studies. The findings show that consumers' resilience directly inhibits social media-induced stressors and fosters well-being. Subsequent studies will additionally aim to examine resilience's potential moderating effects. Rather than directly mitigating strain (as assumed – but rejected – here),

resilience may serve as a shield to overload perception by moderating the intensity of strain (Fletcher and Sarkar 2013).

### **Key Contributions**

This study contributes to the burgeoning literature on COVID-19 by suggesting that researchers and practitioners need to particularly consider the detrimental effects of (increased) social media consumption during the pandemic despite their desired positive effects of connectivity during social distancing. Social network providers are encouraged to explore how overloads can be reduced (e.g., changing algorithms) and policymakers may want to incorporate boosting strategies aimed at fostering social media literacy to cope with digital stressors.

There are also other important implications for academe and practice. This study adds to transformative consumer research by revealing that strengthening consumers' resilience in face of social media-induced stressors, which resemble typical consumer hassles in the digital era, could lead to a substantial improvement in subjective well-being. Herein, the findings further enrich the marketing practice by introducing consumers' resilience as a potential part of well-being in the relationship domain.

Ultimately, theoretical and methodical opportunities abound for marketing researchers to explore the effects of consumers' resilience, even in face of other consumption-related stress, and to explore which and how protective factors may promote consumers' resilience. Given the mitigating power of resilience, intervention strategies to enhance consumers' resilience will be highly recommended for stakeholders engaged with marketing in the future.

*References are available upon request.*

## **DON'T TELL ME HOW MUCH TO TIP: THE INFLUENCE OF GRATUITY GUIDELINES ON CONSUMERS' FAVORABILITY OF THE BRAND**

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**Keywords:** gratuity guidelines, consumer tipping, psychological reactance, brand favorability

**Description:** We find that gratuity guidelines (i.e. tip suggestions on receipts) negatively influence consumers' favorability of the brand due to a heightened sense of threat to one's freedom.

### **EXTENDED ABSTRACT**

**Research Question:** Given the widespread prevalence of gratuity guidelines in the marketplace, in this research we ask how these gratuity guidelines influence consumer behavior? Specifically, how do such gratuity guidelines affect consumers' favorability of the particular brand?

**Method and Data:** We systematically tested our hypotheses across a series of four experimental studies.

**Summary of Findings:** First, we show that gratuity guidelines negatively influence consumers' favorability of the brand. Second, we demonstrate that the negative effect of gratuity guidelines on brand favorability is mediated by threat to freedom. Third, we document multiple boundary conditions to these findings, such that the negative effect of gratuity guidelines on consumers' brand favorability manifests for lower (vs. higher) income consumers. In addition, we find that including an explanatory message regarding the intended benefits (e.g., greater convenience) that gratuity guidelines can provide to the consumer eliminates the negative effect of gratuity guidelines on consumers' favorability of the brand. Finally, we show that gratuity guidelines largely do not influence consumers' tipping intentions.

**Statement of Key Contributions:** This research contributes to the literatures on tipping behavior, gratuity guidelines, and psychological reactance. First, it adds to the stream of work that examines the factors that influence tipping behavior by demonstrating that marketing actions that seek to increase tipping (i.e., gratuity guidelines) may also produce negative downstream consequences for the brand itself (i.e., consumers develop lower favorability of the brand). Second, our research contributes to the small extant literature on the effects of gratuity guidelines on consumer behavior by investigating a novel and significant outcome of gratuity guidelines:

consumers' favorability of the brand. Third, our research contributes to work on psychological reactance by showing that gratuity guidelines as a marketing action can also induce psychological reactance in consumers, increasing their perceived threat to freedom. As a result, these consumers react and display lower brand favorability levels. Practically, the findings of this research are important for marketers as it suggests that brands in general may not want to include gratuity guidelines on its receipts. However, if marketers desire to include gratuity guidelines on their receipts, they should also include an explanatory message on the receipts that describes the intended benefits (e.g., more convenience) that gratuity guidelines can provide to consumers.

## **FEAR OF MISSING OUT UNDER LOCKDOWN: A SELF-CONCEPT PERSPECTIVE**

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**Keywords:** Fear of missing out, lockdown, COVID-19, consumer behavior

**Description:** This study describes how American consumers experienced fear of missing out during lockdown at the beginning of the COVID19 pandemic.

### **EXTENDED ABSTRACT**

#### **Research Question:**

Fear of missing out (FOMO) is usually defined as an uneasy feeling that others are doing, experiencing, or possessing something rewarding while one is not (Przybylski et al. 2013; Gil, Chamarro, and Oberst 2015). In recent years, social media has exacerbated the feeling by allowing users to see what other people are buying, eating, doing, and, in general, enjoying (Przybylski et al. 2013). During shelter-in-place (i.e., lockdown) measures in the U.S., however, people could not go out to eat, travel, attend parties and events, or engage in outdoor activities. In this context, it is unclear whether FOMO persists or subsides.

Specifically, two important questions remain unanswered. First, can individuals experience FOMO outside the social media context? Even though Herman (2000) introduced the concept of FOMO in the context of branding, outside the context of social media, the current theoretical framework of FOMO constrains the construct to social media interactions. Second, can individuals feel fear of missing out without comparing to others? Current conceptualizations of FOMO do not consider the role of personal, rather than social, goals. In an attempt to fill this void, the present paper employs a self-concept perspective to examine fear of missing out.

**Method and Data:**

Drawing from a self-identity perspective, we posit that individuals feel fear of missing out on experiences that help them maintain or enhance their private and/or social self. Because lockdowns restrict individuals' access to products and experiences necessary to maintain or enhance their private and social self, we expect individuals under lockdown to report personal and social fear of missing out. Since social interactions are limited, we expect the personal FOMO dimension to be stronger than the social dimension.

We conducted an exploratory study during April 6-15, 2020 in the U.S., after about one month from the beginning of lockdown measures. One-hundred and fifty-seven adults (25-78 years old,  $M_{\text{age}} = 43$ , 79 female) were recruited by an online consumer panel provider (Qualtrics). The panel provider ensured that the demographic distribution of the sample represented the U.S. population. Participants answered a survey with a two-dimensional FOMO scale (Zhang 2018), a social media usage scale (Zhang 2018), and open-ended questions, for example "Current events related to COVID-19 have disrupted American way of life, write down goals, activities, or events that you fear missing out on." The set of questions appeared as a filler task in an unrelated study.

**Summary of Findings:**

We found that participants reported higher personal, rather than social, FOMO. The results of a paired sample t-test showed that personal and social FOMO dimensions were strongly and positively correlated ( $r = 0.57$ ,  $p < .001$ ) and that the mean difference between both dimensions was significant ( $t_{156} = 14.05$ ,  $p < .001$ ). Personal FOMO ( $M = 3.91$ ) was higher than social FOMO ( $M = 2.22$ ). Social FOMO was significantly associated with social media usage ( $\beta = .302$ ,  $t = 3.27$ ,  $p < .001$ ) while personal FOMO was not ( $\beta = .035$ ,  $t = .38$ ,  $p > .70$ ).

We identified 9 categories of activities that participants reported fear missing out on. Categories assigned to personal FOMO include Family (11.05%) (e.g., spending time with family and close relatives), Career (7.26%) (e.g., promotions, new jobs, education, and interviews), Health (5.44%) (e.g., exercise, doctors' appointments, losing weight), Religion (2.60%) (e.g., going to church), and Grooming (0.31%) (e.g., haircuts, nails). Categories assigned to social FOMO include Entertainment (38.88%) (e.g., going to concerts, going out,



going to the movies, zoos), Travel (14.91%) (e.g., trips abroad, trips to other cities), Friends (14.28%) (e.g., hanging out with friends), and Celebrations (5.29%) (e.g., weddings and birthdays). Although we classified “Celebration” into social FOMO, many respondents expressed fear of missing out on more intimate celebrations and events. For example, while birthday parties are social in nature, weddings and funerals can be more private.

### **Statement of Key Contributions:**

Our study offers a novel conceptualization of FOMO that broadens the domain of the concept and extends its scope outside social media. The results provide preliminary evidence that individuals feel fear of missing out on a myriad of products and experiences in offline settings (e.g., religious services, hospitality, sports, entertainment, and tourism). In addition, the results indicate that FOMO is not only related to the social self but also to the private self.

Our findings suggest that lockdown restrictions pose a psychological threat to consumers seeking to maintain and enhance their self-identity. Because consumers tend to use brands to maintain or enhance their identity, managers should consider strengthening brand connections during the lockdown. Reminders of brand affiliation could help consumers reassure their self-identity and mitigate FOMO. Anecdotal evidence suggests that even an email about COVID-19 measures by an airline can increase the self-esteem and reinforce the self-identity of a loyal frequent traveler. Business communications with updates about lockdown measures and acknowledgments of loyalty could reduce social FOMO by reminding customers they are not the only ones missing out. Business communications could also reduce personal FOMO by reaffirming a consumer’s identity.

References are available upon request.

**FORM FOLLOWS FUNCTION: HOW ROMANTIC MAINTENANCE MOTIVES  
IMPACT PREFERENCES FOR UTILITARIAN CONSUMPTION**

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**Keywords:** Romantic maintenance motive; Utilitarian consumption; Temporal focus

**Description:** This paper demonstrates that the motive of maintaining a romantic relationship leads individuals to have greater focus on the future and enhances their preferences for utilitarian consumption.

**EXTENDED ABSTRACT**

**Research Question**

How does the motive to maintain a romantic relationship impact preferences for utilitarian consumption?

**Method and Data**

We conducted several studies to examine the impact of romantic maintenance motives on utilitarian consumption. Study 1 uses secondary data on household automobile purchases to demonstrate how preferences shift to more utilitarian car purchases when individuals possess a romantic relationship maintenance motive. Study 2 (N=402) generalizes these findings by experimentally manipulating relationship motives and examining subsequent choice behavior.

Study 3 (N=337) tests our full conceptual model by measuring individuals' temporal focus as a mediator to our observed effects and examining multiple alternative explanations. Study 4 (N=410) manipulates the temporal focus of the purchase setting to provide further evidence for our conceptual framework. Study 5 (N=209) provides additional evidence of our temporal focus account by manipulating the additional services offered with a product. Finally, Study 6 (N=231) demonstrates consumer behavior through an actual choice task.

### **Summary of Findings**

Results demonstrated that the motive of maintaining a romantic relationship enhances a consumer's preferences for utilitarian consumption. This effect is driven by individuals' temporal focus, such that individuals with a romantic relationship maintenance motive had a greater focus on the future relative to individuals without such motive, leading them to prefer utilitarian options. Furthermore, marketer actions were identified that mitigate this effect. When consumption of the item was constrained to a short time (i.e. a rental product) or when additional services provided with the product highlighted an immediate benefit, the effect was mitigated.

### **Statement of Key Contributions**

Our research suggests that managers targeting segments such as married or cohabitating individuals should emphasize the utilitarian aspects of their products in their persuasive communications. Given that some products such as automobiles are marketed to multiple segments, marketers may benefit from emphasizing features such as the safety of the car as opposed to the emotions experienced when driving the car when appealing to segments with a salient romantic maintenance motive. Similarly, marketers may enhance advertising

effectiveness by selecting advertising channels which highlight the utilitarian aspects of their goods and services as part of the communication process. Marketers should also consider the temporal nature of their products when communicating with segments that possess a romantic maintenance motive, as products perceived as having a future-focus should be more effectively marketed when emphasizing their utilitarian aspects. Furthermore, managers aiming to target individuals with romantic maintenance motive for rental products with high utilitarian values (tools, appliances, equipment, etc.) can highlight the long-term benefits provided by the item to shift an individual's temporal focus to the future.

References are available upon request.

## **HOW MERE MANAGER RESPONSE INFLUENCES CONSUMER DECISION MAKING**

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**Keywords:** Manager responses, online reviews, electronic word of mouth, online review management, service recovery

**Description:** This research examines how a mere presence of manager responses to online reviews affects consumer decision-making.

### **EXTENDED ABSTRACT**

#### **Research Question**

Electronic word of mouth (eWOM) has been shown to play a major role in consumer decisions. However, despite the importance of online reviews on business performance, little is known about how firms can strategically manage them. In the current research, we examine how mere manager responses to online reviews affect consumer decision-making.

(1) Does the practice of posting a manager response influence prospective customer product evaluations?

(2) What is the underlying psychological mechanism that enables such influence?

### **Method and Data**

We conducted four between-subjects experiments with undergraduate students at a southeastern university or participants from Amazon Mechanical Turk (MTurk) to examine the research questions. In these experiments, participants were recruited in exchange for either nominal payment or course credit. To provide evidence for a robust effect, we introduced several modifications to the design of different studies (e.g., product types, composition of reviews, MR designs).

### **Summary of Findings**

Across four studies involving both hypothetical and real choices, the authors show that the mere presence of MR to negative reviews can increase product evaluations and customer preferences. This boost occurs because consumers generally perceive MR as a positive indicator of addressing negative issues mentioned in reviews, which in turn increases the perceived recovery and consumer trust, resulting in more favorable consumer responses.

### **Statement of Key Contributions**

The marketing literature has primarily focused on the impact of eWOM (e.g., product evaluations and sales). This research departs from extant eWOM research by examining how firms can strategically manage these reviews or even influence the impact of these reviews. Specifically, this research advances the theoretical understanding by elucidating how consumers perceive MR on earlier reviews when they are making product decisions and highlights the

strategic role of eWOM intervention strategy that empowers companies in the face of negative eWOM.

The present research also offers valuable guidance for practitioners to manage online reviews, particularly, whose online reputation suffers from negative reviews. Although customers value MRs, only around one-third of negative reviews on such major review sites as TripAdvisor receive an MR. By showing the impact of MR on consumer responses, this research helps managers better understand the importance of MR and their role in participating in customer-to-customer communities.

*References are available upon request.*

**In Tech We Trust: Examining the effect of Technology Dependence on Consumers Susceptibility to Deception.**

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**EXTENDED ABSTRACT**

This research broadly examines technology dependence and contributes to consumer theory by connecting this construct to consequences relevant to marketers and policymakers alike.

Specifically, this research explores the adverse effects of technology dependence on how people process persuasive information. In two studies, consumers with greater reliance on their technology were more susceptible to deception. The findings of these studies have policy implications as it suggests a need for marketers to be held to greater accountability. If technology not only makes consumers easier to reach but also makes them easier to deceive, then policy conversations may need to move beyond the notions of privacy policies and make it essential that marketing practices incorporate honesty policies as well.

Additionally, this work builds on past research on the effects of smartphone usage by revealing that technology dependence is broader than any one particular device. Thus, further research should examine a more holistic view of technology dependence, accounting for the Internet of Things (IoT). The devices examined include T.V., computers, smartphones, smartwatches, tablets, and gaming consoles. There is a greater dependence on smartphones than the other devices. However, when examining separate pieces of technology, the question of interconnectivity arises from the use of streaming from a smartphone to TV, or accessing phones



via smartwatches. Further research should account for the interconnected nature of technology and, thus, the interconnected nature of technology dependence.

## **RESEARCH QUESTION**

According to one industry study, 95% of U.S. households have T.V.s, 91% own smartphones, 75% own laptops, and 65% own tablets (Griffith, 2019). With even more technologies on the cusp of mass adoption, such as smart speakers (49% ownership) and wearables (17% ownership) (Cassagnol, 2019), marketing research must better understand how a consumers' close, intimate relationship with technology contributes to behavior changes. Though research in marketing on consumer-technology relationships is emerging, this research offers some of the first findings on direct influence of technology dependence on marketing-specific outcomes.

According to media system dependency, a relationship can form between consumer and media in which the capacity of individuals to attain their goals is contingent upon media (Ball-Rokeach, 1985). Similarly, technology dependence theory suggests that the intensity of utilization or reliance on a variety of devices, tools, software applications, and procedures is to help solve problems or perform specific functions (Fan, Liu, Wang and Wang, 2017). In our research, dependence means that individuals are reliant upon technology (e.g., I.T. devices, Internet, or machines) to reach their goals.

From the Computers-Are-Social-Actors paradigm (Nass & Brave, 2005; Nass & Moon, 2000; Reeves & Nass, 1996), consumers' responses to computers are fundamentally "social," and people apply social rules, norms, and expectations core to interpersonal relationships when they interact with computers. Similarly, we assign human attributes to computers, suggesting that we form relationships with our technology that can impact how we behave and live.

Today, technology relationships are marked by dependence. Mafe and Blas (2006) found that Internet dependency contributed positively to the willingness to purchase online. More frequent interaction with particular media is associated with greater trust in advertising (Stewart and Cunningham, 2017). Further, one study shows that just the mere presence of a phone, which is a device consumers have become dependent upon, taxes consumers' cognitive load (Ward, Duke, Gneezy and Bos, 2017). One study finds that in moments of stress, consumers tend to seek out their smartphones because they are better stress relievers than other devices such as one's laptop (Melumad and Pham, 2020). Together, these studies suggest that trust and cognition are affected by technology dependence, both of which are essential to altering one's ability to perceive deception (Aditya, 2001; Wentzel, Tomczak, and Herrmann, 2010). Thus, we hypothesize that higher technology dependence will be related to higher susceptibility to deception.

## **METHODS AND DATA**

### **Study 1- (General Context)**

Study 1 was an online survey with participants recruited from Amazon Mechanical Turk. The study captured dependence on technology (scaled adapted form Ball-Rokeach, 1985).

Dependence was measured using the 18-item, 5-point scale from (Ball-Rokeach, 1985), and averaged into a composite. Two hundred and thirty- participants completed the study. The mean age was 47 years ( $SD = 18.07$ ), and 49% of the sample was male.

The study used a task from (LaTour and LaTour, 2009) to test deception. The survey showed participants a fictitious Disney ad, with bugs bunny instead of mickey mouse. Then the respondents were shown a series of ten images in random order, five Looney Toon cartoon

characters, and five Disney cartoon characters. For each image, participants reported how true it was that the character was from Disney (1-item five-point scale).

### *Results*

A hierarchical regression was conducted. Dependence was input as the predictor, and the average composite for the 10-images being truly Disney characters was entered as the outcome. Brand familiarity was entered as a covariate.

Results confirm ( $p < .05$ ) that dependence positively predicts susceptibility to deception, such that those with higher dependence were more likely to say it was true non-Disney characters were Disney characters after seeing a looney tunes character in a Disney ad (Table 1).

### **Study 2- (Marketing Context)**

Study 2 was an online natural experiment with respondents from Amazon Mechanical Turk. Participants reported their dependence on technology. They then were shown three ads and one package, all with false claims based on the Federal Trade Commission (FTC) standards. Using the normative belief technique (Kuehl and Dyer, 1976; 1977), participants were asked for believability (a single 5-point item), purchase intention (a single 5-point item), and claim factuality (a single 7-point item) for the four brands shown in random order. It was crucial to address both familiarity with the brand and the perceived negative consequences of believing the claim to assess susceptibility to deception (Xie, Madrigal, and Boush, 2015). Both were assessed with a single 5-point item for each of the four brands. The study also measured general trust in advertising (a single 5-point item), and individual skepticism (Darke and Ritchie 2007) as controls. Lastly, the experiment obtained demographics. Dependence was measured as it was in Study 1. Three hundred and seven participants completed the study. The mean age was 37 years ( $SD = 11.47$ ), and 55% of the sample was male.

### *Results*

A series of three hierarchical regressions were conducted for each of the four brands (12 total). Dependence was input as the predictor, and beliefs, then purchase intention, then claim factuality was entered as the outcome. General trust in advertising, individual skepticism, brand familiarity, and perceived negative consequences were entered as covariates.

Results confirm ( $p < .05$ ) that dependence positively predicts susceptibility to deception, such that those with higher dependence were more likely to believe, have purchase intentions, and think accurate the deceptive claims for two of the four brands (Table 1). One possible reason that dependence was only associated with two of the four brands studied is that they had higher overall familiarity ( $M = 3.91$  and  $3.96$ ) compared to the other two ( $M = 3.23$  and  $3.33$ ) for which a relationship was not observed.

### **SUMMARY OF FINDINGS AND KEY CONTRIBUTION**

These two studies offer an examination of technology dependence and its direct influence on consumers' susceptibility to deception. Are consumers losing their capabilities due to an ever-growing reliance on technology? These studies offer evidence to suggest that dependence on technology does adversely influence the ability to perceive deception. Further research should examine ways to alleviate these effects. Future studies are planned to examine both mechanisms (e.g., trust) for this observed phenomenon and possible moderators.

Table 1. Statistically Significant Results

Study 1							
Variable	<i>t</i>	<i>p</i>	<i>B</i>	<i>F</i>	<i>df</i>	<i>p</i>	<i>adj. R2</i>
Brand Familiarity	-3.48	< .001	-.24	5.47	2, 228	.00	.06
<b>Technology Dependence</b>	3.19	.002	.22				
Study 2 Brand 1 (that was significant)							
Variable (DV. Beliefs)	<i>t</i>	<i>p</i>	<i>B</i>	<i>F</i>	<i>df</i>	<i>p</i>	<i>adj. R2</i>
Individual Skepticism	4.80	.000	.42	29.72	5, 301	<.001	.32
General Ad Trust	.61	.545	.05				
Brand Familiarity	2.00	.047	.10				
Perceived Negative Consequence	-2.89	.004	-.15				
<b>Technology Dependence</b>	2.78	.006	.18				
Study 2 Brand 1 (that was significant)							
Variable (DV. PI)	<i>t</i>	<i>p</i>	<i>B</i>	<i>F</i>	<i>df</i>	<i>p</i>	<i>adj. R2</i>
Individual Skepticism	5.14	.000	.41	47.57	5, 301	<.001	.43
General Ad Trust	1.38	.168	.10				
Brand Familiarity	3.95	.000	.18				
Perceived Negative Consequence	-2.37	.018	-.11				
<b>Technology Dependence</b>	3.43	.001	.20				
Study 2 Brand 1 (that was significant)							
Variable (DV. Claim Factual)	<i>t</i>	<i>p</i>	<i>B</i>	<i>F</i>	<i>df</i>	<i>p</i>	<i>adj. R2</i>
Individual Skepticism	2.20	.028	.21	13.14	5, 301	<.001	.17
General Ad Trust	.89	.374	.08				
Brand Familiarity	2.98	.003	.16				
Perceived Negative Consequence	-2.39	.018	-.14				
<b>Technology Dependence</b>	2.06	.040	.14				
Study 2 Brand 2 (that was significant)							
Variable (DV. Beliefs)	<i>t</i>	<i>p</i>	<i>B</i>	<i>F</i>	<i>df</i>	<i>p</i>	<i>adj. R2</i>
Individual Skepticism	1.94	.053	.18	22.35	5, 301	<.001	.26
General Ad Trust	2.27	.024	.19				
Brand Familiarity	4.18	.000	.21				
Perceived Negative Consequence	-3.81	.000	-.21				
<b>Technology Dependence</b>	2.42	.016	.16				
Study 2 Brand 2 (that was significant)							
Variable (DV. PI)	<i>t</i>	<i>p</i>	<i>B</i>	<i>F</i>	<i>df</i>	<i>p</i>	<i>adj. R2</i>
Individual Skepticism	2.07	.040	.18	29.46	5, 301	<.001	.32
General Ad Trust	1.85	.066	.15				
Brand Familiarity	3.14	.002	.15				
Perceived Negative Consequence	-5.07	.000	-.27				
<b>Technology Dependence</b>	4.98	.000	.31				
Study 2 Brand 2 (that was significant)							
Variable (DV. Claim Factual)	<i>t</i>	<i>p</i>	<i>B</i>	<i>F</i>	<i>df</i>	<i>p</i>	<i>adj. R2</i>
Individual Skepticism	2.92	.004	.25	34.66	5, 301	<.001	.36
General Ad Trust	2.92	.004	.23				
Brand Familiarity	4.98	.000	.24				
Perceived Negative Consequence	-4.58	.000	-.23				
<b>Technology Dependence</b>	2.18	.030	.13				

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## **INFORMATION PRIVACY AND CONSUMERS' WILLINGNESS TO SHARE PERSONAL INFORMATION: TOWARD A CONCEPTUAL FRAMEWORK**

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Keywords: data sharing, firm privacy, firm performance outcomes, structural equation modeling

Description of the paper: The purpose of this paper is to develop a conceptual framework regarding how firm privacy affects firm performance outcomes.

### **EXTENDED ABSTRACT**

#### **Research Question**

The purpose of this paper is to develop a conceptual framework regarding how firm privacy affects firm performance outcomes. To address this objective, we will explore two mechanisms that also serve as our research questions. First, how does firm privacy affect a firm's performance (e.g., what is the process by which firm privacy affects firm performance)? Second, what are key mediators that affect the relationship between firm privacy and firm performance outcomes?

## **Method and Data**

Drawing on Structural Equation Modeling (SEM) and data from 15,068 consumers across 24 countries, we develop and test our hypotheses. SEM combines factor analysis and multiple regression analysis to analyze structural relationships between latent constructs and measured variables (Fornell and Larcker 1981). We operationalize firm performance outcomes as loyalty and positive word of mouth (WOM). Furthermore, we operationalize firm privacy as data use transparency and customer control. We argue that institutional trust and perceived benefits mediate the relationship between firm privacy and firm performance outcomes. We control for demographic variables (e.g., gender, age, and income) and further context-related factors, such as satisfaction, emotional violation, and information ownership.

## **Summary of Findings**

Our empirical findings outline the direct effects of data use transparency and customer control on WOM and loyalty, as well as the mediating effects of institutional trust and perceived benefits. First, we show that data use transparency and customer control positively affect WOM and loyalty. Thus, firms that provide more transparency and grant consumers more control over their personal information achieve higher WOM and loyalty. Second, the relationships between firm privacy and firm performance outcomes are mediated by institutional trust and perceived benefits. We outline that trust and benefits are essential drivers in the customer-firm relationship.

## **Key Contributions**



We contribute to the literature in three ways. First, this work will advance the academic debate in various research streams by providing scholars with a validated and empirically tested conceptual framework on information privacy, consumers' willingness to share personal information, and firm performance outcomes that will be applicable across disciplines. Second, our conceptual framework outlines the processes by which firm privacy affects firm performance and how this relationship is mediated by institutional trust and perceived benefits. Third, our findings are consistent across 24 countries, addressing the call for large-scale global surveys and the need for consideration of Asian consumers (Hong, Chan, and Thong 2019). Besides, we show what firms can do to improve customers' perceptions of information transparency and control and how firms can enhance their performance outcomes.

**INVESTIGATING ACTUAL TIPPING BEHAVIOR: INTEGRATING EXPECTATION  
DISCONFIRMATION, ZONE OF TOLERANCE AND CONSUMPTION GOALS**

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Keywords: expectation disconfirmation, the zone of tolerance, consumption goals, tipping nudge, actual tipping behavior, linear piecewise regression model

Description: This paper provides a holistic understanding of how actual taxi tipping behavior is impacted by different expectation-disconfirmation zones, consumption goals, and tipping nudges.

**EXTENDED ABSTRACT**

**RESEARCH QUESTION** – Academic researchers have focused on predicting tip magnitude based on several theories like social normative theory (where consumers tip to avoid embarrassment for not abiding by social norms), expectation disconfirmation theory (where the discrepancy between perceived and expected level of food and service quality predicts tip size), nudging theory (where the default payment options influence tipping behavior), or equity theory (where consumers tip to compensate service providers equitably). Most studies have examined tipping magnitude in laboratory settings focusing on intended tipping using a single theoretical

lens. Additionally, researchers have not considered the impact of consumption goals of consumers to understand tip magnitude. For example, a consumer taking a taxi to work has a purely utilitarian goal of getting there on time. While the same consumer taking a taxi on a weekend to a park has a hedonic goal of enjoyment. Emotions associated with the consumption goals can influence consumer tipping. Given the number of theoretical perspectives, it is inadequate to understand tipping through one single lens. Therefore, we aim to examine the integrated impact of expectation disconfirmation, social norms, tipping nudges, and consumption goals on actual tip magnitude in taxi rides. We propose that there exist three distinct disconfirmation zones: negative disconfirmation (reaching late), a zone of tolerance (within few minutes of expectations), and positive disconfirmation (reaching early) across which the tip size varies non-linearly. Moreover, people with a hedonic (vs. utilitarian) goal will tip more in all the zones. Furthermore, people when exposed to tip suggestions in percentage (vs. absolute dollars) will tip more in all the disconfirmation zones.

**METHOD AND DATA** – We use a dataset of New York City actual yellow taxis with an initial sample of approximately 54 million trips. We take a 30% random sample of these trips in the estimation. We focus on trips that drop-off riders in the commercial hub of Manhattan (DO1) during weekdays from 8 AM to 11 AM and pick up from two residential locations: Chelsea (RL1) and Yorkville (RL2) for Utilitarian trip pairs 1 and 2 respectively. For Hedonic trip pairs 1 and 2, we choose trips from RL1 to DO1 from 7 PM to 10 PM and RL2 to Central Park (DO2) during the weekends, respectively. We further subdivide each of the four sample pairs into two based on the payment software vendor providers. They differ on providing percentage vs absolute dollar tip suggestions on the payment screens in the taxis. We use PROC ADAPTIVEREG in SAS, the non-linear piecewise regression model to identify the knots

separating the disconfirmation zones and examine the change in tip magnitude across the zones for different tip nudge and consumption goals. We posit that Disconfirmation = (Expected trip time – Actual trip time). We calculate the expected trip time by taking the median of the trip times of the specific pair. Further, we use Hayes' PROCESS macro in SAS to study the moderating impact of tip nudge and consumption goals on the relationship between disconfirmation and tip magnitude.

**SUMMARY OF FINDINGS** – The results for Utilitarian pair 1 for provider 1 provide two significant knots at -6 minutes ( $\beta = 0.13$ ) and 3.4 minutes ( $\beta = 0.50$ ) and for provider 2, one significant knot at 2 minutes ( $\beta = 0.61$ ). For Hedonic pair 1 for provider 1 there is one significant knot at -14 minutes ( $\beta = 0.14$ ) and for provider 2 at -9 minutes ( $\beta = 0.45$ ). Further, for Utilitarian pair 2 for provider 1 there is one significant knot at -2.5 minutes ( $\beta = 0.27$ ) and for provider 2, one significant knot at -6 minutes ( $\beta = 0.41$ ). For Hedonic pair 2 for provider 1 there is one significant knot at 0.73 minutes ( $\beta = 0.96$ ) and for provider 2 one significant knot at -10 minutes ( $\beta = 0.48$ ). The knots confirm the presence of disconfirmation zones across which the tip magnitude varies. Most trip pairs show only two disconfirmation zones (one knot) rather than the hypothesized three zones (two knots). For hedonic pair 1, provider 2, the negative value of the knot (example -9 minutes) imply that customers are willing to tolerate delays of nine minutes from their expected trip time and still tip a minimum amount. The  $\beta = 0.45$  is the increase in tip percentage per minute of reaching early for delays less than 9 minutes. For a comparable utilitarian pair, the knot is at 2 minutes with  $\beta = 0.61$ . The customers only tip better if they reach earlier than 2 minutes but then tip at a higher rate. Additionally, they appear to be willing to accept higher delays for hedonic trips. Overall, the slopes in the disconfirmation zones indicate that customers have different tip percentages in different disconfirmation zones.

The moderating impact of tip nudge on the relationship between disconfirmation and tip magnitude is significant for all the four pairs [(Utilitarian pair 1 ( $\beta = 0.19$ ,  $p = 0.00$ ); Hedonic pair 1 ( $\beta = 0.30$ ,  $p = 0.00$ ); Utilitarian pair 2 ( $\beta = 0.19$ ,  $p = 0.00$ ); Hedonic pair 2 ( $\beta = 0.10$ ,  $p = 0.00$ )]. We conclude that consumers provided with tip nudge in percentages tip higher than nudge in absolute dollars across the disconfirmation zones for the two different consumption goals.

The analysis of the main effect of consumption goals on tip magnitude is significant for both Sample pair 1 ( $\beta = -1.33$ ,  $p = 0.00$ ) and Sample Pair 2 ( $\beta = -2.46$ ,  $t = -25.75$ ,  $p = 0.00$ ). This implies that consumers with hedonic goals tip more than those with the utilitarian goal. The analysis of the moderating impact of consumption goals on the relationship between disconfirmation and tip magnitude for Sample Pair 1 is not significant ( $\beta = -0.017$ ,  $p = 0.61$ ), while for Sample Pair 2 is significant ( $\beta = -0.105$ ,  $p = 0.00$ ). Therefore, the expectation that consumers with hedonic goal tip more across the disconfirmation zones is partly supported and needs further investigation.

When analyzing the relative importance of the explanatory variables in predicting tip size, disconfirmation is most important followed by consumption goal and tip nudge.

**CONTRIBUTIONS** - Firstly, our research is among the first to suggest that both cognitive service evaluations, as well as hedonic emotions of consumers, influence actual tipping magnitude. We show that, on average, patrons with hedonic goals tip higher than those with utilitarian goals.

Secondly, we propose the concepts of disconfirmation zones and zone of tolerance to better predict tipping behavior. We are the first to empirically estimate knots to investigate the number

and size of the zones and their influence on tip magnitude. We conclude that tipping behavior is highly non-linear. It varies across the disconfirmation zones for various tip nudges and consumption goals.

Thirdly, we build on the tipping literature by providing a comprehensive theoretical framework to predict actual tip size. We highlight the inadequacy of examining tipping from a single theoretical lens by analyzing the relative importance of the various explanatory variables to examine it.

*References are available upon request*

## **MOUSE TRACKING IN E-COMMERCE: PREDICTING PRODUCT RETURNS AND PSYCHOLOGICAL OWNERSHIP VIA CONSUMER'S HAND MOVEMENTS**

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Keywords: Mouse Tracking, Trajectory Analysis, Ownership, Product Returns, E-Commerce

Description: The paper explores the predictive power of mouse trajectories for product returns mediated by the concepts of psychological ownership and cognitive engagement.

### **EXTENDED ABSTRACT**

#### **Research Question**

Product returns incur processing costs for online-retailers such as re-shipping, warehousing and reversing transactions. Here, we investigate which online-behaviors of shoppers may help to predict the likelihood of product returns.

Choosing from a set of options always requires a minimum amount of cognitive elaboration to arrive at a final decision. Additionally, any type of effort that consumers invest in reviewing choice options (i.e., mentally or physically) may increase perceived ownership for a reviewed option. Based on the concepts of cognitive elaboration and loss aversion, we hypothesize that increased mental effort associated with a choice should increase perceived ownership for the chosen product. This increase in mental effort should ultimately increase post-purchase valuation of the chosen product akin to an endowment effect. Hence, the higher the mental effort

involved in a product decision the lower should be the likelihood to return the chosen product after the purchase has been made.

Literature establishes that mouse trajectories are a proxy for mental effort: a difficult choice between two options, for example, manifests in curvier and longer mouse trajectories as people move the cursor towards their final choice. We thus used various mouse trajectory parameters in an e-commerce environment to test our hypotheses.

### **Method and Data**

Study 1 (N=154) used a controlled lab setting in which participants completed a sequence of forced choice trials between two wine bottles. To create difficult versus easy choice trials, we used the price of wine bottles and fictive quality ratings. An easy decision always entailed choice among two bottles in which one bottle was superior in terms of quality and price. For difficult decision one product was superior on only one of the two attributes. Choice difficulty was validated by a pretest. Mouse trajectories (i.e., mouse curvature, deviation to the unselected item, time until completion, and total length of the mouse trajectory) were recorded for each decision.

Study 2 (N=157) recorded participants' mouse movements while browsing a mock-up store for fashion products. After each of 9 choice tasks, the participants reported their perceived choice difficulty as well as their perceived ownership feelings towards the selected item. To control for alternative explanations, participants also reported their mood and need for cognition. Last, participants were presented with a summary page of all chosen items. In order to prompt product returns, participants were told that the shopping cart was containing too many items and asked to remove one item.

### **Summary of Findings**



For study 1, we found that decision difficulty indeed leads to curvier and longer mouse trajectories, thus validating our procedure. For study 2, we used the maximum deviation towards non-selected products as measure for cognitive effort. We also included idle time, total response time, gender, mood and need for cognition as covariates in all analyses reported hereafter. As predicted, we found a significant negative effect of maximum deviation of the mouse trajectory on perceived ownership of a chosen product ( $p < .001$ ).

To test for mediation, we conducted a bootstrap mediation analysis with maximum deviation as predictor, subjective reports of ownership feelings as mediator, and product returned (0 = not; 1 = returned) as the dependent variable. The A-path from maximum deviation to ownership feelings was significant and positive, ( $B = 26.27$ ,  $t(1039) = 8.42$ ,  $p < .01$ ). The B-path from ownership feelings to product returned was also significant and negative ( $B = -.11$ ,  $t(1039) = 3.58$ ,  $p < .001$ ). Thus, the indirect effect was significant and negative ( $B = -2.96$ , 95% CI = -6.34 to -.77), indicating mediation.

### **Key Contributions**

The present results indicate that mouse tracking is a feasible process-tracing tool for consumer research in e-commerce. Specifically, we demonstrate that mouse trajectories are a marker for later product returns. Study 1 shows that mouse trajectories are an analytical marker for choice difficulty through cognitive elaboration, as difficult decisions are characterized by increased deviation towards the ambivalent item, longer total response times, more curvature of the mouse trajectory, and longer distances as compared to easy decisions. Any change in the mouse vector can be seen as cognitive elaboration, i.e., mouse trajectories are not limited to unveil current choice difficulties, but also to predict the outcome of cognitive processes linked to the activity. Study 2 shows that mouse trajectories can be used to predict post-decisional outcomes. To the best of our knowledge, this is the first study ever to show that product returns can be predicted by using pre-decisional mouse movements of shoppers. The study emphasizes that especially

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the maximum deviation towards the discarded choice option offers more explanatory power than the widely used response time.

*References are available upon request.*

# PARTNER OR SERVANT? THE EFFECT OF RELATIONSHIP ROLE ON CONSUMER INTERACTION WITH ARTIFICIAL INTELLIGENCE

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**Key words:** Artificial Intelligence; Relationship; Service Failure; Attribution; Self-efficacy

**Description:** This study examines the effect of relationship role on consumers interaction with artificial intelligence.

## EXTEND ABSTRACT

### Research Question

Today's consumers increasingly encounter with artificial intelligence (AI) as the overall market continues to grow. Recent research suggests that as with other humans, consumers tend to develop various relationships when interacting with AI, two of the most discussed ones are AI-as-partner and AI-as-servant relationship (Novak & Hoffman 2019; Schweitzer et al., 2019). However, what remains underexplored is the effects of these relationship roles on consumer-AI interactions. Therefore, the purpose of the current research is to investigate these potential effects.

### Method and Data

We conduct 3 experiments to test our hypotheses. 129 participants were randomly assigned into two conditions (Partner vs. Servant) in study 1. The manipulation stimuli were designed based on previous studies on brand relationship (e.g., Kim & Kramer 2015), Relationship role perception was measured using two items adapted from Kim and Kramer (2015). To measure self-expansion, we adapted from the widely used Inclusion of Others in Self (IOS) Scale developed by Aron et al. (1992).

In study 2, 239 participants were guided through a 2(Role: Partner vs. Servant) X 2(Interaction Outcome: Positive vs. Negative) between-subject study. This time, we also manipulated the interaction outcome as either positive or negative. In addition to the IOS scale, we measured attribution of responsibility which comprised of two dimensions: self-attribution and other attribution. In study 3, 201 participants were guided through a study identical to study 2. We also

measured future reuse intentions using three items adapted from (Venkatesh, Thong, & Xu, 2012).

### **Summary of Findings**

*Study 1.* A one-way ANOVA revealed a significant effect of relationship role on self-expansion: Participants who perceived the AI as partner projected higher degree of inclusion of the AI in the self than those with the servant perception ( $M_{\text{partner}} = 5.00$ ,  $M_{\text{servant}} = 4.37$ ,  $F(1, 127) = 4.72$ ,  $p = .032$ ).

*Study 2.* We found significant interactions of Role X Outcome on both self ( $F(1, 235) = 4.28$ ,  $p = .04$ ) and other attribution ( $F(1, 235) = 3.93$ ,  $p = .049$ ). Specifically, when the outcome was positive, participants who perceived the AI as a partner attributed the outcome more to the AI, than those who perceived the AI as a servant ( $M_{\text{partner-positive}} = 6.00$ ,  $M_{\text{servant-positive}} = 4.90$ ,  $F(1, 235) = 11.52$ ,  $p = .001$ ). However, when the outcome was negative, participants who perceived the AI as a partner attributed the outcome more to themselves ( $M_{\text{partner-negative}} = 5.19$ ,  $M_{\text{servant-negative}} = 4.23$ ,  $F(1, 235) = 9.52$ ,  $p = .002$ ).

*Study 3.* We found a significant interaction of Role X Outcome on future reuse intentions ( $F(1, 197) = 4.30$ ,  $p = .04$ ). Specifically, when the outcome was positive, there was no significant difference between their reuse intentions. However, when the outcome was negative, participants who perceived the AI as a partner reported lower reuse intentions than their counterparts with servant perception ( $M_{\text{partner-negative}} = 4.46$ ,  $M_{\text{servant-negative}} = 5.16$ ,  $F(1, 197) = 8.43$ ,  $p = .004$ ).

### **Key Contributions**

This research contributes the literature in three ways: first, We add to the emerging but fast-growing literature on consumer-AI interaction by demonstrating a mixed effect of relationship role on how consumers react and evaluate the AI.

In addition, this relationship role perception has an impact on consumers' attributional behavior. Although past research on attribution generally posits that consumers often exhibit a self-serving bias in attributing responsibility (Folkes 1984; Bitner 1990), some studies have uncovered specific contexts where such bias is somewhat mitigated. In this research, we complement to this stream of literature by showing that in the context of consumer-AI interaction, perceiving an AI as a partner can also refrain consumers from attributing the outcome in a self-serving manner.

Third, we found that such seemingly altruistic attribution does not help in maintaining a long term relationship with the AI as they report a lower future reuse intention, following a negative interaction outcome. This finding is in line with previous research on brand relationship where a

strong relationship leads to more negative outcome after a product/service failure (e.g., Grégoire & Fisher, 2008).

**ROBBIE, CLEAN MY KITCHEN! HOW NICKNAMING DRIVES CONSUMER PERCEPTIONS AND USE OF AUTONOMOUS PRODUCTS**

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**Keywords:** Autonomous products, nicknaming, control, collaboration, human-machine interaction

**Description:** The paper examines the effects of nicknaming autonomous products and shows that for customers with a collaborative personality, providing a nickname helps regaining control, which in turn increases the intention to use the product.

**EXTENDED ABSTRACT**

**Research Question** – The advent of artificial intelligence (AI) and robotics boosts the use of nicknames for consumer products. According to the CEO of iRobot, manufacturer of the robotic vacuum cleaner Roomba, an estimated 90% of Roomba owners use a nickname for their robotic vacuum cleaner. Furthermore, different companies like Husqvarna (robotic lawn mower Automower) or iRobot (robotic vacuum cleaner Roomba) encourage their customers to use nicknames. They, for example, highlight nicknames in their communication strategy or provide an option to assign a nickname in the associated mobile applications. In spite of the fact that nicknaming autonomous products is a prevalent phenomenon many customers can relate to; research has not examined the consequences. We begin to address this research gap and formulate the following research question: How does nicknaming autonomous products influence consumer perception and use? Prior research on autonomous products identified

missing control as a key adoption barrier. Based on previous findings, we propose nicknaming as a promising intervention for collaborative consumers to regain control.

**Method and Data** – We tested our assumptions across two studies, a large-scale field study with actual customers and a subsequent experimental study. The key objective of study 1 was to examine whether consumers evaluate autonomous products differently when using a nickname for them. To explore this issue, we conducted a large field study in collaboration with a distributor of smart kitchen devices involving actual customers. Over 8,000 newsletter subscribers participated in the study. Study 2 provided causal evidence for the effect of using nicknames on usage intention. We experimentally manipulated nicknaming (vs. not nicknaming) autonomous products. The hypothesized underlying mechanism via perceived control and the hypothesized boundary effect of collaboration trait were examined. We also used another product, a robotic vacuum cleaner and another sample as in study 1. For study 2, participants were recruited through Amazon Mechanical Turk.

**Summary of Findings** – In sum, study 1 demonstrated that nicknaming autonomous products is a common practice which is associated with positive effects on usage frequency and product evaluations. In addition, customers using nicknames are more collaborative (self-reported) and also perceive the interaction with the product rather as a collaborative task. These findings provided initial evidence for the hypothesized role of collaboration. Whereas study 1 involved actual customers in a large field study, the results are merely correlational and may be biased due to self-selection. Therefore, study 2 provided causal evidence for the effect of using nicknames on usage intention experimentally manipulating nicknaming (vs. not nicknaming). Participants in the nickname condition responded that it felt relatively natural to give the autonomous product a nickname. We performed a moderated mediation analysis and found support that nicknaming autonomous products affects usage intention via perceived control. Furthermore, our findings revealed that the positive effect of using

nicknames on usage intention of autonomous products was attenuated for persons who perceive themselves as competitive. These findings are in line with our hypotheses.

**Statement of Key Contributions** – Our current article provides contributions for both, academia and practice. Prior research on autonomous technologies suggests that one key adoption barrier is low perceived control. Furthermore, previous research on nicknaming objects is limited and does not address autonomous products. With this paper we contribute to the existing literature by investigating the consequences of nicknaming from the novel perspective of autonomous products. We demonstrate that nicknaming autonomous products may offer an effective counter against fears commonly triggered by AI and product autonomy such as a feeling of a loss of control. Additionally, our research is relevant for practitioners. Nicknaming autonomous products is a pervasive phenomenon among consumers. Further, different companies already encourage their consumers to use nicknames, for example, in marketing campaigns or in the associated mobile applications. Therefore, the question arises whether encouraging consumers to nickname their products with a high degree of autonomy is beneficial to practitioners. Our findings imply that, depending on product category (as some products may be perceived as more collaborative or competitive in general) and personality of the customer, nicknaming can be a valuable intervention to increase the intention to use autonomous products.

References are available upon request.



**CONSUMER ASPIRATIONS, SELF-CONCEPT AND SOCIAL INFLUENCE****Petra Paasonen, Aalto University School of Business****Sanna Sundqvist, Aalto University School of Business****Contact information:** For further information, please contact Petra Paasonen, PhD candidate, Aalto University School of Business ([petra.paasonen@aalto.fi](mailto:petra.paasonen@aalto.fi)).**Keywords:** aspirations, self-concept, ideal self, social influence**Description:** This conceptual paper aims at building an enhanced understanding of consumer aspirations by drawing from prior research in goals, self-concept, and social influence.**EXTENDED ABSTRACT****Research Question**

Already in early 2010s, a novel consumer segment called “aspirational consumers” was identified. The so-called “aspirationals” constitute the largest global consumer segment representing 39% of the global population. While academic research has also acknowledged the existence of aspirations, most studies in the field of marketing and consumer research approach the concept via object-related elements. As an example, they investigate aspirational reference groups (e.g., Cocanougher & Bruce 1971; Dwivedi et al. 2015; Englis & Solomon 1995; Escalas & Bettman 2003), aspirational advertising (e.g., Dimofte et al. 2015) and aspirational brands (e.g., Ward & Dahl 2014). Surprisingly, the concept of aspirations as an individual’s characteristic has been largely absent from efforts to understand consumer behavior. Consequently, there is a lack of conceptual clarity of what constitutes aspiration within the consumer research domain. Moreover, little is known about the ways in which aspirations emerge or about their downstream consequences. The overall objective of this paper

is to build an enhanced conceptual understanding of consumer aspirations and their impact on consumer behavior. Thus, the research questions this conceptual paper aims to answer are: What are consumer aspirations? and How are aspirations formed and how do they drive behavior?

### **Summary of Findings**

First, acknowledging the lack of conceptual clarity in what constitutes aspiration within the consumer research domain, we develop a definition of aspiration that integrates prior literature in a coherent manner. By providing an unambiguous definition for the focal construct, this paper lays a solid foundation for further investigation of aspirations in marketing and consumer research.

Second, by showing that aspirations are embedded in the individual's self-concept as a part of the idealized sense of self, we illuminate the bidirectional relationship between aspirations and the social environment. The aspiration process outlined in the paper demonstrates, on one hand, how the individual's social context shapes the self-concept, and on the other hand, how personal aspirations determine interactions with the social environment, and thus potentially influence consumption choices. Essentially, an enhanced understanding of the ways in which aspirations direct decision-making by turning the individual into an active seeker of social influence offers a new perspective into the study of social influence, and furthermore, can shed light on a number of issues in consumer behavior.

Finally, we demonstrate that by understanding the recursive process between aspirations and the social environment, one can more deeply understand the role of aspirations in social influence. More specifically, we show that aspirational influence shares some common elements with both normative and informational social influences. Ultimately, by delineating

the key implications that aspirations have for the process of social influence, we provide a solid starting point for further exploration in this domain.

### **Statement of Key Contributions**

This conceptual paper contributes to the contemporary consumer research (a) by offering a clear, concise definition of consumer aspirations, (b) by explaining the bidirectional relationship between aspirations and the social environment, where the individual's social context contributes to the formation of aspirations and these aspirations, in turn, determine what kind of social influence is sought after, and (c) by delineating the key implications aspirations have for social influence processes.

For marketing managers, this paper offers insight into the underlying motivations behind consumer behavior. We suggest that by understanding consumer aspirations, and how they operate as part of the ideal self-concept, marketing practitioners can better understand the driving motives of consumers' consumption decisions and choices. Moreover, the effects of the identified aspiration process on social influence can provide insight into the ways in which personal aspirations potentially guide consumers' responses to marketing communications.

References are available upon request.

## **SOCIAL VIRTUAL WORLD MEMBERSHIP REDUCES STRESS ABOUT CONTRACTING COVID-19**

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### **Keywords:**

avatar; social virtual world, COVID-19, coping strategy

### **Description:**

Across two studies, the current research identifies a novel coping strategy to alleviate individuals' anxiety and stress about getting infected with COVID-19 virus - individuals who became members of a social virtual world (SVW) via avatars indicated higher psychological resilience towards fear of contracting COVID-19.

## EXTENDED ABSTRACT

### Research Question:

In March 2020, the novel coronavirus disease known as COVID-19, was labeled a pandemic by the World Health Organization. The fear and threat of contagion with COVID-19 is leading to enduring psychological problems among people which can be more detrimental in the long run than the virus itself (Depoux et al. 2020). Given this background, it is imperative that intervention tools are identified quickly to help assuage the mental stress associated with the fear of contracting the disease. To this end, this research offers a potential intervention tool and proposes a novel yet simple coping strategy to mitigate anxiety and fear of contracting COVID-19: becoming members of social virtual worlds (SVWs) via avatars. We propose that the disembodied experience stimulated by being a member of an SVW via an avatar increases the psychological resilience towards the fear of contracting COVID-19. Drawing on and extending the “Proteus Effect” (a phenomenon in which the behavior and attitude of an individual is influenced by the characteristics of their avatar, both in online and offline environment; Yee and Bailenson 2007), we argue that the disembodied experience stimulated by transitioning to an avatar in an SVW enables the user to envision living in an immune body in a parallel life away from the constraints and limitations of the human body which in turn increases the psychological resilience towards the fear of contracting COVID-19.

### Method and Findings:

Study 1 examined our main proposition. Participants ( $N = 210$ ;  $M_{age} = 34.32$ , 43.8% female) were randomly assigned to one of two conditions (new identity: *SVW* vs. *work*) in which they either adopted a new identity of an SVW member or a new work identity. Before introducing the condition specific stimuli, participants were presented with an article excerpt

about COVID-19 to prime them with COVID-19-related thoughts. Next, in the *SVW* condition, participants were asked to imagine that they became members of an *SVW* and create a customized avatar to represent themselves in the platform. They then completed a series of interactive questions to increase their sense of involvement with their new *SVW*. In the *work* condition, the participants were asked to imagine that they started a new job and were asked to pick one of two generic user-profile icons to represent themselves in their new company. They then completed a series of interactive questions similar to *SVW* condition. Following the interaction process, participants were asked to indicate their agreement to the four-item dependent-variable measure capturing their level of psychological resilience towards the fear of contracting COVID-19 and hence their confidence in coping with COVID-19-related anxiety. All measures used 9-point, Likert-type scales (1 = strongly disagree, 9 = strongly agree). An ANCOVA on the *COVID-19 psychological resilience* dependent variable ( $\alpha = .87$ ) with *new identity* as a categorical predictor, *gender* as a categorical covariate, and *age* as a continuous covariate revealed a significant main effect of *new identity* ( $F(1, 206) = 4.10, p = .044$ ). Consistent with our prediction, participants felt greater psychological resilience regarding coping with COVID-19 when they adopted a new *SVW* member identity ( $M_{SVW} = 5.27, SD = 2.26$ ) compared to when they adopted a new work identity ( $M_{work} = 4.60, SD = 2.36$ ).

Study 2 used mediation-by-measurement design to directly investigate the role of disembodied transition as the mechanism underlying the above effect. After the COVID-19 priming tasks, participants ( $N = 93; M_{age} = 36.37, 44.1\%$  female) were randomly assigned to one of two conditions (digital platform: *SVW* vs. *social media*). The *SVW* condition was identical to that in Study 1. In the *social media* condition, participants were asked to imagine they had decided to become a member of a social-media platform and create a customized avatar as a

profile picture. Similar to SVW condition, participants then encountered a multistep process to create their customized avatar, followed by series of condition-specific involvement questions. Following the interaction process, participants in both the conditions were exposed to the four *COVID-19 psychological resilience* items from Study 1. Afterward, they completed a two-item process measure for *disembodied transition* adapted from Holsapple and Wu (2007). All measures used 9-point Likert-type scales (1 = strongly disagree, 9 = strongly agree). An ANCOVA similar to Study 1 resulted in a significant main effect of digital platform ( $F(1, 89) = 3.97, p = .049$ ); participants who became members of the SVW indicated higher *COVID-19 psychological resilience* ( $M_{SVW} = 5.47, SD = 2.35$ ) than those who became members of the social-media platform ( $M_{socialmedia} = 4.44, SD = 2.38$ ). Next, we tested the mediation using Hayes's (2017) PROCESS macro (Model 4; 95% confidence interval; 5,000 bootstrap samples). Consistent with the prediction, the results revealed a significant overall mediation effect ( $b = 1.48, SE = .37, 95\% CI [.82, 2.26]$ ) of the composite *disembodied transition* ( $\alpha = .91$ ).

**Key Contributions:**

The present research makes theoretical contributions to the literature on Proteus Effect (Yee and Bailenson 2007). Extant literature considers the implications of the physical attributes of digital self-representation (i.e., avatars) on an individual's real self. Extending this, the present research reveals the influence of a more innate feature of graphical avatars, that is their imperviousness from the limitations of a corporeal body. The results show that individuals experience disembodiment when they represent themselves through avatars. This enables them to envision themselves as similar entities immune to limitations of the human body, in this case, the COVID-19 virus.

In addition to making theoretical contributions, this research also has important implications for marketing efforts in responding to the COVID-19 mental health crisis. The results show that by small intervention tools like encouraging people to become users of SVWs can provide a remedial solution for the mental health crisis arising as an aftermath of the COVID-19 pandemic. Therefore, we expect the current findings to be of interest to health policy experts and consumers as an intervention tool that is simple, has a short turnaround and can be used in conjunction with another tools. Additionally, the findings of this research will also be of interest to designers and developers of SVWs. We believe the benefit examined in our investigation will accelerate the adoption of SVWs and help this technology reach its full potential. Many real-world businesses (e.g., IBM, Levi's jeans, Reebok, and Toyota) are increasingly developing a presence in SVWs to build their brands or grow their revenues (Arakji and Lang 2008). We believe that the rise of SVWs now offers a unique opportunity for marketers to take their quest for brand superiority to the next frontier.

**Note:**

References are available upon request.



## **STOP TALKING! WHEN WORD OF MOUTH ABOUT STATUS PRODUCTS BACKFIRES**

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**Keywords:** word of mouth, status consumption, social perception, cultural capital

**Description:** This research uncovers a paradoxical role of word of mouth in status consumption, such that talking about their status products decreases (rather than increases) consumers' status in the eyes of others.

### **EXTENDED ABSTRACT**

#### **Research Question**

Prior research has shown that consumers are inclined to share word of mouth (WOM) about their status products because they believe that doing so will increase their status in the eyes of observers (Berger 2014; Lovett et al. 2013). But, does talking about their status products really increase consumers' perceived status? We predict that, paradoxically, sharing WOM about their status products decreases consumers' perceived status, and this effect is driven by perceived lack of the WOM sharer's social assets, also known as *cultural capital* (Bourdieu 1984, 1986; Bourdieu and Passeron 1979).

#### **Method and Data**

Twelve experimental studies were conducted to study the effect of sharing WOM about status products on the sharer's perceived status.

### **Summary of Findings**

Results of 12 experimental studies furnished evidence for the negative impact of WOM on perceived status. We also found support for the mediating role of cultural capital using both mediation and moderation approaches (Spencer et al. 2005). Finally, we teased out alternative explanations, established a number of boundary conditions, and examined downstream consequences concerning the impact of WOM on status inferences.

### **Statement of Key Contributions**

Unlike prior research which focused on examining various antecedents of WOM (Berger 2014; Berger and Schwartz 2011), the present research examines status inferences made about consumers who spread WOM about their status products. Challenging the consumers' belief that talking about their status products will make them look good in the eyes of other people (Berger 2014; Lovett et al. 2013), we demonstrate that such behavior will actually make the consumers look worse in the eyes of others. As a result, by spreading WOM about their status products, consumers are undermining the very goal (i.e., higher status) they are trying to achieve by spreading WOM about their status products in the first place. We provide evidence that this paradoxical effect is driven by inferences about such consumers' cultural capital. We also explore the roles of several critical boundary conditions. Apart from theoretical contributions, our findings offer insights to managers with respect to marketing status products.

References are available upon request.

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## **THE EFFECT OF UNCERTAINTY IN THE PURCHASE SITUATION ON CHOICE DEFERRAL**

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**Keywords:** E-Commerce; Consumer Behavior; Choice Deferral; Signaling Theory

**Description:** Our research investigates how uncertainty in the online purchase situation, measured by the consumer's initial touchpoint with the firm when starting a purchase process, influences a consumer's propensity to defer choice.

### **EXTENDED ABSTRACT**

**Research Question** – Consumers face increased uncertainty in online environments due to the temporal and spatial separation from the seller (Hong and Pavlou 2014). At the same time, online firms face a particularly high rate of choice deferral, meaning consumers deciding to postpone a choice for the time being (Anderson, 2003). We want to bring these two key topics of e-commerce together and examine the effect of uncertainty in the purchase situation, caused by limited knowledge about the online seller and its products, on choice deferral. With our work we aim to answer the following research questions: 1) What is the influence of the consumer's initial touchpoint with the firm on choice deferral? 2) How does the consumer's browsing behavior impact this relationship?

**Method and Data** – We examined our hypotheses using a dataset received from a global travel platform. The dataset comprises longitudinal browsing and transaction data for the full year 2019, resulting in 597,590 unique customer observations. The dependent variable of our analysis, *choice*

*deferral*, measured how many deferrals a consumer made before eventually buying the product. The independent variable, *last touchpoint*, was measured as a binary variable (firm-initiated vs. customer-initiated) following research of Li and Kannan (2014). When firms initiate marketing communications e.g. via display ads, consumers might face increased uncertainty due to limited knowledge on the firm or product. In contrast, a customer-initiated channel e.g. directly typing the firm's URL in the browser, implies experience with this channel and thus a lower level of uncertainty. As moderators we investigated *session duration* and *number of product detail pages (PDPs) browsed* which are proxies for the consumers search for information to reduce uncertainty (e.g. Malhotra, Kim, and Agarwal 2004). We moreover controlled for factors which have shown to influence purchases, especially in the travel sector (booking window, number of passengers travelling, previous consumer-firm relationship) (Ursu 2018). We conducted a negative binomial regression to account for the overdispersion of the non-negative count dependent variable *choice deferral*.

**Summary of Findings** – We found that consumers who initially entered the firm's webpage via a firm-initiated touchpoint have more deferral visits until conversion than consumers who entered the webpage via a self-initiated touchpoint, confirming an increased uncertainty in purchase situations initiated by the firm with negative consequences on conversion behavior (Hongshuang and P.K. Kannan 2014). Moreover, we found that an increased number of PDPs viewed by the consumer weakens the positive relationship between firm-initiated touchpoint and choice deferral, confirming that consumers can mitigate their uncertainty by collecting information on the seller and product (Connelly et al. 2011). The average session duration has no significant effect on the relationship.

**Key Contributions** – We contribute to previous literature in three ways. First, we overcome limitations of prior research on choice deferral, which mainly bases on laboratory evidence. Leveraging secondary real-purchase data enables us to explore how contextual factors such as uncertainty in the purchase situation influence choice deferral (Mintz, Currim, and Jeliazkov 2013) and moreover study actual behavior instead of intentions (Seiders et al. 2005). Second, previous research around uncertainty in the online context mainly considers antecedents of seller uncertainty, such as trust and reputation (Dimoka, Hong, and Pavlou 2012). We contribute to literature by shedding light on outcomes, namely choice deferral. Lastly, we are among the firsts to extend agency (Akerlof 1970) and signaling theory (Spence 1973) to the choice deferral context to explain the mechanism causing choice deferral and considering how information and signals can act as counter measures. This extends theoretical explanations which previously built on information processing theory and decision-making literature (Chernev, Böckenholt, and Goodman 2014).

*References are available upon request*

## **THE INFLUENCE OF THE PURCHASE SITUATION ON BUNDLE PURCHASES – AN EMPIRICAL ANALYSIS IN E-COMMERCE**

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**Keywords:** E-Commerce; Consumer Behavior; Bundle Purchases; Signaling Theory

**Description:** Our research investigates the influence of a customer's stage of shopping process on bundle purchases and the moderating role of the online physical surrounding.

### **EXTENDED ABSTRACT**

**Research Question** – Recently, Moon and Shugan (2018) built on signaling theory (Spence 1973) to establish bundles as quality signals. They found that consumers perceive bundles as signals of popularity or appeal, as sellers have an incentive to bundle popular add-ons to core products to maximize their revenue and profit (Moon and Shugan 2018). With our work, we aim to build on these findings and explore the effects of bundles as signals of popularity. Specifically, we want to answer the following research questions: 1) How does the customer's stage of shopping process relate to bundle purchases? 2) How does the online physical surrounding moderate the relationship of a customer's stage of shopping process and bundle purchases?

**Method And Data** – We tested our hypotheses using a dataset obtained from a German online retailer selling mostly experience products. The dataset combines transaction data from the full 2019 sales period with information about the number of pictures and product descriptions in the online shop. It consists of 276,113 purchased items of which 10% were purchased as bundles. The dependent variable of our analysis is *bundle purchase* (as seen in Harris and Blair (2006)). For our

independent variable *stage of shopping process*, we followed the distinction between an early and a late stage, as introduced by Lee and Ariely (2006). We used firm-initiated vs. customer-initiated last touchpoints as proxies for early vs. late stages of the shopping process based on findings by Li and Kannan (2014). As moderators, we investigated two components of the online physical surrounding, namely the website content and the used device. Additionally, we controlled for several characteristics that have been shown to influence purchase decisions (customer's age, gender, unit price, basket size, discount used, order number). Since our dependent variable is binary, we followed the approach of similar works (e.g. Sahoo, Dellarocas, and Srinivasan (2018)) and conducted a logistic regression.

**Summary of Findings** – We found that an early stage of the shopping process is positively related to bundle purchases supporting the concept that customers in an early stage of the shopping process are more open to external information (Lee and Ariely 2006) and therefore more receptive to the signals that bundles send. Additionally, we found that more detailed website content in the form of product pictures weakens the positive relationship between stage of shopping process and bundle purchases. This weakening effect, however, could not be confirmed for the length of product descriptions, possibly because product descriptions are not as relevant as pictures when buying experience products (Bleier, Harmeling, and Palmatier 2019). Lastly, we found a strengthening effect of mobile devices on the positive main relationship meaning that consumers in an early stage of the shopping process are even more likely to buy bundles when browsing from a mobile device. This confirms that the limited search capabilities of mobile devices (Bang et al. 2013; Chae and Kim 2004) strongly affect consumers during their purchase.

**Key Contributions** – We contribute to the existing literature in three ways. First, we introduce stage of shopping process as an antecedent of bundle purchases and show that it interacts with the

online physical surrounding when making a purchase. Thereby we demonstrate that not only the price and composition of the bundle are closely linked to a preference for bundles (Johnson, Herrmann, and Bauer 1999; Karataş and Gürhan-Canli 2020), but also the situation in which the purchase is made. Second, we are extending the interface between e-commerce and bundling research. E-commerce research has focused mostly on how online-specific factors influence whether a product was purchased (e.g., Gallino and Moreno (2018)). With our work, we are able to demonstrate that website elements and devices also influence which products are purchased (i.e. bundles or individual products). Lastly, we are extending the application of signaling theory (Kirmani and Rao 2000; Spence 1973) in a bundling context and validate a more general theoretical explanation for consumer behavior when purchasing bundles. Moon and Shugan (2018) published a rational model for the question of how bundling itself conveys information to consumers. Our research extends their work by constructing a conceptual model and empirically validating it.

*References are available upon request*



## THE ROLE OF IMPLICIT THEORIES AND STEREOTYPES ON EVALUATION OF NEGATIVE MARKETING EVENTS

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**Keywords:** product harm crisis, brand transgression, stereotypes

**Description:** This paper investigates the influence of implicit theories on perception of brands after a negative marketing event

### EXTENDED ABSTRACT

#### Research Question

How do brand stereotypes and beliefs about relationships (growth vs fixed) affect the evaluation of brands following a crisis event and does the brand position in the market interact with brand stereotypes and implicit beliefs in the evaluation of brands

#### Method and Data

We used an experimental design to compare brands following a negative marketing event. Respondents were recruited from M-Turk in exchange for remuneration. 2 prompts were used to answer the research question; a product prompt and a service prompt. In the product prompt, a microwave oven is presented as having faulty wiring, in the service prompt bank employees are reported to have opened phony accounts and customers incurring charges as a result of their action.

#### Summary of Findings

In the product harm crisis, we used a 2 (brand reputation) x 2 (growth vs fixed beliefs) with brand forgiveness and brand credibility to study the interaction effect. We also hypothesized a main effect of brand characteristic on brand evaluation. There was a significant difference in brand evaluation  $M_{\text{excellent}}=5.420$ ,  $M_{\text{poor}}=4.292$ ,  $F=44.017$ ,  $p<0.01$ ). The interaction effect was significant for brand credibility. The interaction was significant ( $F=5.023$ ,  $P=0.026$ ). As expected in the fixed condition the brand with the excellent rating had a higher brand credibility. In the incremental condition, the poor brand benefited and the gap between the brands lessened (Incremental:  $M_{\text{poor}}=4.621$ ,  $M_{\text{excellent}}=5.322$ ; Fixed:  $M_{\text{poor}}=4.099$ ,  $M_{\text{excellent}}=5.322$ ). In the 2<sup>nd</sup> study we used bank size as the independent variable. The smaller bank was forgiven for the transgression compared to the ( $M_{\text{small}}=4.181 > M_{\text{large}}=3.563$ ). We used the PROCESS model to test for the mediation hypothesis. Intent was entered into the model as the mediation variable. The total effect consists an indirect effect ( $b=.2.172$  CI: .2784 .7279), direct effect ( $b=-.4211$  CI: -1.8602 1.0180) and total effect ( $b=1.7509$  CI: .5743 2.9275).

#### Key Contributions

We contribute to work on implicit theories and brand outcomes after a transgression. Research on how implicit theories affect attribution of blame does not take the brand characteristic into account, instead the focus is on how attributions differ based on fixed or malleability. We argue that brand

characteristics serve as a signal to consumers that interact with implicit theories such that attribution of blame to brands is strengthened or weakened based on the expectation consumers have of that brand. We also contribute to the research on the impact of stereotypes on brand outcomes. The BIAF allows us to anthropomorphized brands, previous research shows that the act of anthropomorphizing a brand increases its susceptibility to negative evaluations because people view its actions in the same way they do an actual person. We show how the BIAF as a form of anthropomorphism affects brand evaluations following a transgression, the dimensions of stereotypes are important in establishing how consumers respond to a negative event.

**THE SAME PROCEDURE AS EVERY YEAR: TIME PRESSURE  
AFFECTING CHRISTMAS GIFT SHOPPING BEHAVIOR**

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**Keywords:** *e-commerce, consumer behavior, gift shopping, time constraint, decision making*

**Description:** *Time constraint in gift shopping situations affects the gift buyer's decision making as well as the perceived purchase quality for both the gift buyer and gift receiver.*

**EXTENDED ABSTRACT**

**Research Question**

Time pressure can be observed in everyday life. A tangible situation regarding time pressure is when we find ourselves in the role of the consumer making a purchase decision differentiating everyday shopping and gift shopping. By assessing purchase behavior in the Christmas shopping environment, we combine two aspects of consumer behavior research, namely time pressure and gift shopping, and build on established findings as well as recent developments in this context. The pressure and the associated uncertainty for the decision-maker in gift shopping with Belk's (1975) two described situational factors, namely the task of purchasing for a certain purpose and temporal factor of measurable time linked to the purchase, is what consumers often perceive when purchasing a gift until a defined deadline. We are amongst the first to investigate the relevance of time constraint for purchase decisions in gift shopping and further assess the perceived purchase quality in this context.

## **Method and Data**

The dataset for our research is based on a cooperation with an online retailer that is amongst the leading businesses in Europe selling experience products and vouchers. The factor of identifying gift purchases makes the dataset unique as investigating purchase behavior in gift shopping situations under time pressure has been a challenge to date. In order to observe customer behavior for gift shopping in a natural environment of time constraints as opposed to experiments, where purchasing behavior is potentially affected, we chose Christmas as a socially defined endpoint causing time pressure and a high share of gift purchases in the days and weeks before. We assess all online purchases from 2016 to 2018 in a timeframe of 30 days before Christmas Eve (December 24). As a result, there are 443,779 purchases in the defined time period and thereof 48,105 can be identified as gift purchases. We apply a multivariate analysis of variance (MANOVA). For each of the depending variables used in the MANOVA, we run individual follow-up analyses and apply the methodology of ordinary least squares (OLS) regressions.

## **Summary of Findings**

Our results show that time constraint significantly affects the purchasing behavior for gifts by applying heuristics making the decision. Especially regarding the product type we find that gift buyers follow personal preferences choosing the gift for another person with increasing time constraints. Furthermore, our findings reveal that the perceived purchase quality is significantly related to the time constraint with both the gift buyer and gift receiver showing lower satisfaction when the gift has been bought under time constraints.

**Key Contributions**

With our study, we contribute to academia and practice: Our findings on the one hand significantly extend consumer behavior research by assessing real customer purchase data analyzing the actual purchase behavior instead of purchase intention. It also illuminates long-term behavior measuring time pressure in days until the final deadline further extending existing research models this context (Suri and Monroe 2003). Furthermore, it closes the gap of prospect and commodity theory being applied to personal decisions so far by transferring them to purchases for another person. It applies both theories to a gift shopping decision noticing that most observations of information processing and decision making are also valid here. On the other hand, this study provides guidance to marketing managers in better predicting the customer's purchase behavior under time pressure confirming most of the observations so far derived in experimental settings, that customers under time pressure apply simplification approaches and heuristic rules as part of their information processing and decision making strategy. As an additional finding, time pressure is not only related to reduced decision quality perceived by the gift buyer but also affects the purchase quality regarding the gift receiver.

*References are available upon request.*

**THE VALUE OF THE UNKNOWN: A FRAMEWORK AND RESEARCH AGENDA  
FOR STRATEGIC SURPRISE MARKETING**

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**Keywords:** uncertainty, surprise, marketing mix, framework

**Description:** In this theoretical paper, we conceptualize the use of marketing practices involving strategic uncertainty and develop a unified framework to understand the firm and customer outcomes of these practices across the marketing mix.

**EXTENDED ABSTRACT**

**Research Question**

In recent years, firms have introduced a plethora of practices involving strategic uncertainty – surprise boxes, buy-and-reveal hotel deals, surprise experiences, teaser advertisements, gamble price promotions, etc. The popularity of these practices, which we collectively refer to as *strategic surprise marketing* (SSM), seems inconsistent with the classic rational economic models that would predict preference for certainty over uncertainty. Drawing on a growing stream of literature across domains (e.g., marketing, economics, psychology, management), we integrate past research and develop a comprehensive framework to describe the benefits of SSM for firms and consumers, thereby demonstrating the richness and complexity of these activities. A key component of the framework is our proposition that surprise practices vary in their

implementation and outcomes across the classic 4P's framework: product, price, place, and promotion. For example, Oreo's "mystery" flavor cookies (product), gamble price discounts such as "pay regular price or 20% off" (price), uncertain store assortments as used by Marshalls or T.J. Maxx (place), and Apple's teaser product announcements (promotion) demonstrate the variety of ways, in which firms can engage in SSM across the marketing mix.

### **Summary of Findings**

First, we develop a comprehensive model to understand the consumer response to surprise practices. Specifically, we identify three stages: (1) *mental engagement* (surprise marketing attracts attention, prompts mental elaboration, and arouses curiosity), (2) *mental simulation* (the consideration of a surprise practice leads to the simulation of possible outcomes and the formation of optimistic resolution expectancies), and (3) *affective response* (surprise marketing generates positive affect and arousal). We use these stages as natural categories and do not assume that they follow a rigid sequence.

Second, we identify the firm outcomes of SSM by discussing how surprise practices could be used for *inventory management* (reducing stockouts and overstocks), *price discrimination* (providing a focal service at a different price level to different segments without compromising brand equity), enhanced *brand awareness* and *brand image*, increased *word of mouth*, and *decreased desensitization* across the 4P's.

Third, using an exploratory customer survey as well as a systematic examination of the marketplace promotion of surprise practices, we identify three primary consumer outcomes of SSM: *preference discovery*, *stimulation*, and *choice conflict reduction*. We discuss each of these elements of the framework across the 4P components and offer propositions for future research.

### **Key Contributions**

In this paper, we develop a comprehensive and unified framework of SSM that can guide *both* practitioners and researchers in their understanding and effective use of such activities. We lay the foundation for future empirical inquiries into the effects of SSM by providing an integrative and parsimonious definition, examining how surprise practices are used in the marketplace, and discussing the implications of SSM for firms and customers. We also discuss several open questions related to category, industry, and consumer moderators that deserve further attention. Though much remains to be learned, we believe that the study of SSM can offer important theoretical insights to understanding consumer behavior under uncertainty, as well as practical guidelines about how companies can successfully employ surprise practices to drive brand value and firm performance.

References are available upon request.



## **WHEN BEATING OTHERS IS MORE ENJOYABLE: THE ROLE OF SELF-ESTEEM IN PRICE COMPARISONS**

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**Keywords:** social comparison, counterfactual thinking, self-esteem, price comparison

**Description:** The buying motive lies in the joy of defeating others rather than the opportunity to beat a low price.

### **EXTENDED ABSTRACT**

#### **Research Question**

In this research, we explore the ability of two theories – counterfactual thinking and social comparison – to predict the purchasing behavior of products offered under price promotions. To imagine counterfactual versions of actual episodes is an essential feature of one’s mental life. Since the counterfactual is an alternative self, compared to other social group members, it is cognitively easier and is likely to be the “default” option when the need for comparative judgment arises. The social comparison, on the other hand, provides accurate appraisals of opinions and abilities to the self by comparing the self to other similar individuals or groups of people. While more abstract, the outcome of such social comparisons could lead to higher self-appraisals regarding one’s purchase ability (relative to the others), which in turn may boost self-esteem – attitudinal phenomenon created by social and cultural forces, and often connected to

emotions and behaviors. This route suggests that an increase in self-esteem followed by strong purchase intention should be detected in social comparisons, but not in counterfactual thinking.

### **Method and Data**

Study 1 employed a one-way (price comparison: social vs. counterfactual) between-subjects design to test the main effect. Results showed that purchase intention was higher ( $F(1, 68) = 28.21, p < .001$ ) in the social condition ( $M_{\text{social}} = 5.50$ ) than in the counterfactual condition ( $M_{\text{counterfactual}} = 3.90$ ) when controlling for confounding variables. Study 2 examine the mediating role of self-esteem. Results showed that the social condition ( $M_{\text{social}} = 5.30$ ) was significantly higher than the counterfactual condition ( $M_{\text{counterfactual}} = 4.42$ ) on purchase intention ( $F(1, 143) = 8.84, p = .003$ ), and that the social condition ( $M_{\text{social}} = 5.81$ ) was significantly higher than counterfactual condition ( $M_{\text{counterfactual}} = 4.78$ ) on state self-esteem ( $F(1, 143) = 48.94, p < .001$ ). A partial mediation relationship was evidenced (95% CI = [.152, .847]). Study 3 provided experimental evidence for the causal pathway between the purchase intention and the state self-esteem. Results revealed that there was a significant effect of the state self-esteem on purchase intention ( $M_{\text{high}} = 5.89, M_{\text{low}} = 3.94; F(1, 57) = 50.03, p < .001$ ).

### **Summary of Findings**

Across three studies, we investigated the explanatory power of social comparison and counterfactual thinking in price comparisons. The finding suggests new guidelines to marketers on how to communicate price benefits to consumers, and how retail stores could strategically advertise the purchase information about other customers to increase the potential consumers' perception of a good deal.

### **Statement of Key Contributions**

This research explores the impact of price comparisons on buying behaviors through the lenses of social comparison and counterfactual thinking. Three studies indicate that the buying motive lies in the joy of defeating others rather than the opportunity to beat a low price. The findings allow marketers to use such differences to customize a company's communication strategy and shape consumers' shopping experience.

## **WHEN COVID-19 MADE YOU SWITCH BRANDS, WILL YOU STICK TO IT?**

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**Keywords:** Pandemic, Brand Switching, Brand Attachment, Repurchase Intentions

**Description:** The article examines whether customers who switched from national brands to private labels during pandemic would continue to purchase private label brands even after the pandemic wanes in the future.

### **EXTENDED ABSTRACT**

#### **Research Question**

Unprecedented shopping behavior such as increased online shopping and hoarding products beyond regular consumption levels during the COVID-19 pandemic left many national brand retailers in distress as they couldn't meet the consumer demand for products, leading to product scarcity and empty shelves in stores, and prompting consumers to switch to private label brands. While this seems to be the new habit, it is unclear if this would become the new norm. The research question that we are trying to answer through this research is – would consumers continue to purchase private label brands even after the pandemic wanes in the future?

#### **Method and Data**

The objective of this research was to test the effect of pandemic on the repurchase intentions of the private brands and the mediation effect of perceived brand attachment on the repurchase

intentions. A between-subjects study ( $N = 193$ ;  $M_{\text{age}} = 34.54$ , 41.97% female) was conducted on Amazon MTurk with 2 (Situation: Pandemic vs. Non-pandemic) conditions where the participants were randomly assigned to one of the two conditions. After priming for COVID-19 condition, all the participants were introduced to a situation where they had a list of grocery items that they needed to purchase for themselves. As the brand of product (National Label) that they usually buy was out of stock, they decided to go ahead and purchase another brand of similar product (Private Label) that was available. The attitude of the participants and their repurchase intentions of the private label brand product in the future was measured using 9-point item scale.

### **Summary of Findings**

A one-way ANOVA showed that participants were more likely to repurchase the item when they were primed with the pandemic situation when compared with the non-pandemic situation ( $M_{\text{RepurchasePandemic}} = 6.24$ ,  $M_{\text{RepurchaseNon-Pandemic}} = 5.69$ ,  $F(1, 192) = 3.98$ ,  $p = 0.04$ ). Mediation analysis using Hayes's PROCESS Model 4 based on a bias-corrected bootstrapping with 5,000 resamples (Hayes, 2017) indicated that perceived attachment towards the brand mediated the effect of the situation (Pandemic vs Non-Pandemic) on the repurchase intentions of the private label brands of the consumers ( $b = 0.34$ ,  $SE = .17$ , 95% CI = [0.01, 0.71]). Further, pandemic had also a significant effect on the perceived brand attachment of the private label brand ( $b = 0.46$ ,  $SE = .22$ , 95% CI = [0.02, 0.89]).

### **Key Contributions**

Our research is an early attempt to understand if the change in consumer purchase behavior during COVID-19, in the form of brand-switching, would continue to grow its roots in the long

run. We find that customers who purchased private label products during COVID-19 show a strong intent to repurchase these brands in the future since they develop an emotional attachment with these brands that helped them during the crisis. Our research contributes to the literature on private label brands by implying that during a crisis such as COVID-19, merely ensuring product availability can lead customers to develop an emotional attachment to the brand, thus exhibiting repurchase intentions in the future. Since customers exhibit strong attachment to private label brands, our research also has a strong managerial contribution as this serves as a great opportunity for managers to indulge more with consumers through promotions, unique value propositions, and retention programs. Thus, any marketing efforts from private label brands during this crisis should fetch promising results in the form of customer loyalty and retention.

References are available upon request.

# Which type of users are more addicted to Computer games?

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## Abstract

We focus our study on users of computer games by conducting a multi-disciplinary review of literature to identify their salient psychological needs with the goal of providing answers to the following questions. Is the psychological needs profile of users of computer games different from other software users and if so, what is the difference? Does the user's psychological needs profile vary with time? How do the psychological needs impact the behavioral intention and actual usage of computer gamers? The answers to these questions will enable product/project managers of computer games software to better understand their users and develop strategies to meet their specific needs.

intention, frequency and time of play. Of these three needs, Autonomy had the maximum positive impact, followed by Pleasure-stimulation, while Self-Esteem had a negative impact. The findings of this study provide a deeper insight into the user profile of computer gamers and which needs, when fulfilled, will motivate users to play the computer game more enthusiastically. Product/project managers of computer games companies can use their innovative abilities to provide product features that exploit these salient needs of users to retain and further increase their user base.

## Statement of Contribution

Computer games have been an increasingly popular leisure activity in the past 40 years (Boyle, Connolly and Hainey, 2011). Yet, to the best of our knowledge, we still do not know what distinguishes loyal computer gamers from other computer users. Using the psychological need theory, we hypothesize the needs characteristics of gamers and test our arguments in a longitudinal study. We find that intensive gamers differ significantly from others in eight out of ten psychological needs. Among these eight needs, three needs - the user needs for autonomy, pleasure-stimulation and self-esteem - were determinant in predicting

## Introduction

There is a stream of research on fundamental human needs starting with McDougall (1908), Freud (1920), Murray (1938), Maslow (1954), Baumeister and Leary, (1995) and Reis, Sheldon, Gable, Roscoe and Ryan (2000). In a more recent development, Sheldon, Elliot, Kim and Kasser (2001) examined 10 different feelings. The identified set of 10 basic human needs (autonomy, competence, relatedness, physical thriving, security, self-esteem, self-actualization, pleasure-stimulation, money-luxury, and popularity-influence), are in line with past theories within the human motivation literature stream as elaborated below (Sheldon, Elliot, Kim and Kasser, 2001).

Of these 10 needs, the needs for self-esteem, relatedness, autonomy and competence were found to be most salient followed by pleasure-stimulation, physical thriving, self-actualization, security, popularity influence and money-luxury (Sheldon, Elliot, Kim and Kasser, 2001). Further, there are individual differences in psychological needs (Deci and Ryan, 2000; Kakar, 2020 a,b,c,d,e,f). For example, the individuals' need for competence and relatedness may vary. Studies by Richer, Blanchard, and Vallerand (2000) and Richer and Vallerand (2000) have found that individuals high in need of competence are low in need of relatedness. We use the 10 fundamental psychological needs of users to identify the salient psychological needs of computer gamers and their role in predicting the usage of computer games.

## Theory Development

Gamers fulfill users need for pleasure-stimulation through fun and enjoyment derived from playing games (Vorderer et al.,

2004). New adventures in the virtual world and overcoming unexpected hurdles to accomplish challenging goals provide novelty and stimulation thereby keeping users interested in playing computer games. Computer games enthusiasts also experience other kinds of stimulation-pleasures through the medium of games such as the pleasure of "losing oneself" or dissolution and the "evasive" pleasure of being out of control (Lauteren, 2002; Kakar, 2012a,b). Games help users escape harsh realities of the world by providing a temporal sphere that is detached from everyday life and outside the powers of social control. In addition, playing games especially destructive games provides the user with the pleasure of being nasty without bearing its negative consequences (Abbink, and Sadrieh, 2009). Numerous studies have shown that users often experience "flow" while playing games (e.g. Sherry, 2004; Boyle, Connolly, Hainey and Boyle, 2012; Chang, 2013; Kakar, 2018a,b). Flow is a "state in which individuals are so involved in an activity that nothing else seems to matter" and results in individuals experiencing an emotional state of optimal pleasure (Csikszentmihalyi, 1990). Thus,

Hypothesis 1: Users who over-indulge in computer games have a higher need for pleasure-stimulation

Hypothesis 2: Users' need for pleasure-stimulation will positively impact their Behavioral Intention to play computer games and the time and frequency of their play

The users' need for autonomy can be fulfilled through non-directed action such as playing computer games and can be contrasted with controlled activities such as accomplishment of work through the use of utilitarian software. Playing games restores control to the user herself and is unlike work where the control of which tasks should be accomplished and how (process) lies with the



supervisor. Threats, deadlines and surveillance associated with work related activities are known to undermine intrinsic motivation and autonomy (Amabile, DeJong and Lepper, 1976; Deci and Cascio, 1972; Harackiewicz, Manderlink, and Sansone, 1984; Kakar and Kakar, 2018a, b). By contrast playing games is a voluntary self-directed activity of the user which enhances intrinsic motivation (Bartle, 2004; Ryan, Rigby and Przybylski, 2006; Kakar, 2017). Thus, we expect users with highly degree of autonomy to have a higher preference for playing games.

Hypothesis 3: Users who over-indulge in computer games have a higher need for autonomy

Hypothesis 4: Users' need for autonomy will positively impact their Behavioral Intention to play computer games and the time and frequency of their play

Computer games are known to function as a coping mechanism for individuals and help them in facing the harsh realities of life. (Ohler & Nieding, 2006; Vorderer, Steen and Chan, 2006; Kakar, 2015a,b,c,d). In our predominant performance oriented culture (Klimnet and Hartman, 2006; Kakar, 2014), computer games helps individuals overcome performance-based social rejection and achieve the idealized self by allowing them to overcome challenges. Most games allow personalization of difficulty levels which enables users to limit their defeats and score victories. People with social competence deficits and anxieties engage in interaction in the virtual world through the medium of games (Wölfling and Grüsser, 2008). Computer game addicts are known to have a lower self-esteem (Funk and Buchman, 1996). Computer games can allow people with low self-esteem to flout potency and masculinity for example through the medium of games thereby enabling them to realize

their ideal-self in the virtual world (Funk and Buchman, 1996; Kakar, 2016 a, b). Thus,

Hypothesis 5: Users who over-indulge in computer games have a lower self-esteem

Hypothesis 6: Users' need for self-esteem will negatively impact their Behavioral Intention to play computer games and the time and frequency of their play

## Method

### Study Setting and Design

The longitudinal study was conducted in a university setting with student subjects. Each subject in the study answered a questionnaire-based survey that captured data on demographics and their actual usage of computer games. The actual usage of games software was captured using a tool developed for the purpose. Questions were also included to determine the users' needs profile (see Appendix A). The sample size for the study was determined based on the effect size found during a preliminary study. The preliminary study was used to pilot the full-scale study by pre-testing the survey instrument. The study was conducted with 64 subjects. Assuming a power of 0.8, alpha=0.05 (one tail) and taking in consideration the large effect size obtained in the preliminary study, a look up of Cohen's power primer (Cohen, 1992) gave the sample size of 54 subjects.

### Participants

The subjects for the study were recruited from a medium-sized public university in the south. The college of business of this university encourages research exposure by awarding students extra credit for research participation. An email was sent to all 2304 students of the college of business inviting them to participate in the study. We received a total of 240 responses. Only those students

who agreed to provide data in both rounds of the study, at the end of the Fall semester, 2019 and at the end of Spring semester 2020 were recruited for the study. We received a total of 240 responses. Based on this response we invited all 240 students to participate in the study. Among those invited to participate 222 actually participated in both rounds of the study. The students who participated in the pilot study were not invited to participate in the actual study. The participants were 19-23 years old. 51.5% respondents were female, and 49.5 % respondents were male.

### Measures Used

The 10 human psychological needs (see Appendix A for items) were each represented by the 3-item scale (Sheldon, Elliot, Kim and Kasser, 2001). For Behavioral intention (BI) we adapted the Venkatesh, Thong and Xu (2012) scale using following 3 items:

1. I often think about playing computer games
2. I would like to play computer games in my spare time
3. I will continue to play computer games frequently

All measures used a 9-point Likert scale with anchors of 9 (strongly agree) and 1 (strongly disagree). Responses were coded such that high levels of the constructs are represented by high values. Some items were reverse coded. The overall value for each construct was created by averaging the user responses. For actual system usage we collected historical data in the first and second rounds on the average frequency of use per day of computer games (FRQ) and the average time used per day (TIME) over the previous 4 months.

### Procedure

All respondents who participated in the study agreed to provide the browsing history of all the computing devices they used. A software tool was provided to the participants that automatically generated their actual usage information of computer game. The software used the list of top 100 PC games for 2018 and 2019 (<https://www.pcgamer.com/the-pc-gamer-top-100-now/>) and top 100 mobile games

<https://www.pocketgamer.com/articles/069663/the-100-greatest-mobile-games-ever/>)

and was run by the participants themselves to provide the data. Participants answered the survey questionnaire regarding demographics their psychological needs (Appendix A) and BI to play computer games at the beginning of Fall 2019 semester. They also answered the questionnaire on their psychological needs and BI to play computer games at the end of the semester Fall 2020 semester. Two groups of participants were created for analysis. The first group of participants (constituting Group A of 73 students) were those that played computer games for one standard deviations above the mean time for the group of all participants. The second group consisted of remaining subjects (constituting Group B of 149 students).

### Method of Analyses

Factor analysis was performed on the data set obtained from the participants to establish validity and reliability of the measures used in the study. Further, the correlation matrix and internal reliabilities of the measures were also examined. A paired t-test was performed for within group analysis of data and multiple two sample t-tests were performed for across user group comparison of game usage.

We adapted the widely accepted (Brandt, 1987; Anderson and Mittal, 2000; Brandt, 1988; Mittal, Ross and Baldasare, 1998)

PRCA (Penalty Reward Contrast Analysis) technique for analyzing the data collected in Round 1 and Round 2 to test the hypotheses. By having two sets of dummy variables representing each group indicating high value (1 SD above mean) of game usage representing group A and a low value of (1, 0) representing Group B, multiple regression analysis is conducted with game usage and BI as independent variable. Using this statistical approach, we get two regression coefficients for each user need, one (high) representing the impact of high level of psychological need on computer usage and the other representing the impact of low level of psychological need on computer usage.

## Results and Analyses

The results of the factor analysis using IBM® SPSS® Statistics Version 19 (see Appendix B) show that the factors extracted using Varimax rotation represented the scales used in the study: the autonomy scale represented

by items A1 to A3, the competence scale represented by items C1 to C3, the relatedness scale represented by items R1 to R 3, the physical thriving scale represented by PT1 to PT3, the security scale represented by items SE1 to SE3, the self-esteem scale represented by items ST1 to ST3, the self-actualization scale represented by items SA1 to SA3, the pleasure-stimulation scale represented by items PL1 to PL3, the money-luxury scale represented by items ML1 to ML3, and the popularity-influence scale represented by items P1 to P3).

The high loadings (>.50) within factors demonstrated convergent validity of items within scales, and the no cross loadings (>.40) between factors demonstrated discriminant validity between scales. The internal reliabilities of all the scales used in the study were greater than .70 (see Table 1). Further none of the inter-correlations between the scales were greater than .65 (Table 2).

Name of the scale	Cronbach's Alpha	Number of Items
Behavioral Intention	0.90	3
Autonomy (A)	0.81	3
Competence (C)	0.80	3
Relatedness (R)	0.79	3
Physical-thriving (PT)	0.78	3
Security (SE)	0.83	3
Self-Esteem (ST)	0.77	3
Self-Actualization (SA)	0.81	3
Pleasure Stimulation	0.84	3
Money luxury (ML)	0.81	3
Popularity Influence (P)	0.84	3

**Table 1. Internal Reliability of Scales**

	A	C	R	PT	SE	ST	SA	PL	ML	P	BI
A	1.00										
C	-.32*	1.00									
R	-.22	-.21	1.00								
PT	.40*	.31*	.21	1.00							
SE	.38*	.32*	.39*	.21	1.00						
ST	.33*	.37*	.20	.32*	.20	1.00					
SA	.39*	.41*	.16	.31*	.12	.32*	1.00				
PL	.31*	.10	.31*	.20	-.09	.21	.30*	1.00			
ML	.22	.31*	.21	.11	.21	.20	.21	.33*	1.00		
P	-.18	.34*	.38*	.20	.41*	.21	.20	.32*	.35*	1.00	
BI	.41*	.17	.23	.21	-.18	.19	.32*	.48*	.16	.12	1.00

\* p < .05

**Table 2. Correlations**

Psychological Need	A	C	R	PT	SE	ST	SA	PS	ML	PI
Round 1	7.2	6.9	7.1	6.4	6.6	6.6	6	6.9	6.6	7.2
Round 2	7.2	6.9	7.1	6.9	6.6	6.6	6	7.1	6.6	7.2
Difference	0	0	0	0.5*	0	0	0	0.2*	0	0

\*p < .05

**Table 3. Users' Psychological Needs in Round 1 and Round 2**

From Table 3 we can see that except for user need for Physical Thriving and the user need for Pleasure Stimulation the user needs in Round 1 and Round 2 were relatively stable.

Psychological Need	A	C	R	PT	SE	ST	SA	PS	ML	PI
Group A	7.2	6.9	7.1	6.4	6.6	6.6	6	6.9	6.6	7.2
Group B	7.8	6.1	6.7	6	5.7	6.4	5.7	7.7	6.4	7.8
Difference	0.6*	-.8*	-.4*	-.4*	-.9*	-0.2	-.3*	0.8*	-0.2	0.6*

\*p < .05

**Table 4. Users' Psychological Needs of Group A and Group B in Round 1**

Psychological Need	A	C	R	PT	SE	ST	SA	PS	ML	PI
Group A	7.2	6.9	7.1	6.9	6.6	6.6	6	7.1	6.6	7.2
Group B	7.8	6	6.7	6.4	5.7	6.4	5.7	7.7	6.4	7.8
Difference	0.6*	-.9*	-.4*	-.5*	-0.9	-0.2	-.3*	0.6*	-0.2	0.6*

\*p < .05

**Table 5. Users' Psychological Needs of Group A and Group B in Round 2**

From Table 4 and 5 we can see that except for user needs of security and money luxury, the psychological needs profile of users in Group A (heavy users of computer games) and Group B (not so heavy users of computer games) in Round 1 as well and Round 2 were significantly different.

Behavioral Intention (BI)				Frequency (FRQ)				Time of Usage (TIME)			
Round 1 overall	Round 2 overall	Round 1 group A	Round 2 group A	Round 1 overall	Round 2 overall	Round 1 group A	Round 2 group A	Round 1 overall	Round 2 overall	Round 1 group A	Round 2 group A
5.71	7.13	7.42	8.31	1.22	1.43	1.54	1.64	0.22	0.64	0.44	0.79

Table 6, Users' Psychological Needs of Group A and Group B in Round 2

From Table 6 we can see that the behavioral Intention to play games and actual usage (FRQ and TIME) were higher for the Group A then for the overall group of subjects in

both rounds 1 and round 2. BI, FRQ and TIME were higher in round 2 than in round 1 for both group A and the overall group.

Psychological Needs ->		A	C	R	PT	SA	ST	SE	PS	ML	PI
PRCA	Low	.02	.08	0.03	.18	.07	.04	.20*	.06	.023	.05
	High	.63*	-0.5	-0.05	-.14	-.06	.04	-.38*	.54*	0.18	.17

\*p < .05

Low= Regression Coefficient at low need

NI=Regression Coefficient at high need

PRCA= Penalty Reward Contrast Analysis

Table 7. Results of regressing high and low levels of user needs on BI Round 1

Psychological Needs ->		A	C	R	PT	SA	ST	SE	PS	ML	PI
PRCA	Low	0.17	0.15	0.13	0.22	0.20	0.13	0.29*	0.18	0.31	0.11
	High	.72*	0.08	0.02	0.00	0.01	0.10	-.44*	0.63*	0.25	0.25

\*p < .05

Low= Regression Coefficient at low need

NI=Regression Coefficient at high need

PRCA= Penalty Reward Contrast Analysis

Table 8. Results of regressing high and low levels of user needs on BI Round 2

The results of Table 7 and 8 show that as hypothesized users with high need for Autonomy, Pleasure-Stimulation and Self-

Esteem positively impacted BI. The impacts of other psychological needs on BI were not significant.

Psychological Needs ->	A	C	R	PT	SA	ST	SE	PS	ML	PI
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<b>PRCA</b>	<b>Low</b>	0.16	0.13	0.15	0.37	0.16	0.14	0.30*	0.21	0.30	0.12
	<b>High</b>	.68*	0.08	0.05	0.03	0.00	0.11	-.40*	0.59*	0.24	0.24

\*p < .05

Low= Regression Coefficient at low need

NI=Regression Coefficient at high need

PRCA= Penalty Reward Contrast Analysis

Table 9. Results of regressing high and low levels of user needs on FRQ Round 1

Psychological Needs ->		A	C	R	PT	SA	ST	SE	PS	ML	PI
<b>PRCA</b>	<b>Low</b>	0.11	0.09	0.17	0.39	0.13	0.09	0.26*	0.24	0.30	0.09
	<b>High</b>	.73*	0.06	0.04	0.05	-0.02	0.09	-.39*	0.64*	0.26	0.23

\*p < .05

Low= Regression Coefficient at low need

NI=Regression Coefficient at high need

PRCA= Adapted Penalty Reward Contrast Analysis

Table 10. Results of regressing high and low levels of user needs on FRQ Round 2

Psychological Needs ->		A	C	R	PT	SA	ST	SE	PS	ML	PI
<b>PRCA</b>	<b>Low</b>	0.12	0.11	0.13	0.43	0.11	0.07	0.23*	0.24	0.34	0.08
	<b>High</b>	.75*	0.10	0.04	0.03	-0.06	0.08	-.36*	0.65*	0.26	0.20

\*p < .05

Low= Regression Coefficient at low need

NI=Regression Coefficient at high need

PRCA= Adapted Penalty Reward Contrast Analysis

Table 11. Results of regressing high and low levels of user needs on TIME Round 1

Psychological Needs ->		A	C	R	PT	SA	ST	SE	PS	ML	PI
<b>PRCA</b>	<b>Low</b>	0.16	0.09	0.13	0.42	0.12	0.09	0.26*	0.24	0.29	0.04
	<b>High</b>	.76*	0.05	-0.01	0.04	-0.11	0.05	-.38*	0.62*	0.25	0.24

\*p < .05

Low= Regression Coefficient at low need

NI=Regression Coefficient at high need

PRCA= Adapted Penalty Reward Contrast Analysis

Table 12. Results of regressing high and low levels of user needs on TIME Round 2

The results of Table 9, 10, 11 and 12 show that as hypothesized users with high levels of Autonomy and Pleasure-Stimulation, and users with lower levels of self-esteem positively impacted usage of computer games as measured by frequency of use (FRQ) and time of use (TIME) while users with lower levels of self-esteem. The impacts of other psychological needs on FRQ and TIME were not significant.

## Discussion

Thus, all the six hypothesis were supported by the findings in the study. The user levels of the psychological needs for pleasure-stimulation, autonomy and self-esteem impacted not only the BI of users to play games but also the actual usage as measured by FRQ and TIME. The findings of the study showed that overall the users' psychological needs were fairly stable and enduring over time. The significant increase in need for physical thriving and pleasure-stimulation in round 2 could possibly have been due to coronavirus as the first round of the study was conducted in the pre-coronavirus era while the second round was conducted (partly) in the post-coronavirus era. The increase in BI and actual use of computer games in the second round could also be explained by coronavirus and the stay at home orders of the local state government.

Although, there were a significant difference psychological profile of users between Groups A and B in 8 of the 10 psychological needs, the impact of only three psychological needs on BI, FRQ and TIME were significant – pleasure stimulation, autonomy and self-esteem. Further, as can be seen from the absolute values of regression coefficients the impact of autonomy on BI, FRQ and TIME was greater than the impact of pleasure-stimulation on BI, FRQ and TIME which in turn had a greater impact than self-esteem on

BI, FRQ and TIME. The greatest difference in psychological needs between Groups A and B was in Self-Esteem and Competence followed by Pleasure-Stimulation and Autonomy. However, the impact of Competence on BI, FRQ and TIME was not found to be significant. This could be an interesting areas for future research in computer games to explore. Future research can also investigate how the user psychological needs impact the BI, FRQ and TIME for utilitarian and social networking softwares.

## Conclusion

The findings of the study has implications for designing games that will maximize their usage and possibly user choice. Product/project managers of computer games companies should broadly focus on designing their games to enhance user autonomy and pleasure-stimulation. While specific strategies to accomplishing this may differ, in general game developers should focus on maximizing choice of tasks and goals (provide more avenues for accomplishments for users low in self-esteem) flexibility of movement and operations and feeling of control to the user through regular system feedback (enhance autonomy), while at the same time making the story line or plot interesting and enhancing aesthetics and discovery aspects of the game (more pleasure) to keep the user immersed in the virtual environment of the game.

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## **WHY MORE TOILET PAPER MAKES MY LIFE FEEL STABLE: RELIGIOSITY'S INFLUENCE ON PANDEMIC STABILITY-SEEKING CONSUMPTION**

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**Keywords:** religion; stability-seeking consumption; stability; pandemic; social support

**Description:** We find that during times of a pandemic, highly religious consumers experience the greatest disruption to life in comparison to less or non-religious consumers, leading them to engage in more stability-seeking consumption behaviors.

### **EXTENDED ABSTRACT**

**Research Question:** While prior research suggests that highly religious consumers should be more stable through times of uncertainty, in part due to religious support networks, pandemics represent a unique situation where governments restrict large gatherings to prevent disease spread. Thus, in this research, we ask how might pandemics influence stability-seeking consumption behavior of consumers high (vs. low) in religiosity?

**Method and Data:** We systematically tested our hypotheses across a series of three studies.

**Summary of Findings:** Study 1 shows that priming awareness of restricted in-person religious gatherings increases consumption in comparison to a general religious prime or control condition. Study 2 confirms that consumers with higher (lower) levels of religiosity are the most (least) likely to increase consumption. Additionally, Study 2 reveals that pandemic concern and stability found through purchasing sequentially mediate this relationship. Finally, Study 3 provides practical implications through governmental messaging revealing that stability-based messaging reduces consumption in comparison to standard social distancing messaging.

**Statement of Key Contributions:** Our research builds on the theory of subjective wellbeing homeostasis and control theory to show the importance of religion in informing when stability-seeking consumption likely occurs. We also focused our examination on pandemic stability-seeking consumption behavior, which is likely to be different from other situations where religious consumers are able to access their consistent routine of religious service attendance and social support from their religious community. Additionally, we build on the growing body of literature examining religion's influence on consumption to show that religion is critical to incorporate in understanding consumer responses to times of uncertainty, particularly during a

pandemic. Our work is also valuable for non-profit organizations, for-profit firms, and policy makers. Our findings suggest that religious institutions should provide discussion on how feeling socially isolated may lead to increased purchasing behavior for religious individuals. Marketers and policy makers also have a role to play in supporting religious and non-religious consumers alike during a pandemic. Religious consumers need to feel a sense of consistency, stability, and social support. Alongside the public service announcements from Study 3, brands can also provide this through messaging highlighting how they are remaining consistent and stable during times of uncertainty, such as a pandemic.

## **WHY WE FOLLOW A RETAILER RECOMMENDATION?**

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**Keywords:** recommendation label, social proof, risk avoidance, material versus experiential products

**Description:** The risk-avoidance (vs. social-proof) function of experiential (vs. material) products could be amplified to encourage consumers to follow online recommendations.

## **EXTENDED ABSTRACT**

### **Research Question**

Online retailing has been a success story in the past two decades. A large part of the success is due to the way online retailers integrate on-site recommendations into every possible purchase situation. When a recommendation label is attached to a product, it has two potential consequences on product evaluations. First, the recommendation label may provide a quick shortcut to infer the overall quality of a product. Second, the semantic meaning of the recommendation label could affect the interpretation of other available attributes. In this regard, we suggest that a recommendation label will help the product stand out at the time of purchase decision (H<sub>1</sub>). Specifically, consumers will prefer to reduce perceived risk in choosing experiential products (H<sub>2</sub>) and seek social proof in selecting material products (H<sub>3</sub>) when they are following recommendations.

## Method and Data

Study 1 employed 2 (recommendation: presence vs. absence)  $\times$  2 (product: material vs. experiential) mixed-subjects design. An ANOVA on purchase intention was significant ( $F(1, 71) = 106.59, p < .001$ ), showing that respondents in the recommendation label condition had higher purchase intentions ( $M_{\text{presence}} = 6.49$ ) than those in the no label condition ( $M_{\text{absence}} = 4.53$ ). Study 2 conducted a 2 (Product: material vs. experiential)  $\times$  2 (recommendation: presence vs. absence) between-subjects design. Results showed a significant main effect of recommendation ( $F(1, 130) = 11.02, p = .001$ ). The interaction between recommendation and product type was not significant ( $F(1, 130) = .001, p = .976$ ); neither was the main effect for product type ( $F(1, 130) = .055, p = .815$ ). In the experiential product group, a risk-avoidance effect was detected ( $M_{\text{presence}} = 6.72, SD = .46; M_{\text{absence}} = 6.01, SD = .84; F(1, 64) = 16.80, p < .001$ ), while the social-proof effect was non-significant. In contrast, in the material product group, a social-proof effect was detected ( $M_{\text{presence}} = 4.54, SD = 1.69; M_{\text{absence}} = 2.04, SD = 1.44; F(1, 64) = 41.30, p < .001$ ), while the risk-avoidance effect was attenuated.

## Summary of Findings

This research builds on and adds to the online persuasion literature. Specifically, the product description of experiential goods should amplify the risk-avoidance function when they accompany recommendations, and the webpage design for material goods should give consumers a feeling of social proof to accommodate the recommendations.

## Statement of Key Contributions

This research examines the impact of recommendation labels on purchase intentions in online settings. For experiential products, the recommendation label performs a risk-avoidance function to enhance consumers' purchase intentions; for material products, the recommendation label acts as a social-proof to elevate purchase intentions.

## **YAY OR NAY? INVESTIGATING SURPRISE ACROSS CONSUMER SELF-GIFTING MOTIVATIONS**

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**Keywords:** Self-gifts, surprise, reward, therapy

**Description:** Our study finds that consumers who engage in therapeutic self-gifting to cheer themselves up after a failure are indifferent to the inclusion of surprise but those engaging in celebratory self-gifting to reward themselves for an accomplishment prefer to maintain their positive mood by choosing their own self-gift and not risking surprise.

### **EXTENDED ABSTRACT**

#### **Research Question**

Self-gifting has long attracted research attention due to its unique nature (the giver is simultaneously the recipient) and its many differences from interpersonal gifting (Mick and DeMoss 1990; Mortimer, Bougoure, and Fazal-E-Hasan 2015; Weisfeld-Spolter, Rippe, and Gould 2015). For instance, self-gifts have almost always been assumed to be premeditated, given the logical sequence that consumers would have to first decide to buy a gift for themselves before actually going ahead to do so.

As the retailing landscape evolves, however, it is becoming increasingly possible to inject one more ingredient into this mix, that of surprise. While marketing practitioners have long experimented with infusing uncertainty in the purchase process (e.g., through raffles,



lotteries, and mystery giveaways), those in select purchase categories are now doing so even for products and experiences that are often bought as self-gifts (Kestenbaum 2017; Matthews 2019). Consumers can increasingly choose to have someone else curate a purchase for them such that the final product or experience is almost a complete surprise at the time of consumption (e.g., subscription boxes like Ipsy and Birchbox, or travel companies like PackupGo). This leads us to our focal research question: How does the element of surprise impact the consumer self-gifting experience?

### **Method and Data**

We conducted two studies to investigate the impact of surprise across two primary self-gifting motivations: reward and therapy. Briefly, consumers engage in: (a) reward self-gifting when they buy something for themselves to celebrate an accomplishment, and (b) therapy self-gifting when they buy something to cheer themselves up after a failure or disappointment. In Study 1, we examined this effect in a 2 (Self-gifting motivation: Reward vs. Therapy) x 2 (Surprise: Surprise vs. No surprise) between-subjects design. In Study 2, we examined the underlying mechanism using a similar study design. Additionally, we measured mood at two points: one after participants read the accomplishment or failure scenario, and once again after it was revealed to them whether their self-gift was going to be a surprise or not. In both studies we captured their anticipated satisfaction and word-of-mouth (WOM) with the self-gifting experience as the dependent variables.

### **Summary of Findings**

In Study 1, participants in the self-gift reward conditions reported higher satisfaction when they could choose the self-gift themselves than if the self-gift was a surprise. For therapy self-gifting, we observed no significant differences in satisfaction between the Surprise and No-surprise conditions. A similar pattern of results was also obtained for WOM. In Study 2, we

replicated the results of Study 1. Additional mediation analyses provided further insight into the process behind this effect as we found that, for reward self-gifting, mood change mediated the effect of surprise on satisfaction. However, we did not find a similar mediation effect for therapy self-gifting.

### **Statement of Key Contributions**

This research adds to two key streams in marketing discourse: self-gifting consumer behavior (Mick and DeMoss 1990; Mortimer, Bougoure, and Fazal-E-Hasan 2015) and the use of surprise in marketing (Laran and Tsiros 2013; Valenzuela, Mellers, and Strebel 2010; Vanhamme 2000). While prior research has documented that surprise improves purchase likelihood for affective or emotion-laden purchase contexts, we find that this is not always the case for a context like self-gifting.

While therapy self-gifting reflects an indifference toward the inclusion of surprise, reward self-gifting, in contrast, suffers when surprise is brought to the mix. These findings should be of equal interest to retailers and consumers as recent retailing developments (for instance, subscription boxes and outsourced tourism planning for ‘mystery trips’) increasingly allow surprise to be incorporated in purchases that consumers make during self-gifting. Our research provides a way forward by illuminating the instances of self-gifting where surprise is likely to improve the consumption experience and those where surprise may detract from it.

References are available upon request.

## **“I HOPE EVERYTHING IS OK”: INVESTIGATING THE MITIGATING EFFECT OF BEING WARM IN INTERACTION FAILURES WITH VOICE ASSISTANTS**

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**Key words:** voice assistant, warmth, interaction failure, arousal

**Description:** This study examines the effect of warmth on consumers reactions to interaction failures with voice assistants.

### **EXTEND ABSTRACT**

#### **Research Question**

Despite of the increasing popularity of voice assistants, extant literature on human-computer interaction (HCI) suggests that the technologies behind them --- such as natural language processing (NLP) and automatic speech recognition (ASR) face greater challenges and limitations because of the complexity of human language (Shneiderman, 2000; Forsberg, 2003). For example, voice assistants suffer from the known limits of deep learning algorithms, which means they can only work in the distinct domains they've been trained for. As soon as an user gives them a command they don't know about, they'll either fail or start acting in erratic ways (Dickson, 2018). Anecdotal evidences can also be found on mass media and product reviews where consumers share their frustration and disappointment from their countless interaction failures. Since these negative incidents are bound to happen and could lead to discouragement of interaction or even total abandon, how can we better handle interaction failures? This research intends to answer the question by drawing from both Computers As Social Actors (CASA) research paradigm (Nass & Moon, 2000; Nass & Brave, 2005) and social psychology literature.

#### **Method and Data**

We conduct an experiment with 17 participants. Using Amazon Polly (a neural Text-to-Speech software), we simulated a voice assistant called “Olivia”. The design of the experiment was a

within-subject study where each participants had a total of 6 verbal interactions (e.g., tasks) with Olia. All participant have encountered two successful interactions (constant for all participants) and four failed interactions. Warmth was a within-subject factor and participants received both high-warmth feedback and low-warmth feedback, for the failure condition. Warmth was manipulated by expressing traits such as sympathy, politeness, sociability and kindness in the voice assistant's verbal feedback. In each task, participants were required to form a request based on a specific scenario.

We used electrodermal activity (EDA) which measures arousal to assess the overall experience of the interaction as a proxy of engagement (Charland et al. 2015). The main advantages of physiological measures are that they can be captured in a non-invasive way in real time without distracting the participants' attention during the experience (Dirican & Göktürk 2011). In addition, we also measured perceived warmth of the voice assistant (Fiske et al., 2002), felt frustration, and forgiveness.

### **Summary of Findings**

*Warmth and arousal.* Results from our analyses suggest that the warmth manipulation was successful: the high-warmth feedback from the voice assistant was perceived as warmer than the low-warmth feedback ( $M_{\text{high-warmth}}=4.94$ ,  $M_{\text{low-warmth}}= 4.39$ ,  $t(32)=3.63$ ,  $p= 0.0029$ ). In order to assess their level of arousal during interaction, we first analyzed the results from EDA, which shows participants' physiological arousal during the interaction. Results from t-tests suggest that the participants 'arousal was significantly higher when the voice assistant responded with high warmth than when with low-warmth ( $M_{\text{high-warmth}}=-0.099$ ,  $M_{\text{low-warmth}} = -0.116$ ,  $t(32) = 3.37$ ,  $p=0.015$ ). In other words, the participant was more emotional aroused when they received a warmer feedback from the voice assistant, even though the interaction was a failure. Therefore, H1 was supported.

*Frustration and forgiveness* We also predicted that in the case of a failed interaction, a voice assistant which sounds warmer should reduce felt frustration and increase consumers' tendency to forgive. Our results showed supporting evidence for both. First, it was observed that although the significance was only marginal. Therefore, H2 and H3 were both supported.

### **Key Contributions**

Our findings provide three contributions to the literature. First, we add to the HCI and consumer-AI interaction literature by investigating interaction failure, a context happens quite often in consumers 'everyday interaction with voice assistants while underexplored in academic research. Second, by studying the effect of warmth in voice assistants, we contribute to the CASA research paradigm by showing that consumers also follow the same principles when interacting with

voice assistants as they do with human, where being warm is equally important in this context. Third, we also make a methodological contribution by employing physiological measures in accessing consumers' interaction experience with voice assistants, which provide new insight in addition to commonly used methods such as questionnaire, dairies and interviews.

Managerially, this research offers important implications for voice assistant designers and developers. The fact that simply making a voice assistant being perceived warmer by consumers can create a buffering effect in the case of flawed interaction is an effective and efficient tactic for dealing with failures, especially when current technologies are not able to ensure perfect interactions all the time. Therefore, results again confirmed the importance of the "human touch" in consumer interaction with voice assistants.

*References are available on request.*

# **Consumption, Markets and Culture**

## **ANTI-CONSUMPTION AT THE NEXUS OF CULTURE AND RELIGION**

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**Keywords:** Anti-consumption, culture, religion, Islam, ethnography

**Description:** Drawing on in-depth interview data from an Islamic orthodox social movement in Pakistan, we investigate how participants invoke religious ideology to forge anti-consumption behavior that operates in opposition to cultural norms and expectations.

### **EXTENDED ABSTRACT**

#### **Research Question**

While extant scholarship has offered important insights into unraveling the anti-consumption phenomenon, thus far researchers have paid only scant attention to how two important sociological concepts, culture and religion, shape anti-consumption. While culture itself has been the persistent subject of consumer research, relatively little thought has been devoted to how culture intersects with anti-consumption, particularly as we know that anti-consumption is not simply the opposite of consumption (Chatzidakis et al. 2013). In addition, accounting for how religion as a social and an identity-making force manifests in anti-consumption is critical inasmuch as religion is one of the pivotal factors that inform (anti-) consumer behavior in the marketplace. In this article, we seek to address the lacuna in the existing scholarship by investigating the interplay between culture and religion in anti-consumption thought and

practice. In this regard, we question how religion-based anti-consumption conflicts with cultural norms and practices.

### **Method and Data**

We used in-depth interviews for this study. However, the first author embarked on an ethnographic sojourn with Tablighi Jamaat (TJ) participants in order to understand the movement's people and practices as an insider.

Data was collected from 2014 to 2020. Having some links within the TJ community, the first author was well placed to empirically operationalize this study. To undertake the multi-sited ethnography, the first author lived with 10 other TJ participants for 40 days in three cities and towns in Pakistan.

We purposely selected 25 TJ participants using the snowballing technique. Being familiar with the 'natives', the first author chose informants using his own personal contacts and then used them as references to other potential research participants; this process iteratively continued until the desired number of subjects were obtained. The interviews, conducted on-site or at participants' workplace or homes, were audiotaped for verbatim transcription and analysis. The interviews ranged from 41 minutes to three hours.

The interviews addressed issues of education, occupation, process of affiliation with Tablighi Jamaat, life goals, family, understanding of TJ, stories from TJ life, transformation stories, myths, and consumption choices and experiences over time.

### **Summary of Findings**



We unraveled four forms of anti-consumption that present tensions between informants' religious beliefs and Pakistani cultural norms.

TJ anti-consumers face **identity-related** pressures that go against the prevailing norms of Pakistani society. Some noticeable changes that occur in TJ participants are the growth of facial hair, wearing long loose clothing called the *shalwar kameez*, and the donning of a turban or cap. It is the combination of the attire with the long beard that becomes problematic – a visible sign of religiosity.

The simplicity that is prescribed by Islam is also evident in the mundane **materiality** of a TJ participant's life. As part of TJ guidelines, participants adopt a less materialistic, less conspicuous consumer lifestyle including the exclusion of certain brands.

Another sticking point between TJ anti-consumption edicts and norms shaped by society includes gender segregation. Condemning extra-marital relations, TJ guidelines permit only cross-gender relations between husband and wife or one's immediate family.

Consumer culture is prevalent in Pakistan's urban society. People frequent shopping malls, restaurants, hotels and the like. However, **social spaces** where intermingling between genders takes place are viewed negatively by TJ anti-consumers.

### **Key Contributions**

This study elucidates how religion helps consumer navigate marketplace choice. We find an example where contemporary consumers continue to be inflected by traditional values. This means that while detraditionalization proceeds as institutional structures crumble in the face of

increased marketization in much of present-day society, there remains also an impetus towards traditionalization among segments of the population where choice is a social construction whose primary influence is religion.

We unravel the process of people submitting to the prescriptions of a religious institution and then embattling cultural precedence through their anti-consumption ideology. With particular interest to corporate marketers, we see examples where informants revealed parting ways with certain brands, self-banning items such as television, or moving to a more inconspicuous lifestyle as well as having a new outlook towards the purpose of life altogether. Specifically, marketers would do well to understand shariah (Islamic) compliance with regards to the marketplace.

Our aim here has been to understand how such behavior is colored by an institutional religious ideology. We unveil that holding onto the tenets of a religious movement helps consumers determine morality in the marketplace. Ultimately, we contribute by proffering that institutionalized, religious anti-consumption sustains participants in modernity given socio-cultural conflicts.

### **Abstract**

The main objective of the current is to investigate the underlying mechanism through which various important factor influence on the attitude toward luxury counterfeit purchase intention in the social commerce context. Based on flow theory, this study examines the mediating role of CIU in the relationship between influencing factors (such as materialism, novelty-seeking behavior, and hedonic benefits) and consumers' attitudes toward luxury counterfeit products. Additionally, the moderating role of product conspicuousness and positive online reviews also examined the direct effects. Data were collected from active online users of Taobao.com. Results show that materialism and novelty-seeking behavior are significantly related to CIU and subsequently influence the attitude toward luxury counterfeit goods. Furthermore, product conspicuousness and positive online reviews have moderated the direct effect of the conceptual framework. Therefore, the current study contributes to the extant literature by addressing the mediating role of CIU and moderating (product conspicuousness and positive online reviews) factors that played a significant role in promoting counterfeit purchase intention, comparing the direct effect to promote the counterfeit purchase intention. Theoretical and practical implications are discussed in detail.

**Keywords:** Materialism; Novelty seeking; Hedonic benefits; Counterfeit luxury products; Attitude toward luxury counterfeit; Product conspicuousness; Positive online reviews

## **Mask colors and trustworthiness**

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**Keywords:** Mask colors, Trust transfer theory, Evaluative conditioning theory, Trustworthiness

**Description:** The pandemic that started in 2019 has made masks an important part of our lives. As a mask covers most of a person's face, people may judge a person based on the mask. In this case, does the color of the mask influence our perception? Drawing on the trust transfer theory and evaluative conditioning theory, we developed four experimental studies; the results consistently suggest that the color of a mask influences a person's perceived trustworthiness.

## **EXTENDED ABSTRACT**

### **Research Question**

Although masks have been used for a long time, the influence of the color of masks remains unknown. One possible assumption of mask color effects is that color itself can affect people's feelings. Previous studies have already found that colors affect individuals' emotions and behavior (Valdez and Mehrabian 1994). For example, longer wavelength colors (e.g., red) are perceived as arousing, while shorter wavelength colors (e.g., blue) are perceived as relaxing (Nakshian 1964).

An alternative explanation is that particular colors may trigger a process of feeling transfers. People often observe healthcare professionals wearing a mask in blue, white, and green. Therefore, they tend to associate trustworthiness with masks in these colors. Therefore, when people see somebody wearing a mask in regular colors, they may transfer the positive feeling from healthcare professionals to that person. As a consequence, they may perceive people whose masks are in regular colors as being more trustworthy. Hence, we examined how mask colors influence a person's trustworthiness and the rationale behind such effects.

### **Method and Data**

We conducted four empirical studies. Respondents of study 1, study 2, and study 3 were recruited via Amazon's Mechanical Turk. Study 1 (N = 441) employed a 2 (mask color: regular vs. irregular) by 2 (model gender: male vs. female) by 2 (trust in the

healthcare professional: high vs. low) between-subject experimental design to explore the prerequisite of trust in healthcare professionals. Study 2 (N = 323) employed a 2 (Association: doctors-blue mask vs. doctors-black mask) vs. 2 (Mask color: regular vs. irregular) between-subject experimental design to explore the prerequisite of associating particular colors with healthcare professionals. In Study 3 (N =405), we designed a 2 (Mask color: regular vs. irregular) by 2 (Similarity of service type: bank vs. boutique) between-subject experimental design to identify the moderating effect of service similarity.

To test our hypotheses in a real-world setting, we conducted a field experiment in a city in South China. To manipulate the mask color, investigators were wearing a blue (regular) or black (irregular) mask when passing the questionnaire. The participant was told that this survey was to measure his/her attitude toward a fashion brand. At the end of the questionnaire, they were asked to provide their mobile phone number. We expect if the participant trusts the investigator, they are more willing to provide their mobile phone number.

### **Summary of Findings**

This study reveals that the color of masks has an effect on people's perception of trustworthiness based on the evaluative conditioning theory and trust transfer theory. Wearing masks in regular colors can increase one's perceived trustworthiness. However, this main effect is moderated by the degree of trust in healthcare professionals and consumers' association of particular mask colors and healthcare professionals. The

mask color effect disappears when one shows a lower trust in healthcare professionals and when participants were primed that healthcare professionals are associated with irregular colors. Additionally, this effect has been confirmed across different service scenarios (i.e., banks and boutiques).

### **Key Contributions**

This study makes several contributions to the literature. First, this research uncovers the underlying mechanism of how the mask colors affect one's perceived trustworthiness. We proposed and confirmed a detailed model of the trust flow based on the evaluative conditioning theory and trust transfer theory (Martin and Levey 1978; Förderer and Unkelbach 2011). If people trust a certain group of people, they tend to associate trust with particular symbols possessed by the group. Individuals who display those symbols are also perceived as more trustworthy. We further confirmed the three prerequisites of the trust flow. Only when these three prerequisites are met can the trust flow proceed from the original group to the trustee.

Second, the current research explores whether the trust transfer process is easier when the trustee (service providers) possesses similar features with a trustworthy group (healthcare professionals). However, the similarity does not enhance the trust transfer process. This implies the proposed trust flow model is valid across two service types, which increases the generalizability of the trust transfer theory. Previously, the trust transfer theory was mainly applied to the e-commerce context (Stewart 2003; Stewart 2006; Lu et al. 2011).

## **FOLLOW THE MEMES: EXPLORING COVID-19 UNCERTAINTIES IN USER GENERATED CONTENT IN INDIA**

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**Keywords:** Memes, COVID-19, User Generated Content (UGC), Infodemic, Technocultural Consumption

**Description:** This study explores consumers' interpretation of information (or lack thereof) through the creation and consumption of user generated content in the form of Internet image memes in the ongoing Covid-19 pandemic in India and adds to the call for research on understanding various forms of technocultural liquid consumption by situating memes as digital cultural artifacts in everyday lived experiences of the modern consumer.

### **EXTENDED ABSTRACT**

#### **Research Question -**

As the world grapples with the Covid-19 crisis, various stakeholders in the global economy contend with the surge of information in the public domain. Often, social media platforms are utilized to share information with the public along with the mainstream media coverage. In India, the world's largest democracy with the youngest population, prominent Politicians are receiving significant press coverage for proposing rather unique solutions to keep the virus at bay. The popular memes amongst them such as the 'Go Corona Go' family of memes were further amplified in the mainstream media contributing to "misinformation" for some and "entertainment" for others. In general, memes conveyed humorous interpretations of the information on the pandemic in the public domain. Research on humor in everyday lived experiences of consumers is scarce (Warren, Barsky and McGraw 2018). Humor is rooted in culture. To understand cultural context, one must be from the culture or have a thorough understanding through immersive experience (Tonglin, Li and Hou 2019). This study adds to the recent call for research on various forms of technocultural liquid consumption (Bardhi and Eckhardt 2017, Kozinets 2020) and the use of humor (Warren, Barsky and McGraw 2018) by exploring how memes depict cultural context during the Covid-19 pandemic disruptions to consumers' everyday lives. Specifically, the study contributes to the interplay of culture and humor in technocultural consumption in everyday lived experiences. The research questions posited are how do memes depict consumer meaning-making during times of uncertainties such as the Covid-19 pandemic? How important is cultural understanding for comprehending consumer perspectives of humor in UGC?



### **Summary of Findings-**

Emergent findings indicate that memes demonstrate humorous depictions of everyday life where culture and the socio-economic aspects of the Covid-19 pandemic intersect. One theme revolves around macro-level issues such as messaging from political figures and perceptions of the world of such messaging. Here the intent is not merely to attack the individual politician but also the dominant paradigm where the political message is amplified by mass media despite the misinformation inherent in the same. Another emergent theme revolves around memetic discourse of everyday lived experiences affected by the lockdown due to Covid-19. With various depictions of working from home, travel ban, and challenges of online education, these memes captured how and in what ways life changed due to Covid-19.

Memes are shared to convey perceptions of current events. During a socio-cultural crisis like the pandemic, memes reveal consumer sentiments that are complex, often intersecting on consumption and cultural dimensions. However, with tendencies of certain UGC gaining virality, there is a thin line between “infotainment” and “infodemics.” India in particular continues to struggle with the spread of online misinformation. Increasingly, digital content is shared between individuals and closed groups on social media platforms. Memes offer a glimpse into how the Indian digital diaspora are utilizing humor to interpret the various types of information during the ongoing Covid-19 pandemic. With memes trending in real time with current events, UGC as digital cultural artifacts can provide useful insights into how consumers are interpreting information pertaining to relevant events as these shape consumer economies at the intersection of global and local cultures.

### **Statement of Key Contributions-**

This study brings attention to two relevant aspects of consumer behavior. It addresses the recent call to understand the ever-evolving facets of technocultural consumption (Kozinets 2020). Within this purview, emergent findings also offer insights into the notion of liquid consumption which posits that certain types of consumer behavior are temporary and may arise due to uncertain situations experienced by consumers (Bardhi and Eckhardt 2017). We posit that internet memes demonstrative of everyday lived experiences of the ongoing Covid-19 pandemic in India constitute a technocultural liquid consumption phenomenon worthy of study. Memes are digital cultural artifacts that depict consumer sentiments on topics of popular interest. From a business standpoint and a marketing perspective, commercial use of memes is on the rise in India (Kar 2020) as consumers increasingly seek “infotainment.” This study is of value to both academe and practitioners as it contributes to understanding one aspect of the UGC creation and consumption, that is how significant the cultural understanding is in deciphering humor, especially as both culture and humor are dynamic. India is promising as a market for digital content with one of the world’s youngest demographic and half a billion active mobile users (Mitter 2020). India’s consumers are taking a digital leap (McKinsey Digital 2019) and therefore it is important for marketers to understand this technocultural consumption.



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## Panic buying in the COVID-19 pandemic: A multi-country examination

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### ABSTRACT

The global crisis of COVID-19 pandemic has ravaged the world economy and healthcare, igniting much fear, panic, and uncertainty among billions of people. As lockdowns being implemented in many places, panic buying has emerged as a reliable feature of the Coronavirus outbreak. Therefore, it is of urgent needs to examine consumers' panic buying behaviors during COVID-19 to gain a better understanding of the phenomenon and to provide managerial insights for policy-makers and marketers alike. In this study, under the theoretical guidelines of the Stimuli-Organism-Response model and the Competitive Arousal model, we investigate how in the panic situation created by the pandemic, external stimuli such as Limited Quantity Scarcity (LQS) and Limited Time Scarcity (LTS) affect the emotional arousal among people, which in turn influences consumers' impulsive and obsessive buying behaviors. This study is conducted in a multi-country setting including the U.S., China, India, and Pakistan. Online surveys were conducted during the peak time of pandemic. Our findings show that LQS and LTS significantly increase perceived arousal in consumers, which further leads to more impulsive and obsessive buying. In addition, our results also reveal that excessive social media use intensifies the relationship between scarcity messages and perceived arousal whereas the urge to buy impulsively moderates the relationship between perceived arousal and behavioral outcomes in all selected countries except for India. Theoretical and managerial implications are discussed in details.

### 1. Introduction

The global crisis of COVID-19 pandemic has ravaged the world economy and healthcare, igniting much fear, panic, and uncertainty among billions of people. As lockdowns being implemented in many places, panic buying has emerged as a reliable feature of the Coronavirus outbreak. Store shelves have been stripped bare everywhere. Among others, toiletries, frozen food, rice, beans, eggs and bread are some essential items often sold out as shoppers make impulsive and obsessive purchases to stock-up. The highly contagious and possibly deadly COVID-19 violates a sense of control in people. Panic buying has become a global phenomenon reflecting that loss of control among consumers in the era of Coronavirus lockdown.

The global crisis continues today and its impact on the economy, businesses and consumers are profound and far-reaching. Therefore, it is of urgent needs to examine consumers' panic buying behaviors dur-

ing the outbreak to gain a better understanding of the phenomenon and to provide insights for policy-makers and marketers alike. As it is such a current topic, to our best knowledge, there is no existing academic research conducted thus far to investigate panic buying behaviors in the COVID-19 pandemic, especially in a multi-country context. This crisis is no doubt a global one. A study examining the situations in multiple countries will offer us much needed observations and insights on how to manage crises on a truly global scale. Therefore, in this study, under the theoretical guidelines of the Stimuli-Organism-Response model (SOR) and the Competitive Arousal model (Donovan and Rossiter, 1982; Islam et al., 2018; Liu et al., 2016; Mehrabian and Russell, 1977; Reza et al., 2020), we investigate how in the panic situation created by the pandemic, external stimuli such as Limited Quantity Scarcity (LQS) and Limited Time Scarcity (LTS) affect the emotional arousal among people, which in turn leads to consumers' impulsive and

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obsessive buying. The countries investigated in this study include the U.S., India, China, and Pakistan.

Moreover, today's world is a digitally connected world. Social media have become a powerful force influencing every aspect of people's life (Diba et al., 2019; Sheikh et al., 2017, 2019; Zafar et al., 2019). Dealing with the COVID-19 pandemic is no exception. In fact, as billions of people following governments' stay-at-home orders, the dependency on social media has increased drastically around the world. People rely on social media to seek and share information about the pandemic and to maintain relationships with families and friends during social distancing. Of course, the news about people panic buying and photos of empty shelves and long lines in front of stores have also flooded social media platforms such as Facebook, Twitter, YouTube, and WeChat, among others. Those scarcity messages may well heighten the urgency consumers feel to buy impulsively and obsessively. Thus, this study also looks into the role of social media play on consumers' panic buying behaviors during this pandemic.

The current research makes several significant contributions to the literature: First, this study is conducted amid the COVID-19 outbreak. At the time when data were collected, billions of people were under unprecedented home quarantine. In that sense, this study is operationalized in a natural experiment setting and provides a timely investigation on how consumers behave in the crisis in real-time. Secondly, this study proposes and tests a model to illustrate the underlying mechanism of impulsive and obsessive purchasing behaviors during the COVID-19 pandemic. By integrating the SOR model and competitive arousal model, the proposed model delineates that limited quantity scarcity and limited time scarcity positively affect the level of perceived arousal, which in turn influences impulsive and obsessive buying in the pandemic. Thirdly, to our best knowledge, this research is the first conducted on panic buying during COVID-19 in a multi-country setting. Even though the focus of the study is not on cross-cultural comparisons, the multi-country data and analyses will offer us glimpses into whether and how the cultural factor influences consumer behaviors in this unusual time and particular context. Specifically, when this research is conducted, different countries are in the different stages of the pandemic. China, where the pandemic first started, seems to have the disease under control, whereas the U.S. is approaching its peak of the outbreak. This unique situation provides valuable and interesting insights on how consumers behave differently in different stages of a crisis and engage in different cycles of panic buying, which may offer beneficial implications for businesses and policy-makers to better respond to the crisis on a global scale. Finally, this research investigates the first, to our best knowledge, the underlying mechanism of compulsive buying (i.e., impulsive and obsessive buying) in COVID-19 context.

The rest of the paper is organized as following: First, we review relevant literature on panic buying in terms of impulsive buying and obsessive buying as well as the SOR model and competitive arousal model; Second, the research model is developed and the hypotheses are proposed; third, we specify methods used to collect the data and test the hypotheses; fourth, we present significant research results and discuss implications of those findings.

## 2. Literature review

### 2.1. Panic buying in the coronavirus pandemic

According to the Oxford (2020), panic buying is "the action of buying large quantities of a particular product or commodity due to sudden fears of a forthcoming shortage or price increase". Panic buying is a common consumer reaction to disasters and often occurs when consumers in anticipation of, or after, a disaster or perceived disaster. Each year, in many places around the world, before seasonal natural disasters hit, law enforcement along with news agencies warns people in the affected areas to refrain from panic buying. As a common consumer be-

havior phenomenon, panic buying has received limited attention from scholars and research findings on the subject are largely inconclusive. Some researchers have argued that consumers are to be blamed for buying essential items too early, which causes increased prices, goods out of stock, and long waiting lines at the stores (Akhtar et al., 2020; Tsao et al., 2019). However, other scholars have found that customers are hardly panic prior to natural disasters or during its occurrence (Nancy, 1988; Quarantelli, 1999).

Moreover, when panic does occur, it only influences a small group of people and disappears in a short period of time (Perry and Lindell, 2003). Even though evidences do show that panic buying causes the supply disruption of products of certain categories, business professionals as well as scholars have pointed out that panic buying is not caused by supply deficit per se, but by consumers' heightened anxiety and fear (Shou et al., 2013; Tsao et al., 2019). At its root, this anxiety and fear can be traced to perceived scarcity of time and quantity. It is also a self-fulfilling process: the more customers buy impulsively and obsessively, the more anxiety people will experience the scarcity, and the more quickly products will be sold out. Past research proposes that panic buyer is mostly caused (natural disaster, pandemic, and long strikes) by the disruption of the supply of goods and services (Badgaiyan and Verma, 2015; Wu et al., 2020). These stimuli created panic or fear because of the scarcity of the time and quantity among the citizens, which resulted in the impulsive and obsessive buying.

The COVID-19 pandemic is definitely a frightening unusual time for people around the world. Fig. 1 shows the number of people in lockdowns in COVID-19 in different countries. With months of quarantine, panic buying has become not only a necessary act but also a psychological coping mechanism for many. Specifically, under the lockdowns: grocery stores shorten store hours; experts advise people not to go shopping unless it's absolutely necessary; social distancing needs to be maintained in the stores. All these add up to a high level of anxiety experienced by consumers. The elevated anxiety is likely to stimulate consumers buying products they don't need or buying much more than they would use. Distrust of governments' handling of the crisis and fear of store shutdown completely also triggered some people to buy obsessively (Fig. 2).

In this study, we conceptualized consumers' panic buying behaviours in two categories: impulsive buying and obsessive buying. Extant literature found that Impulsive buying behavior is a spontaneous purchase outlines as an instant, inescapable, hedonically complex attitude with inadequate of deliberation, and selfless. Impulsive buying has been defined as "a consumer experiences a sudden, often powerful and persistent urge to buy something immediately" (Rook, 1987, p. 191). Consumers' impulsive buying behavior has long been identified as a common experience around the world (Lim et al., 2015). Previous studies showed that up to 80% of all purchases made in the U.S. were in the category of impulsive buying (Atulkar and Kesari, 2018; Badgaiyan and Verma, 2014; Bellini et al., 2017; Lim et al., 2017). In addition, most purchases of new brands are the results of impulsive purchases rather than pre-planned buying behaviors (Farah and Ramadan, 2020; Zafar et al., 2019). Impulsive buying has been characterized as unplanned, sudden, hedonically complex, and irresistible (Amos et al., 2014; Iyer et al., 2020). Fiore and Kim (2007) conducted research and through the empirical examination and first to describe the impulsive buying behavior as a tendency to purchase instant, unintentionally, abrupt, and kinetically. Similarly, Dittmar et al. (2014) explained the impulsiveness is a combination of the positive or negative activities which influence the consumer wellbeing.

Moreover, the extant literature has been studied the range of various disorders and it might be the chance that obsessive-compulsive disorder part of it (Foa et al., 1995). Scholars explained the various

Fig. 1

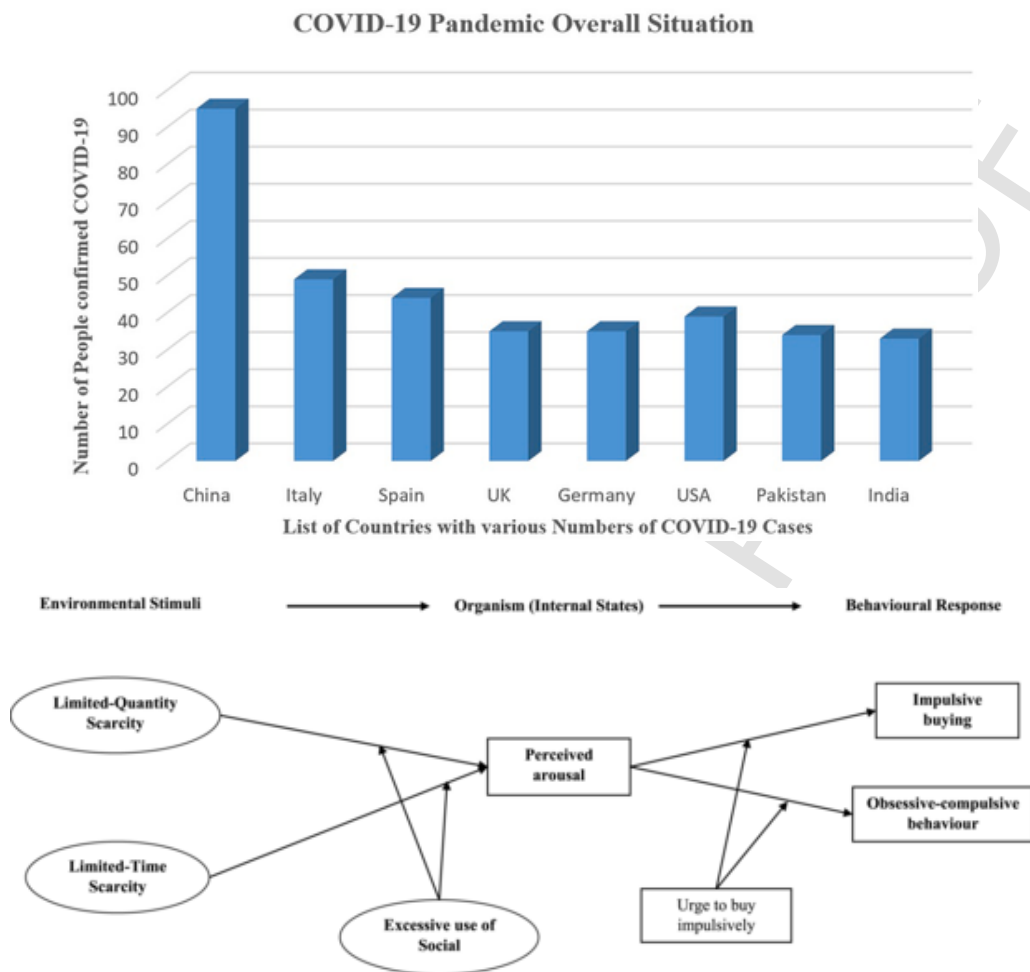


Fig. 2. Research model based on the SOR model.

compulsive disorders such as obsessive buying, eating disorder, and impulsive personality (Frost et al., 2002). Harnish et al. (2019) found that obsessive-compulsive buying is one of the major factors of the disorder spectrum which to the low life satisfaction and high credit purchase. For instance, Ridgway et al. (2008) defined the obsessive buying as the willingness to purchase of apparel brands or other products that you may require. Additionally, extant literature found that obsessive buying respond to the frequent and consistent thoughts, intrusive, emotions and images that stimulate them for obsessive buying with central agenda to reduce the anxiety and pain (Association, 2000).

During impulsive buying, the quickness of the purchasing decision process excludes the thinking process and proper research and evaluation on the product (Kacen and Lee, 2002). Iyer et al. (2020) conducted a comprehensive meta-analytic review on impulsive buying and found that consumers spend \$5400 approximately per year on impulsively buying products such as apparel, household, and luxuries. Their research also identifies individual traits, motives and drives, and marketing drivers, as important influencing factors on impulsive buying. The researchers concluded that consumer drives like utilitarian and hedonic are implicit drivers of the impulsive buying. Another consumer behavioral outcome we consider in this study is obsessive buying. According to Japutra et al. (2019), impulse-control-disorder shows unavoidable impulses to destructive behaviors, whereas obsessive-compulsive disorder shows concern or anxiety. Ridgway et al. (2008) explained the obsessive buying behavior is a spontaneous tendency that is

accompanied by preoccupation in purchasing and repeated purchase to reduce the panic or stress.

Currently, billions of people around the world are under lockdowns. As the demands for grocery as well as hygiene items have increased drastically in a short period of time, manufacturers are facing tremendous pressure to provide sufficient supply through limited distribution channels. LTS and LQS are the two realities consumers are facing everywhere in this crisis. Moreover, the heavy bombardment of social news regarding the limited availability of grocery products in the supermarket created heightened and widespread panic. This study is designed to examine how external stimuli (i.e., scarcity messages; LQS and LTS) affect the impulsive and obsessive buying in the Coronavirus pandemic better to understand the scarcity effect in the real crises situation.

## 2.2. Literature review and theoretical model

### 2.2.1. The SOR model

The SOR model has been extensively applied and supported in consumer behavior research (Islam et al., 2018; Liu et al., 2016). According to Mehrabian and Russell (1977), the SOR model explains the “various aspects of the environment act as stimuli (S) that together affect people's internal states and act as organisms (O), which in turn drive their behavioral responses (R).” Much literature has provided empirical support for the model. Donovan and Rossiter (1982), for example, applied the SOR model in the retail industry, which they treated

external atmospheric factors as stimuli, two main emotional states as an organism, and the individual buying behavior as the response.

The SOR model is appropriate to study the compulsive buying behaviors in the Coronavirus pandemic as the model has theoretically and empirically validated that external stimuli factors influence the cognitive and emotional states of an individual, which in turn affects consumer behaviors (Islam et al., 2018; Liu et al., 2016). Using the SOR model in this research simply clarifies the relationships among external stimuli, organism state, and the specific outcomes. In addition, the SOR model has been proved to be a robust theoretical model guiding the studies to investigate impulsive buying in the online setting. With the exponential increase usage of social media around the world, personal direct messages and excessive social dependency of online users are no doubt important factors contributing to the perceived arousal and ultimately panic buying. Below we will discuss in details of the application of the SOR model to our study.

### 2.2.2. Stimuli (S)

Mehrabian and Russell (1977) defined external stimuli as “the environment as encountered by the individual,” and examined the effects of scarcity of time and quantity on perceived arousal in the online environment. A number of studies based on SOR model have investigated various external stimuli influencing purchasing behaviors. For example, Fiore and Kim (2007) apply SOR model in the context of brick-and-mortar stores and identified stimuli such as social cues, design, and ambient. Past literature has also showed various marketing strategies using external stimuli through SNSs influencing online users buying behavior. Likewise, Changa et al. (2011) conducted research on retail environmental factors and found that retail factors positively associated with impulsive buying.

Previous studies have applied the scarcity model based on the limited quantity and high time pressure to analyze the buying situation (Ku et al., 2012; Suri et al., 2007). Wu et al. (2020) conducted research on the Chinese online users who frequently use Taobao retail website and found the limited-quantity and time are the key predictors for the perceived arousal, which subsequently resulted in the impulsive buying behavior. This study found that scarcity of quantity and time is directly associated with psychological state known perceived arousal. Similarly, Bae and Lee (2005) found that scarcity messages in an Internet shopping mall influence on the individual buying behavior. In the era of COVID-19, the drastically increased demand and purchase of groceries and other essential items have become a hot-button issue. The scarcity messages flooded in the media, which may function as powerful external stimuli for consumers.

### 2.2.3. Organism (O)

Scholars treated as an organism (O) as “individual internal states” that based on the cognitive reaction from the external environmental stimuli (Islam et al., 2017; Liu et al., 2016; Luqman et al., 2020). The SOR model proposes that the influence of external stimuli on user behavior is mediated by the internal states (Organism). Past literature has found that the organism has significant importance to explain the overall relationship between the external environmental factors and individual behavior's (Luqman et al., 2017). For instance, Luqman et al. (2020) conducted a study on the Chinese SNSs users and found that excessive usage of the SNSs caused a strain (e.g., organism), which influence the SNSs discontinuous intention. Moreover, Liu et al. (2016) examined the relationship between technological factors and purchase intension via the mediated effect of the flow of experience, social presence, and telepresence. The researchers found that individual cognitive states mediate the direct effect from external stimuli to behavioral responses (Akhtar et al., 2020). Wu et al. (2020) and studied the relationships among external factors, perceived arousal and consumer buying decisions in the online context and found that per-

ceived arousal is influenced by cognitive feelings, motivations, and online information processing, which further affects behavioral outcomes. Furthermore, extant literature found that perceived arousal is dependent on the degree to which individuals are excited, alerted, and activated in a particular situation (Mehrabian and Russell, 1977; Wu et al., 2020).

### 2.2.4. Response (R)

According to Mehrabian and Russell (1977), the response of the SOR model is defined as “the behavioral response reflects the behavior toward the stimulus engendered by the intervening organism response.” Chen and Yao (2018) further explained that the response in the SOR model is the final consequences of the individual decision-making process, which may be continuance purchase intention or avoiding behavior. Consumers' behavioral outcomes can be negative or positive (Lis and Fischer, 2020). Repeat purchases, intention to stay, impulsive buying and compulsive buyers are some positive behavioral outcomes whereas discontinuing usage, disliking brands, and brands switching are examples of negative consequences. Previous studies have supported the notion that behavioral response is influenced by the emotional experience stimulated by various external factors. In the online context, for example, Internet users are influenced by various technological and marketing factors. These external stimuli increase an individual's perceived arousal level, which in turn encourages his or her behavioral intention (Wu et al., 2020). To study panic buying in COVID-19, this study uses impulsive and obsessive buying behaviors proposed in the competitive arousal model as behavioral outcomes.

## 2.3. The competitive arousal model

Mehrabian and Russell (1977) mentioned that competitive arousal is a neurophysiological basis underlying individual activities that leads individuals moving from sleep to enthusiasm. The competitive arousal has been found to be one of the most suitable theories to investigate the behavioral outcomes (Wu et al., 2020). Bagozzi et al. (1999), for example, found that perceived arousal provides the basis of the excitements and psychological feelings for decision-making and behavioral intention. Many researches have studied the emotional component or arousal in the auction context and found that arousal has a significant influence on bidders' actions (Islam et al., 2021; Malhotra, 2010). Wu et al. (2020) conducted research on the scarcity of time and quantity and found that both are the primary predictors of the perceived arousal. Furthermore, Ku et al. (2012) found that various paths prevailing in the competitive arousal model, including time pressure and perceived competition; Time pressure is positively associated with an individual's arousal Carnevale and Lawler (1986). In the unusual situation of COVID-19, due to the limited supply of certain products in the stores, the perceived competition among shoppers is high. The shortened store hours and limited shopping time also increase the urgency and panic consumers experiencing. Therefore, the present research integrates the competitive arousal to the SOR model to examine the underlying mechanism of LQS and LTS on consumer behavioral outcomes in COVID-19.

## 2.4. Hypotheses development

In the consumer behavior research, scarcity has been conceptualized as a strategic restriction of time, demand, discounts, and other similar buying conditions of products. Scarcity is often communicated to consumers with well-crafted marketing campaigns, delivering the message that there is a limited chance to purchase a particular product (Jang et al., 2015). Firms routinely use the scarcity effects in their marketing strategies by disclosing the forthcoming out-of-stock news of particular products (Wu et al., 2020). Scarcity effects are best suited

for marketing limited edition products. LQS suggests a limited number of certain products are available to consumers (Lee et al., 2015). Based on the rule of "first-come, first-served", LQS is likely to generate panic or competition among consumers. As such, LQS can be an effective external stimulus that generates the rivalry competition and pushes for the purchases of a particular product. In addition, marketers have also used the scarcity approach effectively to promote and sell their existing inventory with limited quantity (Ku et al., 2012). Studies on online auctions confirm that bidders are more inclined to bid when time pressure and competition coexist. For instance, Adam et al. (2015) found in online auctions, bidders experienced an increased level of arousal as a result of quantity and time pressure when challenged by their competitors. Wu et al. (2020) also revealed that in the high LQS condition, an individual's perceived competition with others increases greatly, which results in a high level of perceived arousal. These researches showed that scarcity affects the emotional arousal among consumers. In COVID-19, people are frantically searching for groceries and hygiene products with limited quantity, which constitutes a typical LQS condition. The perceived, as well as actual competition among customers, also heightened the emotional arousal. Thus, we hypothesize:

H1 In COVID-19, the higher level of limited-quantity scarcity message, the higher level of perceived arousal among people. Time pressure is another important factor influencing consumers' decision-making. Customers consider time pressure as the total available time for buying a particular product. The closer to the time limit, the higher the time pressure is. Past literature has found that time pressure/scarcity in the purchasing process increases consumers' emotional arousal, especially in the online context. Lin et al. (2015) found that in the online context, time pressure and discount strategy increase the tendency of immediate decision-making among customers. In addition, Aggarwal and Vaidyanathan (2003) argued that in the LTS condition, having less time increases perceived pressure for people to make quick buying decisions. During the Coronavirus pandemic, many countries have been in lockdowns and issued stay at home orders. The essential groceries store and drugs stores reduced their opening hours. These policies create time pressure on shoppers and may have a significant impact on the customers' arousal. Thus, we hypothesize:

H2 In COVID-19, the higher level of limited time scarcity message, the higher level of perceived arousal among people.

#### 2.4.1. Social media use

The exponential growth of social media and high penetration of Smartphones have allowed billions of people to share and post anything and everything on SNSs (i.e., Facebook, Twitter, Wechat, Instagram, etc.) (Islam et al., 2021; Parsons et al., 2014; Prentice et al., 2020). Much business research has showed that social media usage has a significant influence on consumers' decision-making process as well as motivates changes in consumer preferences (Barger et al., 2016). Under the COVID-19 lockdowns social media provide opportunities for online users to obtain and share information instantly as well as build and maintain relationships. There is no wonder that social media use has increased dramatically during this unusual circumstance. According to a recent global survey conducted in the big economies including China, USA, Spain, and Italy, the spread of COVID-19 has caused the increase of media consumption globally with 40 percent of online users use social media excessively (Watson, 2020). Millions of posts regarding the Coronavirus appear on social media every day. Pictures and videos showing empty shelves and others' impulsive and obsessive buying intensify the panic and fear among users. Therefore, during the pandemic, excessive use of social media may play an amplifier role by heightening the influence of stimuli on perceived arousal. In this study, we hypothesize that excessive social media use moderates

the relationship between scarcity effects and perceived arousal:

H3 The positive relationship between limited quantity scarcity and perceived arousal is moderated by excessive social media use during COVID-19, in which the higher level of excessive social media use, the stronger the relationship.

H4 The positive relationship between limited time scarcity and perceived arousal is moderated by excessive social media use during COVID-19, in which the higher level of excessive social media use, the stronger the relationship.

#### 2.4.2. Perceived arousal and buying behaviors

Both the SOR model and the competitive arousal model propose that different marketing factors or external stimuli in the consumption environment increase the probability of customers' engagement in impulsive buying behavior. In the auction literature, past research suggests that perceived arousal ultimately leads to buying decisions (Malhotra, 2010; Sneath et al., 2009). For example, Wu et al. (2020) found that scarcity in both time and quantity is positively related to the perceived arousal among Chinese students in the online context, which in turn influences their impulsive buying. Moreover, Adam et al. (2015) found that auction fever is a key determinant of consumers' decision making. In COVID-19, consumers' level of arousal surges as the panic created by scarcity messages, which in turn increase the possibility for more impulsive and obsessive buying. Therefore, we hypothesize:

H5 During the COVID-19, perceived arousal has a positive impact on impulse buying behavior.

H6 During the COVID-19, perceived arousal has a positive impact on obsessive-compulsive buying.

#### 2.4.3. The urge to buy impulsively

Past research has identified that urge to buy impulsively as an important personality trait significantly influencing actual impulsive buying behaviors (Cameron and Shah, 2015; Dholakia, 2000; Ge et al., 2009). Peck and Childers (2006) defined the urge to buy impulsively or impulsiveness as "consumer's tendency to buy spontaneously, unreflectively, immediately and kinetically." Beatty and Ferrell (1998) argued that the urge to buy impulsively is an individual's implicit inclination, which encourages the individual tendency to react instantly without proper thinking and careful planning. Huang (2016) found that urge to buy impulsively is a key determinant of impulsive buying behavior. Wu et al. (2020) also illustrated the association between the urge to buy impulsively and impulsive buying as a chain effect. Along with this logic, the present research differentiates the urge to buy impulsively and the actual buying behavior and conceptualizes that the former as an influencing factor of the later.

Previous studies have found that the urge to buy impulsively has a strong positive effect on customer's impulsive buying behavior (Parboteeah et al., 2009; Pizzi and Scarpi, 2013). Several studies have examined the urge to buy impulsively as a moderator between the relationship of perceived arousal and impulsive buying, behavior (Badgaiyan and Verma, 2014, 2015; Gupta and Gentry, 2019; Wu et al., 2020). For example, Zafar et al. (2019) conducted research on Pakistan online food shoppers and found that the urge to buy impulsively trait might increase the influence of the external environmental stimuli and provokes shoppers to engage more impulsive buying. Similarly, Xiang et al. (2016) found that urge to buy impulsively is as a proxy of actual behavior. Consumers positive intention might increase the influence of perceived arousal and lead to more impulsive and obsessive buying. Thus, we hypothesize:

H7 The positive relationship between perceived arousal and impulsive buying behavior is moderated by the urge to buy impulsively, in

which the higher the urge to buy impulsively, the stronger the relationship.

H8 The positive relationship between perceived arousal and obsessive buying behavior is moderated by the urge to buy impulsively, in which the higher the urge to buy impulsively, the stronger the relationship.

### 3. Methodology

#### 3.1. Procedure and sampling

The COVID-19 pandemic provides a natural field experiment setting for this study. Our data were collected during the peak of the pandemic when government lockdowns were enforced in over 180 countries affecting more than 7 billion people around the world. People were facing never before uncertainty and engaging in panic buying of various products in fear of shortage. We have chosen four countries were chosen for this study including the U.S., India, China, and Pakistan. The selection was mainly based on two criteria: the severity of COVID-19 and the level of economic development. More specifically, China is where the pandemic started and have suffered considerable losses in the initial stage of COVID-19. The U.S. is hardest-hit country with more than 1,300, 000 confirmed cases, and a death toll close to 80,000. India and Pakistan have acted early and forcefully and seem to have the pandemic under control. All these countries actually affected by the COVID-19 and the panic buying concept got became a hot topic. In addition, the U.S. is a developed country with well-established retail and supply chain systems. China has experienced rapid economic growth and is the second-largest economy of the world. India and Pakistan, on the other hand, are developing countries with limited resources and supplies. Moreover, all four countries customers buying behavior influenced by numbers of factors such as per capita income, gross domestic product, government performance, and responsiveness towards the local disaster. For instance, Zhang et al. (2010) conducted research in the Chinese Context and found that Chinese institutes are highly responsive towards the disaster and helping to the affected community. As a result, people having high trust on their respective Governments and behave sensibly. On the other hand, where corruption rate is high and people don't trust their institutes, which resulted in abnormal behavior like panic buying. Thus, investigating consumers' panic-buying behaviors in these four countries will provide a representative and comprehensive picture of the phenomenon around the world.

To test the proposed conceptual model and hypotheses, the online survey method was employed. The questionnaire was first developed in English and then translated into Chinese. Back-translations were conducted by bilingual third parties to ensure translation accuracy. Online survey method is appropriate for this study because during the lockdowns, online is often the only way to reach consumers. In addition, past marketing literature has proved that surveys are a suitable method to study the customers' behavior (Akhtar et al., 2020; Hameed et al., 2020; Liu et al., 2016). Data were collected from the U.S., China, India, and Pakistan during the peak time of COVID-19 when people are experiencing a high level of panic and anxiety. As such, this study satisfies the conditions of actual experimental research design since participants are in an actual panic state due the pandemic.

The data were collected during the months of March and April in 2020. A total of 160, 345, 352, and 271 questionnaires were collected from the U.S., China, India and Pakistan respectively. Some questionnaires were deleted due to the poor loadings. Eventually, a total of 151, 335, 334, and 261 questionnaires from the U.S., China, India and Pakistan respectively were used for final analysis. The discrepancy in sample sizes is mainly due to the different stages/levels of severity of different countries when the data were collected. The U.S., for example, was in the peak time of the pandemic, which posted more challenges

for collecting data. Detailed demographic information for each sample is provided in Table 1.

#### 3.2. Measurement

All the scales used in this research were adapted from the established measures to the context of COVID-19. The questionnaire measures key variables in the study including LTS. It is measured by using three items from Wu et al. (2012). LQS is measured by using the four items of Chang et al. (2014). In addition, perceived arousal was measured by using the 4 items from the work (Mehrabian and Russell, 1974). Urge to buy impulsively was measured by using the 4 items from Verhagen and van Dolen (2011). Similarly, impulsive buying behavior was measured by using the 4 items from Ridgway et al. (2008). Obsessive buying behavior was measured by using the 4 items from Ridgway et al. (2008). Additionally, excessive social media was measured by 6 items from Ali-Hassan et al. (2015). Five-point Likert scales were used in all measures ranging from strongly agree (5) to strongly disagree (1). Demographic data, such as gender, age, income, and education were also collected to describe the samples. The detailed scale items and sources are provided in Appendix A. We used SPSS 25 for descriptive statistics and correlation. Structural equation modelling (SEM) was performed using AMOS 24, which is recognized as a robust statistical tool and is commonly used for doing CFA and SEM. The data screening stage incorporated missing value analysis, multivariate outliers, normality, multicollinearity, descriptive statistics, and correlations.

### 4. Results

#### 4.1. Measurement model

Confirmatory factor analysis (CFA) was used to examine the measurement model in this study. Particularly, we investigated the discrim-

**Table 1**  
Demographics.

Variables	USA		China		India		Pakistan	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	91	60.3	214	63.9	142	42	156	59.3
Female	60	39.7	121	36.1	93	58	107	40.7
<b>Age</b>								
Between 21 and 30	78	51.7	175	52.2	160	68	124	47.1
Between 31 and 40	64	42.4	138	41.2	75	32	122	46.4
Between 41 and 50	9	6.0	22	6.6		-	17	6.5
<b>Education</b>								
College or Bellow	12	7.0	40	11.9	7	3	32	12.2
Under-graduate	32	23.2	154	46.0	35	15	112	42.6
Masters and Above	107	70.9	141	12.1	193	82	119	45.2
<b>Income</b>								
Less than 500 \$			34	10.1	42	18	21	8.0
Between \$500-1000			109	32.5	92	39	80	30.4
Between 1001 and 2000			110	33.8	101	43	86	32.7
Between 2001-above			82	24.5			76	28.9
Above \$2500	15	9.0						
Between \$ 2501-5000	57	37.7						
Between \$5001-7500	52	34.4						
Between \$7501 and above	27	17.9						

**Note:** The Income data collected in their countries unit such Chinese currency measured in term RMB and then standardized in to unit of \$ for basic understanding.

inant, content, and convergence validities. The content validity was measured by verifying the extant literature and conducting pilot studies. Convergent validity was assessed by testing the values of factor loadings, average variance extracted (AVE), and composite reliability (CR). Convergent validity examines the degree to which a factor is related to other variables in the proposed conceptual model. The recommended minimum threshold levels for AVE, CR, and Cronbach's Alpha are 0.50, 0.70, 0.70, respectively (Fornell and Larcker, 1981; Hinkin, 1998). Cronbach's Alpha and composite reliability are viewed as the two reliable statistical techniques for measuring construct reliability, which considered acceptable if the alpha and CR values exceed 0.70 (Fornell and Larcker, 1981). Table 2 shows that for all samples, the factor loadings of all items are higher than 0.70. In addition, discriminant validity, Table 3 shown that the inter-correlation value between all constructs, was less than the square root of AVE for each construct (Fornell and Larcker, 1981). The correlation results of all countries are presented in Table 3.

4.2. Common method bias

The data for this research were collected using the same survey method from all four countries. Scholars proposed that when data were collected from a single source there is the possibility of common method bias (CMB) in the data set (Lindell and Whitney, 2001; Podsakoff et al., 2012). In this study, to reduce the concerns over common method bias, several remedies were undertaken before and after data collection following the recommendations of Podsakoff et al. (2003). First, we assured our respondents on the privacy and confidentiality of their responses; second, well-established scale designs were used to avoid vagueness; third, we pre-tested the questionnaire in China as the translation was performed and made necessary corrections before collecting data. Furthermore, as suggested by Podsakoff et al. (2003), we conducted Harman's single-factor test for each sample to check if common method bias was an issue. The results of the Herman test reveal that in all four countries, a single factor has a value of the variance less than 50% (USA: 20.89%, China: 25.08% Pakistan 26.07%, India: 22.74%). In addition, Table 3 indicates that the inter-correlation of all the constructs is less than 0.90 (Pavlou and El Sawy, 2006). These findings show that CMB is not a big issue in this research.

Table 2  
Result of measurement Analysis.

Constructs	USA				China				India				Pakistan			
	FL	α	CR	AVE	FL	α	CR	AVE	FL	α	CR	AVE	FL	α	CR	AVE
Impulsive Buying	0.73–0.87	0.84	0.88	0.64	0.75–0.89	0.89	0.90	0.69	0.74–0.82	0.78	0.85	0.60	0.73–0.88	0.89	0.89	0.67
Perceived Arousal	0.63–0.82	0.76	0.84	0.58	0.69–0.79	0.75	0.68	0.55	0.74–0.80	0.79	0.86	0.61	0.74–0.89	0.82	0.88	0.65
Obsessive buying	0.73–0.89	0.86	0.89	0.68	0.68–0.94	0.90	0.92	0.75	0.74–0.82	0.79	0.86	0.62	0.75–0.88	0.91	0.91	0.73
Scarcity of Time	0.68–0.79	0.74	0.79	0.56	0.74–0.88	0.83	0.87	0.68	0.71–0.85	0.71	0.83	0.64	0.77–0.86	0.84	0.87	0.69
Scarcity of Quantity	0.82–0.91	0.86	0.91	0.72	0.95–0.96	0.95	0.93	0.88	0.56–0.84	0.70	0.81	0.53	0.90–0.92	0.93	0.96	0.84
Social media excessive use	0.79–0.91	0.92	0.93	0.69	0.79–0.86	0.91	0.93	0.70	0.50–0.82	0.78	0.80	0.52	0.79–0.86	0.91	0.93	0.69
Urge to buy Impulsively	0.70–0.84	0.83	0.88	0.65	0.77–0.89	0.85	0.90	0.69	0.80–0.88	0.86	0.90	0.70	0.77–0.89	0.85	0.90	0.68

Note: FL= Factor load; α = Cronbach Alpha.

4.3. Hypothesis testing

Our results show that limited quantity scarcity significantly and positively predicts perceived arousal in all countries [USA: (B = 0.32, t = 3.20, p < 0.01)], [China: (B = 0.30, t = 5.63, p < 0.01)], [India: (B = 0.39, t = 7.03, p < 0.01)], and [Pakistan: (B = 0.35, t = 6.03, p < 0.01)], respectively]. Therefore, H1 is supported. In addition, limited time scarcity is significantly and positively related to perceived arousal in all samples [USA: (B = 0.25, t = 2.72, p < 0.01)], [China: (B = 0.29, t = 5.45, p < 0.01)], [India: (B = 0.48, t = 9.96, p < 0.01)], and [Pakistan: (B = 0.17, t = 2.86, p < 0.01)], respectively]. Thus, H2 is validated.

Our results also show that in all countries except for India, excessive social media use significantly strengthens the influence of LQS on perceived arousal [USA: (B = 0.15, t = 2.15, p < 0.05)], [China: (B = 0.11, t = 1.96, p < 0.05)], [India: (B = -0.00, t = -0.01, p > 0.05)], and [Pakistan: (B = 0.23, t = 3.36, p < 0.01)], supporting H4 in all countries except for India. Similarly, in all countries except for India, excessive social media use significantly strengthens the influence of LTS on perceived arousal [USA: (B = 0.10, t = 1.97, p < 0.05)], [China: (B = 0.12, t = 2.49, p < 0.05)], [India: (B = -0.02, t = -0.57, p > 0.05)], and [Pakistan: (B = 0.14, t = 2.49, p < 0.05)], supporting H5 in all countries except for India. These results demonstrate excessive social media use moderate the relationships between scarcity messages and individual's perceived arousal in all countries except for India.

Further, the results from this study show that perceived arousal positively related to impulsive buying with [USA: (B = 0.27, t = 2.73, p < 0.01)], [China: (B = 0.34, t = 4.90, p < 0.01)], [India: (B = 0.41, t = 8.37, p < 0.01)], and [Pakistan: (B = 0.38, t = 6.91, p < 0.01)]. Thus, H6 is supported. Similarly, perceived arousal positively related to obsessive buying with [USA: (B = 0.30, t = 4.27, p < 0.01)], [China: (B = 0.33, t = 4.60, p < 0.01)], [India: (B = 0.52, t = 11.57, p < 0.01)], and [Pakistan: (B = 0.33, t = 4.60, p < 0.01)]. H7 is also validated by the current study.

Finally, the results reveal that urge to buy impulsively moderates the association between perceived arousal and impulsive buying [USA: (B = 0.12, t = 2.01, p < 0.05)], [China: (B = 0.16, t = 3.01, p < 0.05)], [India: (B = 0.04, t = 1.09, p < 0.05)], and [Pakistan: (B = 0.16, t = 2.01, p < 0.05)]. H8 is supported in all countries except for India. Similarly, our results show that urge to buy impulsively moderates the association between perceived arousal and obsessive





USA													
Construct	M	SD	1	2	3	4	5	6	7	8	9	10	11
7- Urge to buy impulsively	2.83	1.04	0.30**	0.18**	0.31**	0.32**	0.48**	0.20**	0.71				
8- Income	N/A	N/A	-0.08	0.01	-0.05	-0.05	-0.01	-0.05	-0.08	N/A			
9- Education	N/A	N/A	0.03	0.05	-0.01	0.04	0.06	-0.13	0.05	0.18	N/A		
10- Age	N/A	N/A	-0.06	-0.03	-0.06	-0.06	-0.06	-0.16	-0.04	0.22	0.37	N/A	
11- Gender	N/A	N/A	0.03	0.06	0.06	0.01	0.03	-0.16	-0.03	0.09	0.18	-0.06	N/A

Note: \*\*p < 0.001, \*p < 0.05.

buying [USA: (B = 0.13, t = 2.05, p < 0.05)], [China: (B = 0.15, t = 2.15, p < 0.05)], [India: (B = -0.04, t = -0.79, p < 0.05)], and [Pakistan: (B = 0.16, t = 2.11, p < 0.05)]. H9 is validated in all countries except for India. To offer additional evidences supporting the moderating effects proposed in H3, H4, H5, and H6, the simple slopes for these moderating results were plotted in Figs. 3–12(See supplementary file). Table 4 shows all the results of hypothesis testing.

5. Discussion

This research aims to examine the underlying mechanism of panic buying behaviors during the unprecedented COVID-19 pandemic under the theoretical guidelines of the SOR model and the competitive arousal model. Overall, across all four countries, we found that the panic raised due to COVID-19 creates fear of scarcity among consumers, which increases the perceived arousal level and ultimately leads to impulsive and obsessive buying behaviors. These results are consistent with previous research and provide empirical support for the SOR model and competitive arousal model.

Our results show that during COVID-19, the external stimuli (LQS and LTS) significantly and positively affect perceived arousal. That is,

the more fear or panic about the shortage of goods and concerns about limited time to shop, the high psychological stress people will experience. Data from the four countries demonstrate that the global panic-buying phenomenon is mainly caused by fear of scarcity and psychological stress. Some real-world examples also show the connection between scarcity messages and panic. For instance, the announcement made by a U.K. pharmacy limiting the sales of toiletries and hand sanitizers and news about food items such as pasta and noodles all sold out in supermarkets in Hong Kong definitely increased the panic among consumers and promotes their impulsive and obsessive buying (Lufkin, 2020; Robinson et al., 2016).

Moreover, our results show that consumers who have a higher level of perceived arousal state during the COVID-19 pandemic are more likely to buy impulsively and obsessively. Previous studies on impulse buying behavior have focused on various determinants responsible for the behavioral outcomes including marketing stimuli, traits, and motives. These researches advance our understanding of impulsive buying. However, few studies have explored the underlying mechanism from stimuli to behavior. Based on the SOR model, this study examined the influencing path from stimuli to arousal then to behavioral outcomes. As expected, we found that a high level of perceived arousal is a strong

Table 4  
Moderation results.

	USA			China			India			Pakistan		
	B	SE	t	B	SE	t	B	SE	t	B	SE	t
Outcome: Perceived Arousal	(R <sup>2</sup> = 0.21)			(R <sup>2</sup> = 0.21)			(R <sup>2</sup> = 0.15)			(R <sup>2</sup> = 0.31)		
Constant:	0.13	0.80	0.16	-0.09	0.39	-0.23	-0.24	29.6	-0.82	-0.29	0.47	-0.62
Scarcity of quantity	0.32	0.10	3.20**	0.30	0.05	5.63**	0.39	0.05	7.03**	0.35	0.05	6.01**
Excessive use of social media	0.22	0.09	2.23*	0.15	0.04	3.26**	0.04	0.05	0.85	0.24	0.05	4.08**
Scarcity of quantity * Excessive use of social media	0.15	0.18	2.15*	0.11	0.05	1.96**	-0.00	.047	-0.01	0.23	0.07	3.36**
Income	0.07	0.07	1.09	0.04	0.03	0.11	0.02	0.07	0.29	0.07	0.04	1.73
Education Level	-0.04	0.13	-0.31	0.07	0.07	1.05	0.03	0.07	0.39	0.06	0.08	0.76
Age	-0.06	0.13	-0.31	-0.07	0.07	-0.92	-0.01	0.04	-0.35	-0.09	0.08	-1.10
Gender	0.02	0.12	0.21	-0.03	0.07	-0.92	0.01	0.10	0.99	0.15	0.08	1.86
<b>Outcome: Perceived arousal</b>	<b>(R<sup>2</sup> = 0.14)</b>			<b>(R<sup>2</sup> = 0.15)</b>			<b>(R<sup>2</sup> = 0.25)</b>			<b>(R<sup>2</sup> = 0.19)</b>		
Constant:	0.12	0.84	0.41	-0.14	0.04	1.46	-0.34	0.27	-1.22	-0.23	0.56	-0.41
Scarcity of Time	0.25	0.09	2.72**	0.25	0.04	5.45**	0.48	0.04	9.96**	0.17	0.06	2.86**
Excessive use of social media	0.19	0.11	2.01*	0.15	0.05	2.99*	0.08	0.04	1.72*	0.25	0.07	3.25**
Scarcity of quantity * Excessive use of social media	0.10	0.11	1.97*	0.12	0.05	2.49*	-0.02	0.04	-0.57	0.14	0.05	2.49*
Income	0.09	0.06	1.54	0.03	0.03	0.83	0.04	0.06	0.73	0.10	0.04	2.27
Education Level	-0.07	0.15	-0.46	0.07	0.07	0.94	0.02	0.07	0.34	0.01	0.09	0.15
Age	-0.04	0.15	-0.30	-0.06	0.08	-0.62	-0.01	0.04	-0.29	-0.05	0.09	-0.60
Gender	0.05	0.12	0.48	-0.04	0.07	-0.62	0.12	0.10	1.28	0.07	0.08	0.82
<b>Outcome: Impulsive buying</b>	<b>(R<sup>2</sup> = 0.20)</b>			<b>(R<sup>2</sup> = 0.26)</b>			<b>(R<sup>2</sup> = 0.26)</b>			<b>(R<sup>2</sup> = 0.22)</b>		
Constant:	-0.28	0.59	-0.47	-0.11	0.35	-0.32	0.20	0.27	0.74	0.63	0.48	1.30
Perceived Arousal	0.27	0.10	2.73**	0.34	0.07	4.90**	0.41	0.04	8.37**	0.38	0.05	6.91**
Urge to buy impulsively	0.20	0.08	2.26**	0.27	0.07	3.95**	0.23	0.04	4.76**	0.27	0.07	3.46**
Perceived arousal * Urge to buy impulsively	0.12	0.9	2.01*	0.16	0.06	3.01*	0.04	0.04	1.09	0.16	0.09	2.01*
Income	-0.006	0.06	-0.09	0.03	0.04	0.88	-0.07	0.06	-1.16	-0.11	0.05	-2.03
Educational Level	0.24	0.10	2.24	0.13	0.06	2.17*	0.03	0.07	0.50	-0.01	0.07	-0.23
Age	-0.23	0.12	-1.94	-0.18	0.07	-2.53*	-0.03	0.04	-0.91	-0.12	0.10	-1.19
Gender	0.17	0.14	1.27	0.24	0.09	2.65	0.00	0.09	0.02	0.10	0.10	0.98
<b>Outcome: Obsessive buying</b>	<b>(R<sup>2</sup> = 0.16)</b>			<b>(R<sup>2</sup> = 0.21)</b>			<b>(R<sup>2</sup> = 0.37)</b>			<b>(R<sup>2</sup> = 0.18)</b>		
Constant:	0.99	0.64	1.53	0.89	0.39	2.28	0.17	0.25	0.67	0.89	0.39	2.28
Perceived arousal	0.34	0.08	4.27**	0.33	0.07	4.60**	0.52	0.04	11.57**	0.33	0.07	4.60**
Urge to buy impulsively	0.12	0.09	1.99*	0.17	0.06	2.47*	0.21	0.04	4.84**	0.17	0.06	2.47*
Perceived arousal * Urge to buy impulsively	0.13	0.09	2.05*	0.13	0.05	2.15*	0.01	0.04	0.40	0.14	0.05	2.11*
Income	-0.09	0.07	-1.24	-0.11	0.04	-2.36	-0.04	0.06	-0.79	-0.11	0.04	-2.36
Education Level	-0.02	0.11	-0.18	-0.03	0.06	-0.51	-0.06	0.06	-1.01	-0.03	0.06	-0.51
Age	-0.21	0.13	-1.60	-0.17	0.08	-1.94	-0.00	0.03	-0.01	-0.17	0.08	-1.94
Gender	0.05	0.13	-0.43	0.10	0.09	1.08	0.09	0.09	1.02	0.10	0.09	1.08

Note: \*\*p < 0.001, \*p < 0.05.

determinant of impulsive and obsessive purchasing behaviors, which supports the SOR and enriches the research on impulsive buying.

One interesting finding of this study is that in different countries, consumers engage in panic buying or hoarding for different categories of products. For example, in developing country case of Pakistan, people tend to hoard items like rice, cooking oil, and flour; in the developed and emerging markets (e.g., USA, China, and India), consumers are hoarding items like toiletries, masks, and sanitizers, but not food. This difference may be due to the different concerns people have in different countries, which indirectly reflect the economic development status of these countries. In sum, compulsive buying may be a behavior most customers experience during the crises to ease psychological stress and anxiety and findings from this research show that the consumers' behavioral outcomes appear to be driven by an underlying mechanism from scarcity messages to perceived arousal.

During the COVID-19 pandemic, billions of people are refrained at their homes under the government lockdowns. In this very unusual circumstance, Internet and social media usage has seen a drastic surge. People turn to social media for news and information and for maintaining relationships with families and friends in quarantine. Industry data show that there have been an approximately 20% increase in Internet usage in the pandemic around the world. According to a global survey conducted by Watson (2020), during COVID-19, online users spending as much as 40% more time on social media. An important finding from this study is that during the COVID-19 pandemic, excessive social media use moderate the effect of LQS and LTS on customer's perceived arousal in all countries except for India. Prior studies have found that excessive social media use has an impact on the consumer buying behavior and psychological outcomes (Liu et al., 2016; Luqman et al., 2020). Findings from the current research support this argument and provide evidences in an extreme crisis context. Based on our data from four countries, we found that during COVID-19, excessive social media use strengthens the direct effect between the scarcity messages and perceived arousal in all countries except for India. A possible explanation is that people who use social media excessively are often exposed to a high volume of news related to hoarding, empty shelves in the supermarket, and store restrictions on purchasing certain items. The powerful imagery of panic-buying phenomenon on social media magnifies the impact of fear of scarcity on arousal level. Lufkin (2020) argued that there is a clear connection between excessive use of twitter and people's panic level. Additionally, our findings also support the notion that addiction to social media is associated with psychological outcomes, which resulted in issues such as compulsive buying, anxiety, and poor life satisfaction.

Our results from multi-country data show that the urge to buy impulsively strengthens the relationship between perceived arousal and behavioral outcomes in three countries of the U.S., China, and Pakistan but not in India. These findings are largely consistent with the past literature, which suggested that the urge to buy impulsively is an intention to purchase impulsively and have a significant impact on impulsive buying (Huang, 2016). This research provides a more in-depth understanding of the urge to buy impulsively by examining its moderating effect on the relationship between perceived arousal and behavioral outcomes.

Interestingly, the findings of the moderating effects of the urge to buy impulsively vary in different countries. In the U.S., China, and Pakistan, people showed a high level of urge to buy impulsive whereas in India, the level of urge to buy impulsively is relatively low. The insignificant result of the Indian sample may be due to the fact that the pandemic is not as severe in India as it is in other countries. The Indian government learned from other countries' mistakes and implemented lockdown early and quickly, which effectively prevented the widespread of the virus in India. In addition, the Indian government provided necessary support to ensure the supply of essential food and

other commodities. Lastly, the Indian culture and Indians' higher trust of their government could also contribute to the less panic among its people. Furthermore, impulse buying behavior research has been long aimed at the association between marketing stimuli and their buying behavior. Past literature mainly conducted research on the impulsive buying on the conventional determinants such as marketing stimuli, traits, and motives, while the extant literature significantly advances our understanding of the various determinants responsible for the behavioral outcomes. Furthermore, the research based on the SOR model explores that arousal mechanism also leads to behavioral outcomes. As expected, high perceived arousal was found to be a strong determinant of impulsive and obsessive purchase. According to the cognitive load theory, customers' minds have less control to process the different bulk information in a proper way. Such excessive information results in the standard type of behavior to release psychological tension. Thus, consumer those having high perceived arousal state during the COVID-19 pandemic will probably buy impulsively and obsessively. In addition, the current studies in the multi-countries data found that urge to buy impulsively strengthens the relationship between the perceived arousal and behavioral outcomes except for India. The findings corroborate with the past literature. Past research suggests that the urge to buy impulsively might be viewed as an intention to purchase impulsively.

### 5.1. Theoretical contributions

The present research provides several theoretical contributions to the marketing literature. First, to our best knowledge, this study is the first academic research conducted to investigate consumers' panic buying behaviors in multiple countries in the COVID-19 pandemic. Existing research aimed to understand customer impulsive and obsessive buying behaviors is lacking at best (Iyer et al., 2020). Under the guidelines of the SOR and competitive arousal model, the current research extends the existing impulsive buying research to the impulsive and obsessive buying behaviors during the particular crises of COVID-19. In addition, when examining the impact of scarcity and arousal on consumer behavior, most previous studies use promotional scarcity messages as stimuli to manipulated the environment. This study, on the other hand, achieves the similar stimulated situation naturally as people experiencing the panic and fear caused by COVID-19 in the real world. By integrating the heightened panic naturally caused by the pandemic instead of manipulations of marketing stimuli, we theorize and test the underlying mechanism that exists from scarcity messages (LQS, LTS) to consumer impulsive and obsessive buying.

Second, the COVID-19 pandemic is an unprecedented crisis affecting billions of people globally. We design our research in a multi-country setting to ensure the representativeness and robustness of our findings. Data were collected from four countries with different levels of COVID severity and different economic development stages including the U.S. China, India, and Pakistan. This research design produces results that are more generalizable and provides a comprehensive understanding of panic buying during COVID-19. In addition, the multi-country design also offers some insights on the similarities and differences of how consumers in different countries respond to the pandemic. For example, across all samples, scarcity messages (e.g., LQS, LTS) play a primary role in generating perceived arousal, which in turn significantly influence consumers' impulsive and obsessive buying behaviors. However, the moderating effects of excessive social media use and urge to buy impulsively vary across countries.

Thirdly, this research incorporates excessive social media use and urge to buy impulsively in the influencing process to provide additional explanation of consumer compulsive behavior in the crisis. The SOR model and the competitive arousal model provide sound theoretical explanations of the impact of scarcity messages on arousal and further on consumer behavioral outcomes. However, recent studies suggest that

the influencing process may be more sophisticated than the direct paths proposed. In this research, we incorporate two important moderators including excessive social media use as much research has suggested that social media use affects consumer behaviors (Lee et al., 2012; Nash et al., 2019). As billions of people under lockdowns and staying at home during COVID, there is a striking surge of Internet and social media use. Under this unique context, our study further confirmed the critical role of social media use on triggering the cognitive and emotional reactions in individuals, which significantly associated with consumer buying behaviors. Our findings show that excessive social media use plays an amplifier role moderating the relationship between scarcity messages and perceived arousal in all countries except for India.

Finally, as discussed in the literature review, findings from previous research on panic buying in natural disasters are inconsistent and inconclusive. Scholars disagree on the extent and length of consumers' panic response (Nancy, 1988; Perry and Lindell, 2003; Quarantelli, 1999). Results from this study show that consumers' panic raised during the COVID-19 intensifies the effect of scarcity messages as an external stimulus on impulsive and obsessive buying. As such, the study offers new evidences to the argument that panic experienced by consumers during natural disasters significantly influences their impulsive purchasing behaviors. As such, this study builds up the scholarly research on the SOR and the competitive arousal model.

## 5.2. Managerial implications

The findings from this study lead to important implications for policymakers, marketing managers, the World Health Organization (WHO), as well as non-governmental organizations. First, our findings show that scarcity messages positively related to perceived arousal, which ultimately leads to impulsive and obsessive buying. Therefore, to reduce people's panic buying and hoarding, it may be effective for governments and media to communicate and assure the public that panic buying is not caused actual food shortage but fear. Multi-media campaigns including social media, TV, print media and radio, would work the best. The key message should be consistent and aimed to reduce irrational fear among consumers. Grocery stores and supermarkets could launch similar campaigns to promote the reassuring message, demonstrating that there are essential goods on the shelves and the staffs are working diligently to ensure a timely and speedy restock the supplies. In addition, in some cases, putting a quantity restriction on certain products might help to reduce the panic among the customers.

Second, our results show that there is an important self-conscious emotion involved (i.e., perceived arousal) when panic buying in crises. People with a higher level of perceived arousal are more likely to buy impulsively and obsessively (Amos et al., 2014; Bellini et al., 2017; Farah and Ramadan, 2017). Thus, some measures can be adopted to restore individuals' control over this emotion, which may effectively change panic buying behaviors. It is a natural tendency and rational response for people racing to the stores and buy functional products in bulk in natural disasters or pandemic because of fear of shortage and perceived competitions among people. For example, if a person thinks there will be a toilet paper shortage, he is going to stock up. When his friends see this person stocking up toilet papers, they are going to race to the store to stock up too because of the worry that others are stocking up before them. The race to stock up because of the fear of shortage is a rational decision but the end result is panic and the toilet paper shortage. To broke this self-perpetuating process, something like "strategic toilet paper reserve" can be useful: The government could show people that they have enough toilet papers reserved and assure people that if toilet papers are run out at stores, a person can buy two rolls in the reserve per person per week. This simple measure may change people's psychological incentives and reduce the panic.

Third, COVID-19 has posted serious challenges for supply chain management. In the normal time, the supply chain system is designed and operated efficiently with just-in-time production and inventory aimed to cut costs for both manufacturers, distributors, and retailers. However, in the unusual situation of COVID-19, this system has been disrupted by the strains from both the supply and demand ends. As the lockdowns implemented worldwide, many factories and plants are forced to close down and the manufacturers' production capability decreases drastically. On the other hand, the consumer demands for functional products such as food items, hand sanitizers, masks, and toiletries surge rapidly resulting empty shelves in the stores. The limited storage and distribution capability cannot meet the market demands in the panic of the pandemic, which have revealed the deficiencies and weaknesses of supply chain system during the crisis. As the outlook for this pandemic is that life will not go back to normal anytime soon, supply chain managers will need to build up its resiliency and find new creative ways to fulfill the market demands. One way is to aggressively incorporate digital technology in the supply chain management to ensure the instantly information flow and smooth communication among different players. The other change may be restructuring the supply chain to get closer to the market with more local and regional suppliers. For retailers, moving more business online may be an effective way to alleviate the negative impact of COVID-19. During this pandemic, many consumers have turned online for groceries shopping. Curbside pickup and delivery have also become popular for people. These consumer behaviors adopted temporarily could become permanent even after the pandemic. Therefore, retailer stores need to create a safe customer experience and integrate online and offline businesses in order to be successful in the long run.

Fourth, one of the most important findings of the current research is that social media use plays a significant role in moderating the relationship between scarcity messages and the arousal level in people. During COVID-19 lockdowns, social media use has surged drastically. More than ever, people are relying on social media for information, communication, and connection. In certain ways, social media magnify the panic-buying phenomenon during the pandemic. Before social media, people heard and read about crises indirectly. In the social media era, however, people are exposed to dramatic images and graphic video footages constantly. The imagery of social media has a direct and powerful impact on people emotional responses to the COVID-19 pandemic. Seeing others fighting for toilet papers and panic buying food items induces the arousal among people, which leads to negative consequence such as panic buying in societies. On the other hand, social media can also be used to communicate assuring and supporting messages. In particular, policymakers and marketers could engage celebrities and digital influencers to convey positive messages to the general public through social media. Our initial Twitter analysis shows that Indians are not talking much about panic buying or shortage of food supply on social media during COVID-19. Rather, Indians are using social media to spread awareness about the COVID-19 and shows how they find joy in the quarantine situation. An example is the #SARIPICTURE hashtag challenge, in which, each woman post selfie in the sari and make statements about what it means for her to wear a sari, then tag someone to accept this challenge. This challenge proves to be fun to participate, spread positivity, and lift people's mood in a difficult time.

Fifth, the panic buying behavior during the novel coronavirus (Covid-19) triggered in consumers because of mass psychological the phenomenon, which is irrespective of a variety of cultures and geographical boundaries. In the COVID-19 situation, people were not only stockpiled for products related to disease prevention but also rush for general household staples without having any indication of the impending shortage. The role of social media was important to spread the news related to panic buying. For example, people in Singapore witnessed various posts on social media where images of empty store

shelves were flooded. In Hong Kong, the delivery boy robbed of 600 toilet paper rolls at knife-point. Researchers have done the study on a personality test called HEXACO Personality Inventory with 1029 respondents from 35 countries and they concluded that people who are emotionally high and having more conscientiousness were more prone towards panic buying. They also explored that people with high emotionality & conscientiousness scores are more likely to have experience of fear and anxiety of Covid-19 which triggers the panic buying behavior in them. And, the social media platform helped people to spread the communication related to the probable shortage of goods, and those who were already in fear and anxiety of COVID-19 had trust on those social media post and start behaving like stockpiled. This situation could have been manageable if local authorities would have done public communication in a great manner, so that individuals would have low perceptions of threat and anxiety and thereby alter their panic buying. To deal with this situation, Supermarket brands from the UK like Tesco, Asda, Ocado, Sainsbury's, Iceland released an online letter to urged consumers not to shop in an irresponsible manner. Previous studies on pandemic crises were discussing medical guidelines and measures to prevent from diseases, economic growth & slow-down, political stabilities, but this study was majorly focused on panic buying management and consumers' impulsive and obsessive buying behavior. Brand managers and policymakers must have contingency plans to deal with negative effects of a pandemic such as panic buying and consequences of the same. Panic buying may give instant benefits to supermarkets or retailers but they must aware of the short-term & long-term consequences which include a shortage of supplies and goods and a decrease in revenue & unpredictable sales due to stockpiling and hoarding.

Finally, this study examines the panic-buying phenomenon in a multi-country setting, offering important implications for governments, businesses, and organizations on a global scale. The COVID-19 pandemic by definition is a global crisis. The results from this study show more similarities than differences across countries. People around the world share the fear and panic caused by the pandemic. Businesses everywhere are facing similar challenges. Therefore, instead of blaming each other especially between the two largest economies of China and the U.S., coordination and cooperation are needed to combat the pandemic and saving the global economy.

### 5.3. Limitation and future research

The current research makes timely and significant contributions to the consumer behavior literature by investigating the underlying mechanism of panic buying during the COVID-19 pandemic. However, there are several limitations associated with this study. First, COVID-19 is a pandemic affecting more than 180 countries globally. Due to the limited resources, in this study, we collected data from four countries including the U.S., China, India and Pakistan. Future research could validate the findings by including other countries especially the European countries, which are not represented in this study. Second, in the present research, data were collected through the online survey method due to the lockdown condition of the pandemic. Even though our data analysis shows that CMB was not a big concern in this study, future research could employ other methods such as experiments to diversify data sources. In addition, as the pandemic passes its peak in different countries, supermarkets and government agencies will be in a better position to provide the real data of consumers' impulsive and obsessive buying. Third, to keep our model simple, the present research only considers the scarcity messages (LQS, LTS) as the antecedents of perceived arousal, which subsequently leads to impulsive and obsessive buying behaviors. Future research may consider other important variables that might impact behavioral outcomes such as marketing stimuli, traits, and motives among others. Given the high contagious nature of COVID-19, health-related constructs such as safety measures might also be a

key influencing factor. Last but not the least, the measures used in this study were adapted to the COVID-19 context. The adaption may influence the appropriateness and robustness of the scales. Future research is welcomed in developing and validating better measures in this area of research.

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### Declaration of competing interest

None.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jretconser.2020.102357>.

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## **Consumer Behavior Change in Response to the COVID-19 Pandemic**

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**Keywords:** Psychological Reactance, Vulnerability, Health Behaviors, COVID-19, Public Trust

**Description:** Psychological reactance, perceived source credibility, and social trust were examined as predictors in health behavior compliance during the COVID-19 pandemic.

### **EXTENDED ABSTRACT**

#### **Research Question**

Fundamentally, marketing involves risk and value assessment (Baker, 2009). Examining motivations of individuals within a crisis situation allows us to understand the emotional and psychological factors that contribute to behavior change in response to traumatic events. During the COVID-19 pandemic, most consumers were affected by lockdown, job loss, illness, death of loved ones, or a combination of these events. Not all consumers are as prone to feelings of vulnerability (Falchetti, Ponchio, & Botelho, 2016).

When individuals are experiencing vulnerability, or psychological reactance, they seek ways in which they are able to regain control (Baker, 2009; Thyroff, Siemens, & McAlexander, 2018). However, public compliance with health recommendations is key to minimizing risk of spread (Siegrist & Zingg, 2014). The present study explores social trust, vulnerability, and psychological reactance as they relate to compliance with recommended health behaviors during times of crisis.

H1: Preventative health behavior compliance will be positively correlated with (a) perceived vulnerability and (b) social trust.

H2: Empathy will be positively correlated with (a) social trust and (b) perceived vulnerability.

H3: Trait reactance will be negatively correlated with (a) social trust, (b) perceived vulnerability, and (c) compliance behaviors.

H4: Trait reactance will be positively correlated with (a) social consumer behaviors that deviate from health guidelines, (b) adaptation behaviors, and (c) information seeking/activism behaviors

### **Method and Data**

Participants (N=519) were recruited through an email sent out to all students, staff, and faculty of a mid-sized midwestern state university. In all cases, participation was optional. Responses recorded in under two minutes were omitted from data analysis, leaving 224 student and 293 staff/faculty respondents. Respondents were asked to answer a self-report survey assessing: empathy, social trust, trait reactance, concern/vulnerability, behavioral intentions, and compliance behavior participation. Correlations were run examining relationships between all variables.

### **Summary of Findings**

H1: Support found for the link between compliance behaviors and perceived vulnerability, but not for a link between social trust and compliance behaviors.

H2: Completely supported. There were strong positive relationships between empathy and social trust and empathy and perceived vulnerability.

H3: Strong negative correlations were found between trait reactance and both social trust and compliance behaviors. However, there was not a significant correlation between trait reactance and perceived vulnerability.

H4: Findings were opposite to what was predicted. Those with high trait reactance were significantly less likely to participate in social, adaptation, or information seeking/activism behaviors.

### **Statement of Key Contributions**

Fundamentally, marketing involves risk and value assessment (Baker, 2009). Examining motivations of individuals within a crisis situation allows us to understand the emotional and psychological factors that contribute to behavior change in response to traumatic events. There have been calls for social scientists to provide insight on behavioral decisions in order to manage this, and future, health crises (Van Bavel, et al., 2020). Finally, as academics it is important to better understand the intersection between policy, psychology, and consumer behavior in times of extreme behavior change.

**References are available upon request.**

## **SUPER HEROES AT YOUR SERVICE: HOW BUSINESS COMMUNITIES INSPIRE CREATIVITY TO MITIGATE CRISIS**

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**Keywords:** small business; identity; pandemic; online business forum; virtual reality

**Description:** Evaluating virtual reality-photographer in residential real estate, we underscore the pandemic-driven shifts in small business owner identity, revealing online business forums' influence on creative strategies and tensions.

### **EXTENDED ABSTRACT**

#### **Research Question**

The recent pandemic crisis influences the fabric of daily life for all individuals. While many firms are feeling the effects of the COVID-19 pandemic, small business owners (SBOs) are feeling a substantial impact (Eggers, 2020). Although some are eligible for governmental support, many small businesses do not have the deep pockets to sustain their business and may shut their doors never to be reopened. Arguably, crisis brings on a unique anxiety form that pushes SBOs to have an identity crisis, creating role conflict when questioning the essentiality of their role.

The study of SBOs has received little attention in the marketing literature. Yet, the complex nature and divergences from larger organizations make this a robust and important context to study and offers an opportunity to build new theories (Tan et al., 2007). Furthermore, research recognizes communities can support consumers' identity projects, but less research has explored how this can assist SBOs' identity management and strategic changes during a crisis. This research investigates the following research questions: 1) *How do SBOs react and modify strategies to maintain services during a crisis?* and 2) *How do business communities influence strategic changes?*

#### **Method and Data**

To investigate our research questions, we take an inductive, qualitative multi-method approach to assist in our conceptual development. We explore this phenomenon in the context of residential real estate photographers, who have their own businesses, and use an emerging technology of virtual reality (VR)-tours. We scraped relevant data from an online business community, consisting of 221 discussions with 1,001 posts total, by searching for topics related to the terms: COVID, corona, or pandemic. As recommended in a netnography approach, we also captured offline data within the context. This included survey data from members in the community and a prospect list shared with us by the community forum owner. Additional data included narrative

interviews from four SBOs within this market context, lasting on average 56 minutes. Iterative analysis, leveraging constant comparison to the literature and within the data collected (Arnold and Fischer 1994; Spiggle 1994; Tracey 2020), informed the emergent themes.

### **Summary of Findings**

As a result of the COVID-19 crisis, many are left with questions about the new normal. Our exploration of SBOs' engagement with business communities offers a timely contribution to the crisis management literature and the services literature. Our findings suggest that online business communities offer SBOs in service industries an opportunity to build their creativity to manage a crisis beyond formalized learning capabilities (Wyer et al., 2010) and take on a new identity of a "super-hero" to support the marketplace and others in the community. There is an opportunity for business innovation to be a positive result emerging from COVID-19 (Waldron & Wetherbe, 2020). The VR-photographers' innovation is apparent in the form of increased technology use to sustain desired exchanges, not only in real estate but also in a wide array of industries, including retail, entertainment, and food and beverage service. What we recognize, however, is a larger positive of SBOs using business communities to expand their adaptive capabilities (Day, 2011). The adaptability of SBOs' identity and strategies may help create expanded opportunities for not only their business but also vastly different experiences for how the global community lives and works (Eggers, 2020).

### **Statement of Key Contributions**

By leveraging social identity theory as an interpretive lens, we introduce the conceptualization of SBO identity to the services and small business literature. Furthermore, in recognizing the SBOs influence within online business communities, we respond to Pantano et al.'s (2020) call to understand how small businesses can help others cope with crises and support the economy. Following Berger et al.'s (2006) recognition that not all individuals pursue social alliance or social communities to facilitate identity management, our data reveal that SBOs may benefit from attaining support from business communities during times of crisis. By engaging through a business community, the collective strategy (Wang et al., 2020) and identification (Berger et al., 2006) results in a collective SBO identity and associated practices. The attainment of the new identity for SBOs offers ontological security (Giddens, 1984), enabling their productivity. Identity synergy of employees can reinforce organizational identity (Fombelle et al., 2011). As we see by exploring an online business community, that synergy may strengthen a recently adopted identity. In the case of a pandemic crisis, SBOs' newly adopted "super-hero" identity is a transient response, and their identity project will continue to evolve along with the crisis.

References are available upon request.

**THE INTENTION TO PURCHASE VINTAGE APPAREL AMONG GEN Y AND GEN Z ACROSS DIFFERENT ETHNICITIES**

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**Keywords:** Vintage Apparel, Brand Consciousness, Need for Uniqueness, Environmental Attitudes, Ethnicities.

**Description:** This paper investigates how brand consciousness, need for uniqueness, and environmental attitudes affect Gen Y and Gen Z’s purchase intention toward vintage apparel among different ethnicities.

**EXTENDED ABSTRACT**

**Research Question**

With the rising concern for sustainability in the fashion industry as well as the criticisms of the current fast-fashion market model, the vintage apparel industry is on the rise. Many studies place a high focus on the environmental reasons for the rise of vintage clothing and dwindling customer base of mass brands (Cassidy, 2015), however, further investigation is necessary to investigate other contributing factors in these purchase decisions. This study aims to explore different motivations among African-American,

Asian, Hispanic, and Caucasian consumers' intention to purchase vintage apparel. This study will be assessing whether brand consciousness, environmental attitudes, and need for uniqueness have a relationship with the purchase intentions of Gen Y and Gen Z individuals and if different cultural backgrounds have an effect on these intentions. With the evolving marketplace already adjusting to fit consumers' needs, gaining insight into subculture's motivations for purchasing products is crucial in order to find ways to better market to these subcultures.

### **Method and Data**

The study was quantitative research where responses and information were collected through an online survey, using the SONA system in Florida State University. In this study, non-probability convenience sampling was used to recruit participants of all ethnicities who were Gen Y and Gen Z. Questions regarding age, gender, and ethnicities were asked to measure participants' demographics. A multiple answer choice question was used to measure respondent's ethnicity including African-American, Asian, Caucasian, Hispanic, Pacific Islander and American Native. A second question asking for the year they were born was added for accuracy to fit in the 18 to 35 years old criteria.

To ensure the validity of the study, a second question was added in the questionnaire. Invalid and unreliable surveys (n = 78 percent) were deleted. A total of 181 responses were collected, out of it only 40 responses fulfilled the criteria of the study. The study sample's mean age was between 18-22, 97.5 percent of the respondent's being within that age group and consisted of 52.5 percent Caucasians (n=21), 15 percent Hispanics (n=6), 10 percent African-Americans (n=4) and 22.5 percent respondents who chose more than one ethnicity (n=9).

### **Summary of Findings**

It was found that young consumers view vintage apparel positively with need for uniqueness being a significant motivating factor, which supported previous claims in the literature that the rise in second-hand clothing purchases can be attributed to younger generations as vintage stores mark college students as some of their major target market. In terms of environmental attitudes, even though findings showed that the attitudes and intention to purchase were both positively correlated, further investigations are needed. It was found that brand consciousness was negatively correlated with attitude toward and intention to purchase vintage apparel; however, more research is needed. This study found that ethnicity does not have a significant effect on the purchase intention of vintage clothing. The results showed different means for all variables across different ethnicities without significance but can't be generalized due to limited sample size. However, it showed that African-Americans have the most positive attitude towards vintage clothing as well the intention to purchase. Hispanics have the lowest need for uniqueness, contrary to previous literature which discusses that Hispanics teenagers were found to have a higher need for uniqueness as compared to Caucasians; Hispanics were also found to have lower brand consciousness than Caucasians.

### **Statement of Key Contributions**

There are few studies that have compared the intention to purchase vintage apparel among African-American, Asian, Hispanic and Caucasian consumers. This study found that most of the participants had a favorable level of liking towards vintage apparel. Although the different motivations were not significant across ethnicities, the means were quite different considering the sample size, which indicates it is possible that significant



differences could be found in a larger sample size for future studies.

The study also highlights important details for marketers to consider. Since it was found that Gen Z individuals have a positive attitude toward vintage apparel, it is imperative for vintage apparel sites, shops, and distribution centers to increase their online presence, as it is known this market segment is highly tech savvy. Our results also indicate that young consumers today rank high in their need for uniqueness. This asserts to marketers that consumers are looking for apparel that set them apart and help them achieve a distinct self-expression. Brands which find themselves catering to multiethnic consumers should consider pushing individuality as a part of their marketing approach.

## UNPACKING CONNECTED IDENTITY, DIASPORA AND MUSIC CONSUMPTION: AN INTERPRETIVE APPROACH

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**Keywords:** Connected Identity, Diaspora and Music Consumption.

**Description:** This paper comments on diaspora identity is a complex and dynamic process which can be considered as a separate but connected entity.

### EXTENDED ABSTRACT

**Research Question:** While music and identity are both culturally constituted, it is necessary to see how the diaspora (Clifford, 1994) harness music as a catalyst to create cultural change within and outside their communities. We are interested in the fluidity and complexity of the relationship between the diaspora community, old and new culture and the host population in this process. The critical question is: how are immigrants able to make a radical shift towards their new-found home and yet retain their cultural identity through expressions of music?

**Method and Data:** We employ a multi-method and multi-sited research strategy, combined with an interpretive approach to data analysis. This multi-method research strategy combines in-depth interviews and projective techniques (e.g., word association, sentence completion, picture drawing, collages, and thematic apperception test (Rook 2006) and includes triangulation to enhance the trustworthiness of the data (Atkinson, and Hammersley, 1994). Informants within the study were Indian immigrants in Australia, aged between 20 and 46. We followed McCracken's model of the long interview (1988). The interviews were conducted in English and participants were interviewed individually.

**Summary of Findings:** Our overarching goal is to reveal how the Indian diaspora negotiates with their desired identity through music consumption. Our findings revealed four key insights (e.g., *Bygone Self*, *Nostalgia*, *Otherness* and *Balancing the Familiar with the New*) that address our research objective. We unpacked how consumers sense of past is essential to one's sense of self, and consumer identity can be extended, not only in the past material environment but also the present. Considering Indian diaspora's music consumption, we identified how they face the challenge of time, cultural settings and the constant divergences and convergence of desire. Furthermore, our findings affirm the paradox of sameness and differences in ways that are introspective of consumer desire and expectations in their everyday life; the space and understanding of the rational in post-assimilationist theory. We also found that the Indian diaspora desire for their homeland is persistent; we find a more profound view on their desire for the new place. The balance and harmony achieved within the connected-self for this new place are, in essence, Heterotopia (Foucault and Miskowiec, 1986).

**Statement of Key Contributions:** Our research strongly supports the framework of the post-assimilationist model. By framing the process and discourses that influence the formation of negotiated diasporic identity and incorporating consumer passion with music consumption in a different cultural setting, we present that the Indian diaspora, in the Australian context is ideal for this study, as these diasporas as consumers are closely associated an interconnected identity, desire, space and time. We contribute to the consumer culture theory by showing that the Indian diaspora in their process of acculturation, the space of living in the connected self creates a 'happy medium' for an individual who has emulsified the bygone self with the desired self and sees the melding of the familiar with the new; the nostalgia with otherness.

## Reference

References are available upon request.

# **Branding and Brand Management**

## **BRAND ADDICTION: AN IN-DEPTH STUDY OF LUSH'S COMMUNITY OF ADDICTS**

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**Keywords:** brand addiction, online community, brand love, netnography.

**Description:** This study provides a nuanced and rich understanding of brand addiction through immersion in an Instagram community of brand addicts devoted to the brand Lush.

### **EXTENDED ABSTRACT**

#### **Research Question**

Intense consumer-brand relationships, whether positive or negative, are of increasing interest to practitioners and theorists. Brand addiction is one of the most intense form of relationship (Mrad 2018; Mrad and Cui 2017); it involves mental and behavioural obsession towards a brand that individuals cannot help but consume (Fajer and Schouten 1995). Despite some recent investigations of the concept, comprehending the notion of brand addiction remains limited. To increase understanding of the nature of brand

addiction, this study focuses on an Instagram community of brand addicts. It seeks to validate and extend the brand addiction components identified in past work and explore some contradictions associated with the current conceptualization of brand addiction.

### **Method And Data**

This study investigates the community of consumers addicted to Lush who share their addiction on Instagram. Lush represents a fertile ground for the study of brand addiction as its dependence is recognized (Roux 2017). The starting point was the hashtag #lushaddict, in line with previous work using hashtags (e.g., Dessart and Duclou 2019). A post was selected if at least one component of brand addiction (Mrad 2018) was found in the post. 191 posts (170 images/21 stories) were selected (16-month period). These posts were converted into 921 distinct observations connected to one or more of the components, since one post could contain several links to brand addiction. Content of each post was analysed and several coding cycles were conducted (Saldaña 2015).

### **Summary of Findings**

An analysis of the community suggests that brand addiction can be defined as a psychological state characterised by intense and obsessive love towards the brand, brand-related compulsive thoughts and actions, and several rituals and habits directed towards the brand. This state generally procures pleasure but is recognised as problematic. The 11

components proposed by Mrad (2018) were identified, such as obsession and dependence, habits and rituals, loss of control, or failure to withstand impulses. 8 new components were identified, such as indulgence towards the brand, product accumulation, or brand love. Results further provide a rich qualitative understanding of each component and how it is expressed by consumers. For example, for the first component, analysis confirms that buying Lush products is not a simple desire but an obsession (“I am obsessed”, “It’s the most addictive thing in my life”). Several members add to their posts hashtags evocative of this obsession (e.g., #lushaddict, #lushismydrug). The analysis of lushies’ behavior reveals that the brand is their main source of preoccupation; they always want more Lush products.

### **Statement of Key Contributions**

This study provides an in-depth investigation of brand addiction. It seeks to validate and extend the brand addiction components identified in previous work and explore inconsistencies associated with the current conceptualisation of brand addiction. Overall, this study aims to provide a nuanced and rich understanding of brand addiction through immersion in a community of brand addicts. The analysis results show that brand addiction has both positive and significant negative characteristics, which increases understanding of the concept and its subtleties. Brand addiction is one of the most intense types of consumer-brand relationships and is associated with valuable consequences, as the brand products are loved, purchased, accumulated, and obsessed about. Hence, brand managers are encouraged to increase their knowledge of the notion while remaining sensitive to its

potential negative effects for consumers. The study results are intended to provide them with a detailed understanding of the manifestations of brand addiction and indicate some of its facilitators, such as brand personalisation, consumer co-creation, and a remarkable first consumer-brand experience. Findings enrich the understanding of ambivalent forms of consumer-brand relationships and increase understanding of an understudied but increasingly relevant brand construct.

References are available upon request



**BRAND CAUSE PROXIMITY AND BRAND CREDIBILITY: WHY DOES BRAND CAUSE PROXIMITY AFFECT BRAND CREDIBILITY?**

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**Keywords:** brand cause proximity, message frame, brand credibility, persuasive strength

**Description:** This paper investigates that in what situations the brand's close proximity to the CSR campaign leads to a positive effect on brand credibility.

**EXTENDED ABSTRACT**

**Research Question** – Our study aims to contribute to brand cause proximity literature by investigating the effect of brand cause proximity on brand credibility. Even though some researchers investigated brand cause proximity, but the findings suggested no relationship to positive relationship or even a negative relationship. One study (Bigné et al. 2012) acknowledges that inconclusive evidence and argues that the past studies did not empirically examine the degree (i.e., magnitude, higher or lower fit) of cause brand proximity or types (i.e., functional, product and image fit) of cause brand proximity, and that may be the reason behind that lack of empirical consensus. However, we suspect that the lack of relationship or the existence of the relationship between brand cause proximity and brand credibility depends on activating consumer awareness about the proximity of the brand to the cause that the brand is advocating. We thus investigate:

1. Does higher brand cause proximity leads to higher brand credibility?

2. Does consumer perceived proximity mediate the relationship between brand cause proximity and brand credibility?

3. What is the effect of persuasion knowledge in the relationship between brand cause proximity and brand credibility?

**Method and Data** – We have conducted four experiments to examine our hypotheses. In our first study, we have tested whether a brand’s CSR message that has close proximity to the brand has a more positive effect on brand credibility. In our second study, we have also tested the effect of brand cause proximity on brand credibility, but we have tested with both gain and loss message frames. In our third study, we have experimented with the effect of brand cause proximity on brand credibility when consumers are not aware of the proximity. In our fourth experimental study, we have tested the effect of persuasion knowledge in the relationship between brand cause proximity and brand credibility. We have recruited students from different state universities for all four experiments, and their participation was compensated with class credit.

**Summary of Findings** - The result shows that the brand with high proximity to the cause is more credible in the consumers' eyes. Thus, Sensus sunscreen (close proximity brand) running an awareness campaign to aware people of the health danger of not using sunscreen generates more brand credibility for Sensus sunscreen. However, this same campaign running by Sensus perfume (moderate proximity brand) or Sensus financial (distant proximity brand) does not generate a similar level of brand credibility. We have also found that the positive effect of brand cause proximity on brand credibility is mediated by consumer awareness of the brand cause

proximity. Asking consumers to measure the proximity between the brand and the cause may entice consumers to think more favorably about the campaign of the close proximity brand. The effect exists for both gain and loss message frame conditions. We also find that if we do not ask participants to think about the proximity between the brand and the cause, then the positive effect of brand cause proximity on brand credibility does not exist. Result also shows that when consumers have access to persuasion knowledge, high proximity has an adverse effect on brand credibility. When consumers do not form persuasion knowledge, then brand cause proximity positively affects brand credibility.

**Statement of Key Contributions** - One of our study's key theoretical contributions is providing evidence of both the existence and nonexistence of brand cause proximity to brand credibility. By doing this, we argue that both groups of researchers are right about their claims. Based on our findings, we argue that the presence or absence of brand cause proximity to brand credibility lies in motivating consumers to think about the brand's proximity to the cause. In our first two studies, we find that brands with high proximity to the cause are perceived as more credible. Moreover, the relationship between brand cause proximity and credibility exists for both the gain and loss messages. Thus, a sunscreen brand, conducting an awareness campaign about the benefits (losses) of sunscreen will be perceived as more credible than a toothpaste brand as sunscreen brand is perceived as closer to the campaign than the toothpaste brand. However, in those studies, we motivate consumers to think about the proximity of the brand to the cause, which leads consumers to react more favorably to a brand with higher proximity to the cause. In our third study, we did not lead consumers to think about the proximity of the brand to the cause, and hence we find that brand cause proximity does not have any effect on brand credibility. So,

our study's major takeaway is that the effect of brand cause proximity on brand credibility lies in activating consumer awareness about the brand's proximity to the cause.

## **BRAND PROTECTION ACTIONS: A SYSTEMATIC LITERATURE REVIEW**

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**Keywords:** brand protection, counterfeiting, literature review, marketing strategy

**Description:** This paper summarizes and integrates prior literature on firm responses to counterfeits and identify an inventory of future research avenues that deserve more attention based on prior literature.

### **EXTENDED ABSTRACT**

#### **Research Questions**

In recent years, counterfeiting has become a critical issue for firms around the world largely due to the advancement of technology and the globalization of trade. In addition to its immediate financial impact on firms, counterfeited products can be seen in a wide range of industries from foods, medicines, textiles, and clothing, to household appliances, automotive parts, and even to aircraft parts. Counterfeiting weakens brand associations leading to brand erosion in the long run (Commuri, 2009; Satomura, Wedel, and Pieters 2014). Given the overall negative impacts of product counterfeiting, practitioners have strong incentives to protect their brands (Ertekin, Sorescu, and Houston 2018). In this study, we explore the supply side of the

counterfeit trade with our focus on the marketing perspective. Specifically, our study has three objectives: 1) to summarize and integrate prior literature on firm responses to counterfeits systematically to take stock of knowledge in this area from a marketing perspective (cf. Staake, Thiesse, and Fleisch 2009; Yang and Sonmez 2017), 2) to provide a robust list of marketing actions that firm can take to protect their brand, and 3) to identify an inventory of future research avenues that deserve more attention based on prior literature.

### **Summary of Findings**

Building on prior literature reviews in this domain (cf. Staake, Thiesse and Fleisch 2009; Yang and Sonmez 2017), we adopt a historical perspective to summarize the findings based on the evolution of brand protection studies from the early 1980s until now in three phases: Exploration Phase (1980-1999); Development Phase (2000-2009); Integration Phase (2010-2018). This classification reflects the brand owners' growing awareness as well as the increasing involving position against brand infringement issues. Academically, from a sporadic and exploratory groundwork to a more consistent and integrated status, each phase is characterized by different types of studies to help us understand brand protection strategies and achieved progress in understating their impacts on various outcomes and stakeholders.

### **Statement of Key Contributions**

Our study makes several contributions to the literature. First, using transparent and replicable procedures we provide a more comprehensive and systematic review of the brand protection issues from a marketing perspective. In contrast to prior reviews that

adopted a broader perspective, our review provides a more focused approach based on marketing literature. Second, different from prior review papers that primarily focus on other level of analysis of the brand protection issues, we focus on firm-level brand protection actions, which is a domain that has been under-investigated in the marketing literature.

From the review, we noticed a tendency of scholars advocating a joint effort from different external stakeholders. This is because they are all victims of the counterfeits: the challenges are not only faced by the brand owners, but also by the other stakeholders such as business partners, governments, and local community (due to the integrated relationships). Our review highlights the best practices that practitioners have been doing to enhance cross-stakeholder information sharing and various forms of collaboration; we also make suggestions to promote multi-stakeholder endeavors in terms of both knowledge and practice integration.

*References are available upon request.*

## **BUILDING BRAND ATTACHMENT THROUGH ANTHROPOMORPHIC BRAND DESIGN**

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**Keywords:** Brand Attachment, Anthropomorphic Brand Design, Attachment Style, Brand-Consumer Relationship

This paper reveals how preoccupied vs. dismissing consumers respond to anthropomorphic brand design.

### **EXTENDED ABSTRACT**

#### **Research Question**

Anthropomorphic brand designs (ABD) are widely used as an ingredient in building a brand, such as developing a human brand (e.g., Michael Jordan), or creating a brand with humanlike characteristics (e.g., Wendy's or Alexa). From a brand-consumer relationship perspective, brands can serve as relationship partners for consumers to satisfy a need for social connection (e.g., Fournier 1998; Huang, Huang and Wyer 2018; Mourey, Olson and Yoon 2017). Marketers use ABD as a way to build a bond between a brand and consumers.

However, few studies explore how individual differences (e.g., attachment style) influence consumers' responses to anthropomorphic (vs. non-anthropomorphic) brands. Individual differences are relatively stable across contexts. They not only affect the desire to interact with others (Thompson, Whelan, and Johnson 2012; Hoffman and Novak 2018), but also



influence consumers' perception towards anthropomorphic entities (Waytz, Cacioppo, and Epley 2010). Therefore, examining how brands serve consumers from the perspective of attachment style provides another perspective to scrutinize consumer-brand relationships, and helps researchers build comprehensive knowledge of this area. Moreover, few researches provide direct evidence for consumers' attachment toward an anthropomorphic brand under the influence of attachment style.

### **Method and Data**

Participants (n=120, MTurk) were asked to write a story about their life experience with someone not related to them but whom they highly value (manipulated for preoccupied style), or a new person in a new relationship (manipulated for dismissing style). Then participants watched one of two videos introducing a vacuuming robot (non-anthropomorphic vs. anthropomorphic robot). In the non-anthropomorphic brand condition, we used a 30s clip of the official Roomba® 600 series advertising commercial. In anthropomorphic brand condition, we used a 30s video clip in which the vacuuming robot featured a "smiling face" with humanlike eyes attached on the top surface. After watching the video, participants reported their emotional attachment (EA) to iRobot Roomba® and other measures.

Consumers' EA was measured with four items adopted from prior research (Jiménez and Voss 2014). Each item was measured on a 11-point semantic differential scale anchored by "no/strong emotional bond", "not emotionally connected/emotionally connected", "not linked/linked by feelings", and "no/strong feelings of attachment" ( $\alpha = .97$ ; one-factor solution accounting for 91.31% in EFA). Consumers' anthropomorphization was measured by the item "how likely is it that vacuuming robot you saw has a mind of its own?" (1 = "extremely unlikely" and 11 = "extremely likely").

### **Summary of Findings**

In this study, both preoccupied and dismissing consumers tended to attach to the anthropomorphic rather than non-anthropomorphic brand. The mechanisms underlying the process of developing EA toward anthropomorphic (vs. non-anthropomorphic) brand vary by attachment style. For preoccupied consumers, ABD has an indirect effect on EA through consumers' anthropomorphization of the brand, whereas there is no significant direct effect of ABD on EA. This result implies that driven by desire for interpersonal relationships, preoccupied consumers may anthropomorphize a brand and form EA toward the brand. The key is that preoccupied consumers actually attribute humanlike features to a brand and see it as a "human". This finding is consistent with the view that consumers may use brands as a substitute for social connections (Chen, Wan, and Levy 2017).

### **Key Contributions**

Brand-consumer relationships are an important issue for both marketers and academics. The bond between consumers and a brand (i.e., attachment) reflects the degree to which a consumer connects to the brand. Therefore, marketers are interested in how to increase consumers' attachment to a brand. In marketing practices, anthropomorphic brand design is considered as a way to establish a bond with consumers, such as adding humanlike features to a brand.

Contributing to literature about anthropomorphism and brand attachment, we demonstrate that in general anthropomorphic brand design increases consumers' brand attachment. It suggests that to a brand to build a bond with target consumers, marketers can add anthropomorphic design as an ingredient. Furthermore, we reveal a boundary condition that consumers with different attachment styles (preoccupied vs. dismissing style) tend to respond to anthropomorphic brands

in discrete ways. Specifically, preoccupied (vs. dismissing) consumers are more likely to anthropomorphize a brand and then develop attachment to the brand. It implies that compared with dismissing consumers, preoccupied consumers, such as people that have a passion for love or romance, are more likely to develop attachment to a brand. Marketers should consider using this strategy to strengthen the bond with preoccupied consumers.

References are available upon request.

## **CONSUMER BRAND TRUST IN A BRAND CRISIS: A COMPARISON BETWEEN ACCIDENTAL AND PREVENTABLE PRODUCT-HARM CRISIS**

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**Keywords:** brand crisis, consumer brand trust, product-harm crisis, trust repair

**Description:** This paper examines how two types of product-harm crises – accidental and preventable – affect consumer brand trust and how different crisis response strategies – denial, reduction-of-offensiveness, and corrective action – affect consumer brand trust after the brand crisis.

### **EXTENDED ABSTRACT**

#### **Research Question**

The objective of this study is to examine how two types of product-harm crises – accidental and preventable – affect consumer brand trust. Also, our aim is to examine how different crisis response strategies – denial, reduction-of-offensiveness, and corrective action – affect consumer brand trust after the brand crisis. We aim to compare the brand trust levels before and after the crises and crisis response strategies, and between the two crisis types.

## **Method and Data**

We conducted six experimental studies and used the automotive industry as a context for our experimental scenarios. We used online questionnaires and hired a market research agency to collect a representative sample of 600 car owners, one hundred participants for each study, in Finland. The accidental product-harm crisis scenarios (experiments 1–3) illustrated a failure in the car manufacturer’s automated assembly leading to wrongly tightened tie rod of the car, which was followed by a breakdown of the tie rod and loss of control of the car. The preventable crisis scenarios (experiments 4–6) described a car manufacturer that had knowingly manipulated emissions with an installed application. Experiments 1 and 4 included the denial response, experiments 2 and 5 the reduction-of-offensiveness, and experiments 3 and 6 the corrective action response. We analyzed the data using non-parametric tests.

## **Summary of Findings**

Our results demonstrate that both accidental and preventable product-harm crisis negatively affect consumer brand trust, but the magnitude of the effect varies depending on the crisis type. Denial negatively affects consumer brand trust in both crisis types, and our results indicate that the effects of denial depend on the crisis type. Also, reduction-of-offensiveness has a negative effect on brand trust in an accidental crisis. However, in a preventable crisis, this response strategy does not seem to have a significant effect on brand trust. Therefore, the reduction-of-offensiveness strategy seems to be rather conflicting with respect to its effects on consumer brand trust. Corrective action positively affects consumer brand trust in both crisis types, although brand trust remains below pre-crisis levels.

## **Key Contributions**

We state three key contributions. First, even though both accidental and preventable product-harm crises negatively affect consumer brand trust, post-crisis brand trust level is, however, dependent on the crisis type; brand trust has decreased significantly in both cases, but more in the preventable crisis scenario. Second, a company denying the incident damages its brand trust even further, denial having a more negative effect on brand trust in the accidental crisis compared to the preventable crisis. Reduction-of-offensiveness may be a safer crisis response compared to denial due to its only moderately negative effect on consumer brand trust in the accidental crisis. Our third key contribution is based on the findings suggesting that regardless of whether the brand crisis (product-harm crisis in this case) is accidental or preventable, corrective action is the only rational strategy out of the crisis – although it is not enough to restore consumer brand trust to the level it was before the crisis, at least not soon after the crisis. However, it is probably favorable to apply at least some of the actions from the corrective action strategy and in this way aim to repair harmed brand trust and diminish the negative effects of the crisis.

## **CSR AUTHENTICITY FOR BRAND BUILDING THROUGH BRAND VALUE CO-CREATION**

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**Keywords:** Corporate social responsibility, brand co-creation, authenticity, brand equity

**Description:** This research examines the effect of brand value co-creation on consumer perceived CSR authenticity.

### **EXTENDED ABSTRACT**

#### **Research Question**

In response to the rise of socially conscious consumers, brands have been taking a strategic approach to CSR in order to drive brand equity. Nevertheless, merely engaging in CSR is not enough to have a positive impact on the value consumers give to a brand. The success of a CSR program depends on how authentic it is perceived to be by consumers. One way to enhance the image of a brand is by engaging with consumers through co-creation (Black and Veloutsou, 2017; Foroudi et al., 2019; Kennedy and Guzmán, 2016; Veloutsou and Black, 2019). Brands co-create with consumers to make consumers feel more connected to the brand, increase value, loyalty, awareness, differentiation, and experience (Kennedy and Guzmán, 2016). In fact, 81% of consumers view brands that collaborate with consumers as more authentic and 86% say brands that co-create are more trustworthy (Wylie-Harris, 2018). In sum, co-creative brands—contrary to non-co-creative brands—are perceived as more authentic and are associated with relatively

positive behavioral intentions (Van Dijk et al., 2014). Therefore, the main objective of this research is to investigate the impact of brand value co-creation on the perceived authenticity of CSR programs for brands, which consequently influences brand equity.

### **Method and Data**

To test our hypotheses, we conducted two studies. In Study 1, an online survey was created. The target population consisted of a representative sample of the U.S. population based on gender, age, and race, which produced 410 responses. The questionnaire was based on the technology brand, Samsung, and included items measuring brand familiarity, brand usage, attitudes towards the brand, and brand value co-creation. A scenario about the brand and its CSR initiatives was presented to respondents. Respondents then answered items measuring perceived level of authenticity of the CSR initiative and overall brand equity. To increase the validity of our results, we conducted a second study using a fictitious brand instead of the well-known brand, Samsung. Participants (n= 125) were randomly assigned to one of three conditions that described the brand as either engaging in consumer-brand co-creation (n= 40), not engaging in consumer-brand co-creation (n= 43), or neutral (n= 42). Following, all participants answered a control question to check if they had understood the co-creation manipulation. Next, they answered brand value co-creation items and were then presented with a statement about the brand's CSR initiative. Finally, participants answered items measuring perceived level of authenticity and overall brand equity.

### **Summary of Findings**

The result of the analyses indicated that brand value co-creation will have a positive effect on CSR authenticity and on overall brand equity. Moreover, CSR authenticity was found to mediate the relationship between brand value co-creation and brand equity.



**Statement of Key Contributions**

This research contributes to the marketing literature and offers directions to brand managers by revealing the importance of authenticity for the effectiveness of the CSR program, and, more importantly, providing a strategy on how CSR authenticity can be enhanced. Specifically, this research demonstrates that when brand managers decide to embrace CSR, they need to be aware that merely engaging in CSR activities is not enough for a positive effect on brand equity. For the CSR program to have a positive and stronger effect in the value consumers give to the brand it needs to be perceived as authentic. Moreover, our findings indicate that the perception of authenticity can be enhanced by brand building activities such as co-creation, even when the co-creation is not within the context of CSR. Through co-creation consumers inject their personal ideals and values into the brand, allowing for a higher level of alignment with their self (Guzmán et al., 2017) and their values (Shepherd et al., 2015; Kidwell et al., 2013) leading to higher levels of perceived authenticity of the CSR program and, ultimately, brand equity.

“References are available upon request”

**DIVERGENCE IN BRAND COMMUNITY MEMBERSHIP:  
THE MULTIPLE ROLES OF SOCIAL DISTANCE & COMMITMENT**

**Abstract**

According to the traditional sociological standpoint, evaluations of a brand community are made based on the aggregation of community members as a whole. Under this perspective, brand community members are considered to be a homogenous group of prototypical consumers for a particular brand. Yet, while brand communities are socially constructed entities that can be related to several common group-level outcomes, brand community members themselves are separate individuals with differing thoughts, intentions, and behaviors. As such, we employ an individual-level perspective of brand communities and argue that members have different relationships with the brand community, and that these individual-level differences impact behavior and consumption within the brand community. Thus, the main contribution of this research is that it extends Construal Level Theory to explain individual-level differences in member relationships within the brand community to predict divergence in brand community member behaviors.

**Keywords:** brand community, psychological sense of brand community, construal level theory, social distance

### **Statement of Intended Contribution**

Marketers are increasingly interested in building and facilitating strong brand communities as both cost effective and powerful tools to support their brands (Algesheimer *et al.*, 2005). However, in order to capitalize on the beneficial outcomes associated with brand communities, it is necessary to understand the psychology behind the phenomenon of communal consumption as well as potential divergence in brand community membership. This paper answers calls for research examining the complexity of brand community membership: “Scholars have yet to fully examine these dimensions of brand community as dynamic continua or shifting mosaics, yet this is necessary if they are to understand... the visible, vibrant, and multifaceted brand communities that we encountered in the field” (McAlexander *et al.*, 2002, p. 39). In so doing, we utilize Construal Level Theory to explain divergence in individual brand community member behavior. In particular, we focus on how social distance construals vary depending on whether a brand community member has a closer relationship to the brand itself, or a closer relationship to other brand community members. In Study 1, we find that close social distance to the brand is directly related to increased brand commitment, which subsequently influences organization-oriented outcomes. In contrast, close social distance to other members is directly linked to increased community commitment, which only impacts customer-oriented outcomes. Study 2 builds on this knowledge by testing whether social distance levels can be primed to activate either brand or community related schemas, and determines how these primed conditions are related to commitment levels. A better understanding of brand community member social distance construals can provide marketing managers with an effective strategy for communicating with divergent brand community members in order to strengthen both brand and community commitment.

## **Introduction**

At its most basic level, a community is made up of a group of people and their relationships. These communities were previously assumed to be constrained by physical space, and this proximity served to facilitate communal consumption practices. In various types of communities—dating back to tribal times—members placed great importance on the communal consumption of drinks, food, gifts, and experiences as a part of their traditions, rituals, or celebrations (Muniz & O’Guinn, 2001). In contemporary culture, however, most modern communities are now largely imaginary in nature (Anderson, 1983) and tie people together based on personal interests and a sense of commonality. Hence, it is the shared consumption of a product or experience that often facilitates the formation of the community itself.

Brand communities are a legitimate and persisting form of community, and in-group members have specific interests and needs. Since prior research finds that strong brand communities provide great value to marketers and their firms (Schau, Muniz, and Arnould, 2009), it is necessary to understand the psychology behind the phenomenon of communal consumption as well as potential divergence in brand community membership. Thus, we employ an individual-level perspective of brand communities and argue that members have different relationships within the brand community, and that these individual-level differences impact their attitudes and behaviors.

## **Literature Review**

Although the concept of community has long existed and been a great focus of social science (Hummon, 1990), its conceptualization in the context of consumer behavior is much more recent. Muniz and O’Guinn (2001) were the first to formally define a brand community as “a specialized, non-geographically bound community, based on a structured set of social

relationships among admirers of a brand” (p. 412). From a sociological standpoint, conclusions about a brand community can be made based on the aggregated group of community members. Under this perspective, brand community members are all assumed to be a homogenous group of prototypical consumers for a brand. In fact, prior research claims that participation in a brand community increases members’ affection for the brand and makes them more committed, dependable, and “evangelical” consumers (Fournier *et al.*, 2000). Thus, extreme brand loyalty is most commonly attributed to brand community members and likened to the “Holy Grail” of marketing (McAlexander *et al.*, 2002). Brand community members are also thought to create value for the brand through social networking, community engagement, brand use, and impression management (Schau *et al.*, 2009). Thus, marketers are increasingly interested in building and facilitating strong brand communities as both cost effective and powerful tools to support their brands (Algesheimer *et al.*, 2005).

It is no doubt tempting to view these entities as groups of quintessential consumers that all think, feel, and act in similar ways regarding a focal brand. Yet, while brand communities are socially constructed entities that can be related to several common group-level outcomes, brand community members themselves are separate individuals with differing thoughts, intentions, and behaviors. To explore the complexity of the brand community phenomenon, we now turn to a psychological viewpoint to gain insights from the individual brand community member perspective. As such, we are interested in their psychological sense of brand community (PSBC), meaning “the degree to which an individual perceives relational bonds with other brand users” (Carlson *et al.*, 2008, p. 286). Under this conceptualization, formal membership in a brand community is not a requirement if the individual feels a shared emotional connection and

relational bonds to the brand community. In essence, if an individual feels a close connection to a brand community, then they will believe that they are a part of the brand community.

### **Conceptual Development**

A PSBC has been found to directly impact attitudinal constructs like brand commitment, and indirectly effect behaviors such as brand preference and positive word-of-mouth (Carlson *et al.*, 2008). However, considering individual-level differences in the strength of a member's relational bonds to the brand community, the positive nature of this construct can be either amplified or attenuated by how close they feel to the brand community. Therefore, we seek to investigate how varying levels of distance in member relationships within the brand community influence PSBC's effect on brand community member attitudes and behaviors.

This is consistent with Construal Level Theory (CLT) which explains how psychological distance influences the thoughts and behaviors of consumers (Trope, Liberman, & Wakslak, 2007). Psychological distance is made up of four main dimensions—temporal, hypothetical, geographic, and social distance—and determines whether primary, essential characteristics or secondary, peripheral characteristics are utilized as a basis of evaluation (Trope *et al.*, 2007; Trope & Liberman, 2010). Thus, we argue here that an individual who perceives him- or herself to be psychologically near to the brand community will exhibit a greater PSBC. This low-level construal means that they will think about their relationship with the brand community more concretely, allowing them to process the more detailed and contextualized features of their relational bonds (Trope *et al.*, 2007). Furthermore, affective value—related to moods, feelings, and attitudes—is thought to be associated with this kind of concrete processing (Metcalf & Mischel, 1999). Therefore, a greater PSBC will enable brand community members to think about their attitudes related to commitment more concretely, which serves to increase the salience or importance of these features (Freitas, Gollwitzer, & Trope, 2004). Prior empirical research

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supports the argument that PSBC positively leads to increased brand commitment (Carlson *et al.*, 2008). In this research, we suggest that greater PSBC will also be related to increased community commitment. Formally:

H1a: *PSBC will be positively associated with increased brand commitment.*

H1b: *PSBC will be positively associated with increased community commitment.*

While brand community members feel a PSBC, their specific type of relational bond to the brand community may be different. According to the Brand Community Triad, two types of relationships exist within the larger brand community: (1.) the relationship between a member and the brand, and (2.) the relationship between a member and other members (see McAlexander *et al.*, 2002; Veloutsou & Moutinho, 2009). This model emphasizes that members can have a specific connection to the brand that is distinct from their ties to the other members of the community, and the strength of these two types of relationships will likely vary. For instance, a member may have a closer relationship to the brand itself and a more distant relationship to other brand community members, or vice versa. Therefore, our main argument in this paper is that divergence in brand community member attitudes and behavior is largely dependent on the oppositional direction and varying strength of both types of relational bonds.

This is consistent with CLT and supported by the social distance dimension of psychological distance. Social distance states that the more similar [dissimilar] someone is to oneself, the more socially close [distant] they typically seem (Trope *et al.*, 2007). Therefore, a brand community member may feel socially close to the brand due to their strong relational ties and shared emotional connections to the brand itself, which promotes feelings of greater similarity to the brand. At the same time, this brand community member may also feel more socially distant from other members of the brand community because they have weaker relational ties or fewer shared emotional connections to these members. As such, this brand

community member will think concretely about the brand and abstractly about the other members of the brand community, which subsequently influences their attitudes and behaviors within the context of the brand community (Ruane & Wallace, 2015). A member whose relationships within the brand community exhibit the opposite valence would experience the reverse effect. Hence:

*H2<sub>a</sub>: Close social distance to the brand will positively moderate the relationship between PSBC and brand commitment, such that close social distance to the brand will strengthen the positive relationship between PSBC and brand commitment.*

*H2<sub>b</sub>: Close social distance to other members will positively moderate the relationship between PSBC and community commitment, such that close social distance to other members will strengthen the positive relationship between PSBC and community commitment.*

Finally, we suggest that brand and community commitment will be related to different types of voluntary extra-role behaviors. There are three main forms of consumer citizenship behaviors (CCB): recommendations, providing feedback, and helping customers (Groth, 2005). Recommendations include actions like referring a peer to the organization, providing feedback comprises behaviors like informing the organization about the great service received by an individual employee, and helping customers entails assisting other customers with their shopping (Groth, 2005). Here, we argue that brand commitment will be linked to organization-directed CCB (i.e., recommendations and providing feedback), while community commitment will be associated with consumer-oriented CCB (i.e., helping customers). Curth, Uhrich, and Benkenstein (2014) find that commitment to fellow customers is positively associated with the consumer-oriented CCB of helping behavior; however, they do not find support for its effect on organization-directed CCBs. Alternatively, when commitment to the service provider is also considered, the authors find significance for its effect on organization-directed CCBs. Within the brand community literature, brand commitment is found to mediate the positive relationship



between PSBC and the extra-role behavior, word-of-mouth promotion (Carlson *et al.*, 2008). Thus, we demonstrate how brand commitment has a positive relationship to additional organization-directed CCB like recommendations and providing feedback. Furthermore, we suggest that community commitment will likewise influence consumer-oriented CCB like helping customers. Formally:

H3<sub>a</sub>: *Brand commitment will be positively associated with increased brand community member recommendations.*

H3<sub>b</sub>: *Brand commitment will be positively associated with brand community members providing feedback.*

H3<sub>c</sub>: *Community commitment will be positively associated with brand community members helping other brand users.*

## **Study One**

### ***Study 1 Methods***

In order to test our hypotheses, Study 1 surveyed 79 brand community members located in the United States. The online survey was administered through the online participant database Amazon Mechanical Turk (MTurk). In this study, we are interested in capturing the thoughts and feelings of brand community members across a vast collection of different brand communities. Therefore, MTurk was selected because it has been found to provide a heterogeneous and reliable sample (Goodman *et al.*, 2013) that offers high external validity to the analyses (Goodman and Irmak, 2013).

*Procedures.* Participants were first presented with the definition of a brand community, given a few examples of prominent brand communities, and then asked to provide the name of a brand community to which they consider themselves to be members. We inserted the brand name that each participant self-selected into all of the subsequent questions in the survey. Then,

participants responded to a series of attitudinal and behavioral items related to their self-selected brand and answered demographics questions.

*Measures.* The independent variable in our model was PSBC, and this was measured on a 6-item, 7-point Likert scale ( $\alpha = .955$ ; Carlson *et al.*, 2008). Social distance was measured with two different targets of evaluation: social distance to the brand ( $SD_{\text{brand}}$ ;  $\alpha = .866$ ) and social distance to other members ( $SD_{\text{members}}$ ;  $\alpha = .899$ ). These scales were adapted from Liviatan and colleagues (2008), who measured social distance with an aggregate of a 2-item, 9-point Likert scale and 1-item from the Others in Self Scale (Aron, Aron, & Smollan, 1992). Brand commitment is a mediator in our model, and it was measured on a 4-item, 9-point Likert scale ( $\alpha = .930$ ; Eisingerich & Rubera, 2010). Similarly, community commitment was measured on a 5-item, 9-point Likert scale ( $\alpha = .966$ ; Zhou, Zhang, Su, & Zhou, 2012). Lastly, we collected three different types of CCB, each measured on a 4-item, 7-point Likert scale: recommendations ( $\alpha = .902$ ), providing feedback ( $\alpha = .946$ ), and helping brand users ( $\alpha = .926$ ; Groth, 2005).

### ***Study 1 Results***

*Sample and Descriptive Statistics.* The average age of participants was 34.3 years, and approximately 54% were female. The ethnic make-up of the sample was as follows: 58.2% European American/White; 12.7% African American/Black; 12.6% Latino/Hispanic; 10.1% Asian American/Asian; and, 6.4% Other.

*Validity and Reliability.* The measurement and structural model were examined by running the PLS Algorithm in SmartPLS 3.3.2 with the substantive constructs—PSBC,  $SD_{\text{brand}}$ ,  $SD_{\text{members}}$ , brand commitment, community commitment, recommendations, providing feedback, and helping brand users. The Cronbach's alphas and standardized regression weights all exceeded .70. The composite reliabilities were above .70 which illustrates reliability, and all of

the average variance extracted (AVE) exceeded .50 which demonstrates convergent validity (Hair, Anderson, Babin, & Black, 2010). Finally, to assess discriminant validity, we determined that the square roots of the AVEs for the eight constructs were higher than their interconstruct correlations (Fornell & Larcker, 1981).

*Hypothesis Testing.* A partial least square structural equation model (PLS-SEM) in SmartPLS 3.3.2 was utilized. PLS-SEM is particularly appropriate for this analysis as it is ideal for the evaluation of a complex structural model, particularly when sample sizes are small (Grégoire, Laufer, & Tripp, 2010). Table 1 & Figure 1: Panel A provide the results of the structural model based on two-sided tests, using 500 bootstrapped samples to assess the significance of the parameters.

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We find positive and direct effects of PSBC on brand commitment ( $\beta = .49, p < .001$ ) and community commitment ( $\beta = .61, p < .001$ ), supporting H1<sub>a-b</sub>. This means that members with a strong PSBC exhibit increased brand and community commitment. Surprisingly, and counter to H2<sub>a-b</sub>, the interactions between PSBC and SD<sub>brand</sub> ( $\beta = -.02, p = .80$ ), as well as PSBC and SD<sub>members</sub> ( $\beta = -.04, p = .59$ ), are non-significant. It is interesting to note, however, that there is a significant, positive direct effect of SD<sub>brand</sub> on brand commitment ( $\beta = .33, p = .002$ ) and SD<sub>members</sub> on community commitment ( $\beta = .30, p = .003$ ). This indicates that social distance is even more important than we had initially theorized as it *directly* influences commitment levels. Consistent with H3<sub>a-b</sub>, we find significant and positive effects of brand commitment on the likelihood of making recommendations ( $\beta = .51, p < .001$ ) and providing feedback for the brand

( $\beta = .55$ ,  $p < .001$ ). Furthermore, we find a significant and positive effect of community commitment on helping other brand users ( $\beta = .70$ ,  $p < .001$ ), supporting H3c. Therefore, brand community members that feel close to the brand are found to have higher levels of brand commitment, leading to a stronger likelihood of making brand recommendations and providing feedback for the brand. Conversely, those that feel close to other members of the brand community possess greater community commitment, which is associated with increased intentions to help other brand users.

### **Study Two**

In our first study, we measured existing levels of  $SD_{\text{brand}}$  and  $SD_{\text{members}}$ . In Study 2, we seek to build on this by testing whether social distance levels can be primed to activate either brand or community related schemas. Essentially, we are interested in identifying if any brand community member, regardless of whether they actually feel closer to the brand or closer to the other members of the community, can be primed to exhibit momentary implicit attitudes and behaviors in favor of either brand or community commitment.

#### ***Study 2 Methods***

Study 2 surveyed 226 American respondents recruited by undergraduate students. Since utilizing student recruiters was necessary in order to gain access to members of a specific local brand community, we followed strict guidelines regarding research utilizing student-recruited sampling techniques (see Wheeler *et al.*, 2014).

*Procedures.* First, participants indicated their PSBC regarding the focal brand community. Next, they were randomly assigned to one of three conditions: close  $SD_{\text{brand}}$  prime, close  $SD_{\text{members}}$  prime, or control group. Projective manipulation writing tasks contextually activate the attachment system by asking participants to imagine attachment related hypothetical

scenarios (Campbell & Marchall, 2011), and have been shown to alter momentary implicit attitudes and behaviors (DeMarree *et al.*, 2005). We adapted our projective social distance writing task from DeMarree and colleagues (2005) to prime brand community members to feel closer to the brand [closer to the community] by asking them to describe the ultimate St. Louis Cardinals fan [most social St. Louis Cardinals fan]. After completing the projective writing task, participants responded to items for brand commitment, community commitment, and demographics.

*Measures.* As stated above, our moderators were  $SD_{\text{brand}}$  (prime [1] vs. control group [0]) and  $SD_{\text{members}}$  (prime [1] vs. control group [0]). All other substantive variables in our model utilized the same measures as in Study 1: PSBC ( $\alpha = .924$ ; Carlson *et al.*, 2008), brand commitment ( $\alpha = .852$ ; Eisingerich & Rubera, 2010), and community commitment ( $\alpha = .885$ ; Zhou *et al.*, 2012). We also included the 18-item Self-Monitoring Scale (Snyder & Gangestad, 1986), study duration, and education as control variables.

## **Study 2 Results**

*Sample and Descriptive Statistics.* The average age of participants was 35.3 years, and approximately 48% were female. The ethnic make-up of the sample was as follows: 78.3% European American/White; 1.8% African American/Black; 2.7% Latino/Hispanic; 12.4% Asian American/Asian; and, 4.8% Other.

*Manipulation Check.* To check for the proper manipulations of the projective social distance primes, respondents were asked to identify which essay prompt they had previously written about in the beginning of the survey: “A Day in the Life of the Ultimate St. Louis Cardinals Fan” (1), “A Day in the Life of the Most Social St. Louis Cardinals Fan” (2), or “A Typical Day in My Life” (3). A chi-square test revealed that participants successfully perceived

the manipulation of the writing prompt to which they had been assigned,  $\chi^2(1, N=226) = 214.17$ ,  $p < .001$ .

*Hypothesis Testing.* In order to test H2<sub>a-b</sub>, we conducted two moderated regression analyses using SPSS 24 and the PROCESS Model 1 with 5,000 bootstrapped samples. In the first model we regressed brand commitment on PSBC, primed SD<sub>brand</sub>, and their interaction. Supporting H2<sub>a</sub>, we find a significant, positive effect of the interaction between PSBC and primed SD<sub>brand</sub> on brand commitment ( $b = .41$ ;  $SE = .21$ ;  $p = .05$ ;  $CI: .0004, .82$ ). Hence, those who were primed for SD<sub>brand</sub> and had a higher PSBC reported greater brand commitment levels as compared with the control group. Upon examination of the interaction plot, we see a uniform flat trend across levels of PSBC for the control group, but a positive conditional effect of SD<sub>brand</sub> across levels of PSBC ( $b = .38$ ;  $SE = .18$ ;  $p = .03$ ;  $CI: .03, .73$ ; Figure 1: Panel B).

In the second model, we regressed community commitment on PSBC, primed SD<sub>members</sub>, and their interaction. As in Study 1, we do not support H2<sub>b</sub> as the interaction between PSBC and primed SD<sub>members</sub> on community commitment is non-significant ( $b = -.02$ ;  $SE = .14$ ;  $p = .92$ ;  $CI: -.30, .27$ ). Inspection of the interaction plot demonstrates a nearly identical pattern of response as compared with Study 1. Here, both the primed SD<sub>members</sub> group and the control group exhibit positive trends across levels of PSBC, with the SD<sub>members</sub> group reporting slightly higher brand commitment scores. After careful consideration, we believe that it makes sense that those with a higher PSBC can be triggered to amplify their momentary attitudes towards the brand, but not the community. Evaluations of how close someone is to the brand are much more difficult to quantify, therefore it is easier to manipulate their perception of close SD<sub>brand</sub> and greater brand commitment. In contrast, evaluations of how close someone is to the other members of the brand community is far easier to enumerate (e.g., thinking about how many people they know and

associate with in the brand community, etc.) Hence, manipulating a member's perceptions of  $SD_{members}$  is much more difficult to do. While they may be able to imagine "A Day in the Life of the Most Social St. Louis Cardinals Fan", they are not as likely to transfer these associations to themselves if these personal connections with other brand community members do not already exist.

### **General Discussion**

In summary, a brand community member will experience a PSBC based on their shared emotional connections with the brand community (Carlson *et al.*, 2008), regardless of their unique type of relational bonds. Nevertheless, while the shared PSBC serves to bond brand community members together, variance in the type and salience of their relationships within the brand community—i.e.,  $SD_{brand}$  vs.  $SD_{members}$ —bring to light differences between members. Thus, this framework distinguishes that certain types of brand community members can think, feel, and behave in different ways from each other within the same brand community, depending on the oppositional direction and varying strength of both types of relational bonds.

This research offers several important theoretical and managerial contributions. Regarding theoretical implications, this work extends CLT to the context of brand communities and demonstrates how social distance has both a direct effect and a moderating relationship with PSBC on brand and community commitment. Furthermore, this research discovers that members with close  $SD_{brand}$  have different attitudes and behaviors than those with a close  $SD_{members}$ , and vice versa. These results provide the first evidence for the notion of divergence in brand community membership. A major managerial implication of this work is that we discover how brand community members can be primed to feel a closer  $SD_{brand}$ , which interacts with PSBC to generate increased brand commitment. Therefore, by altering their marketing communications

and priming brand community members to think about the “ultimate [brand] fan”, marketing managers can increase perceptions of close  $SD_{brand}$ , enhance brand commitment levels, and increase the likelihood of specific organization-oriented outcomes. We hope that our research can begin to illuminate the multiple roles of social distance, commitment, and how they impact divergence in brand community membership.



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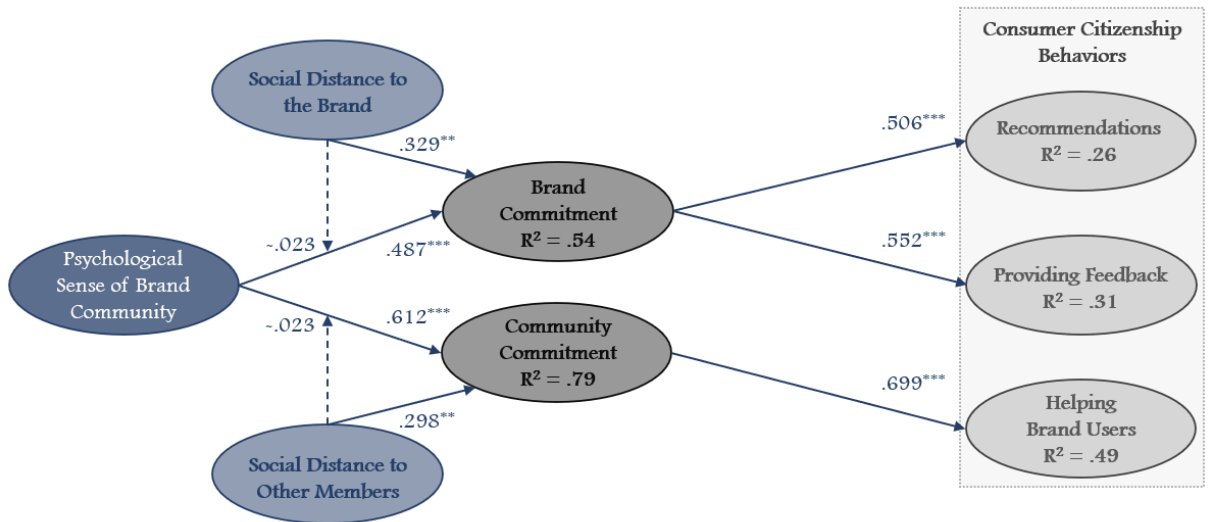
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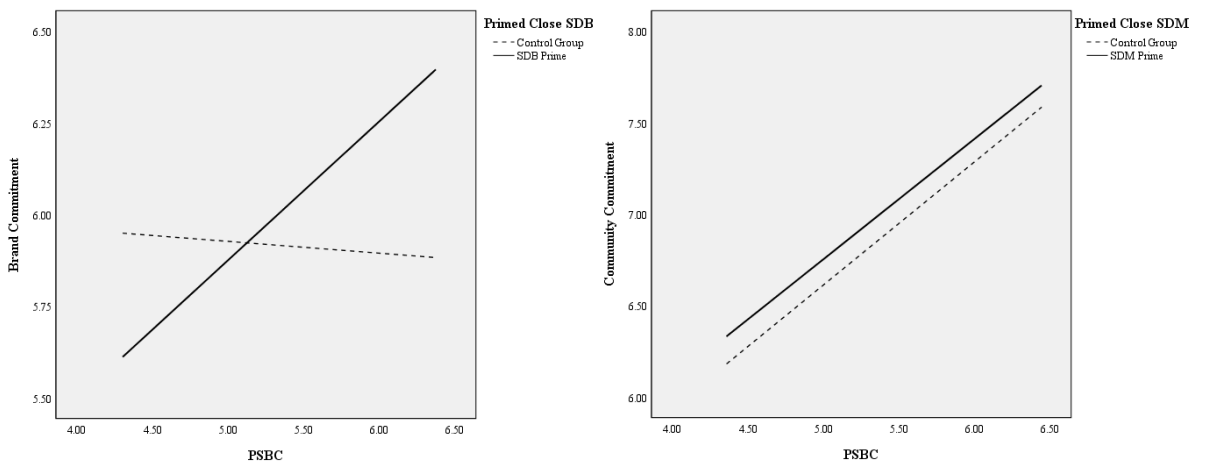
**Figures**

**Figure 1. Conceptual Model & Study Results**

*Panel A: Study 1 PLS-SEM Results*



*Panel B: Study 2 Interaction Plots*



## Tables

**Table 1. Study 1 PLS-SEM Results**

<i>Relationship</i>	<i>Path Coefficient</i>	<i>t-value</i>	<i>p-value</i>
PSBC → Brand Commitment	.49	5.00	<.001***
PSBC → Community Commitment	.61	5.76	<.001***
SD <sub>brand</sub> → Brand Commitment	.33	3.06	.002**
PSBC*SD <sub>brand</sub> → Brand Commitment	-.02	.26	.795
SD <sub>members</sub> → Community Commitment	.30	3.04	.003**
PSBC* SD <sub>members</sub> → Community Commitment	-.02	.53	.594
Brand Commitment → Recommendations	.51	3.86	<.001***
Brand Commitment → Providing Feedback	.55	4.68	<.001***
Community Commitment → Helping Brand Users	.70	7.70	<.001***

*Notes: Pearson Correlations (2-Tailed), \*p<.05, \*\*p<.01, \*\*\*p<.001. Psychological sense of brand community (PSBC), social distance to the brand (SD<sub>brand</sub>), social distance to other members (SD<sub>members</sub>).*

**TITLE: HOW HAVE ONLINE CUSTOMER REVIEWS TRANSFORMED THE ROLE OF BRANDS AS SIGNALS OF INTANGIBLE ATTRIBUTES?**

**Giulia Crestini, University of Zurich**

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**Keywords:** OCR, Brand, asymmetry reduction, signaling theory, search and experience goods

**Description:** This conceptual paper aims to unveil the process underpinning the brands' role shift due to the arrival of OCRs in the marketplace.

## **EXTENDED ABSTRACT**

### **Research Question**

This paper aims at providing a better understanding of the changing role of brands due to the arrival of online customer reviews (OCRs) in the online marketplace. Secondly, it seeks to unveil the specific factors underlying this change, which are able to influence the customer decisional-making process.

Based on the literature on information economics and brand signaling theory, it will outline how and why there is an urgent need to rethink the logics and the role of brands as intangible attributes signals for search and experience goods. As signaling theory teaches, brands are among the best quality signals in the market, together with prices and ads. To communicate the superiority of their products, companies typically use brands to justify premium prices and to differentiate from the competition. Understanding which influences OCRs have on the said intangible attribute signal, as well as, how they influence different product categories and in which ways, becomes therefore vital to better tackle digital

transformation. The consequent research question follow:

*How have online customer reviews impacted the role of brands as information asymmetry-reducing signals?*

*How do online customer reviews presumably extend the role of brands for different product categories?*

### **Summary of Findings**

This conceptual discussion of the shift in the role of brands as asymmetry reducer, resulting from the impact of OCRs, shows that OCRs' impact is more important for search goods than for experience goods. More precisely, for search goods the existence of the role of brands as an intangible attribute signal, as it is known today, is in real danger. For these products, it is necessary to rethink the role of brands in view of the facts illustrated in the paper, which affected the entire customer decision-making process. Indeed, this latter is not led by brands as intangible attributes signals and asymmetry reducer anymore, but rather form the combination of brands and online reviews. To what extent and which are the factors that are involved in this adapted decisional-making process, will be discussed in the paper. Extending and developing the existing literature on brand signaling theory, the paper aims to provide useful insights to challenge future research to conduct in-depth analysis and to develop constructive guidelines on how to assess new and more suitable brand strategies.

### **Statement of Key Contributions**

Brands have always played a role in signaling product quality and other intangible attributes to consumers. Due to OCRs' informational provision on the market, the role of brands as intangible attribute signals needs to evolve and adapt accordingly. However, information economics literature has not yet provided an exhaustive logical explanation for the underlying process that pushes brands' role to adapt to this change. Specifically, the changing process through which brands functioned as asymmetry reducer has different implications for diverse product categories. Thus, the distinctive effects that this change produces on the informational intrinsic differences of product types, i.e. search and experience products, will emerge in

this paper. The contribution of this research consists in the explanation of how OCRs as informational influences act on customers' decision-making process, by partially replacing the role of brands as intangible attributes signals. Basing on this concept, the paper will elucidate why and how these influences act stronger on search products. A conceptual model clarifies the developments of the brands' role from a marketplace without OCRs, towards a marketplace after the advent of OCRs.

This paper aims to contribute to the development of brand signaling theory, adding new insights on the brands' role as intangible attributes signals, and aims to provide new critical perspective for the design of future brand strategies.

## **MINDFUL BRAND**

*Ellen Campos Sousa, Florida International University*

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**Keywords:** mindful brand, scale development, mindfulness, brand humanizing, consumer-brand connection

**Description:** This research offers a concise definition and the evaluative measures of a mindful brand from a consumer's perspective.

## **EXTENDED ABSTRACT**

### **Research Question**

As the number of individuals seeking mindful elements in brands continuous to rise, consumers are looking for mindful connection with brands to enhance their overall well-being. Brands are also responding to consumers' increased awareness and sensitivity to mindfulness by incorporating mindful elements. However, the extant research lacks a clear conceptualization of a mindful brand from a consumer's perspective, as well as the evaluative criteria of a mindful brand. This research aims to fill this gap by offering a concise definition and the evaluative measures of a mindful brand. Thus, this research aims to answer these questions: How would a mindful brand be defined? How could a mindful brand be evaluated from a consumer perspective?

## **Method and Data**

The first part of this research (Studies 1a and 2a) focuses on providing a formal definition of mindful brand. The second part of this research focuses on developing and validating a five-dimension MBS. Five studies (Studies 1-5) were conducted using a mixed-methods approach (expert judges, surveys, and online studies) to develop and validate MBS. First, two qualitative studies (Studies 1b and 2b) focus on a mindful brand item generation. Next, three studies (Studies 3, 4, and 5) focus on the MBS development mainly following Churchill (1979), and also considering some precepts of Warren et al. (2019), Price et al. (2018), and Aaker (1997). In Study 3, in order to refine the scale, thirteen marketing professors—who are experts in marketing and consumption—evaluated the proposed scale items generated from studies 1 and 2. Then, to purify the measure, Study 4 was conducted with American adults and Exploratory and Confirmatory Factorial Analysis were performed. After that, study 5 was conducted with American adults as well. A confirmatory factor analysis (CFA) was executed to assure the good-fit of the scale, and we tested the MBS relationship to brand characteristics within a nomological network. The final scale was confirmed with 31 variables and five dimensions.

## **Summary of Findings**

This research suggests a definition for a mindful brand. In addition to this conceptualization, we also propose and validate a mindful brand scale. This scale can be used as a tool to understand whether and how consumers perceive a brand as a mindful brand. Five studies were conducted to develop the scale, and the final model achieved a statistical good-fit with 31 traits grouped in 5 dimensions: values, environment, society, employees, and consumer/product/service.



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## **Key Contributions**

This research intends to initiate a dialogue between scholars and practitioners on the importance of mindful brands for consumer and societal well-being. We present novel theoretical contributions to two main areas: mindfulness (Bahl et al. 2016; Brunel and Dong 2006; Ndubisi 2012) and branding literature (Aggarwal and McGill 2012; Fournier 1998; MacInnis and Folkes 2017). This research not only conceptualizes and provides a clear definition of a mindful brand, but it also develops the MBS. The scale can be used to help brands build stronger connections with consumers.

Mindfulness has turned into a booming industry of 4 billion dollars (Purser 2017), and brands are now incorporating mindful elements into their products. However, marketers and scholars are unclear about what constitutes a mindful brand. This research not only provides a *clear definition* of a mindful brand but also offer a *clear roadmap* for managers to build and manage mindful brands using the five dimensions of MBS. Specifically, MBS will allow managers to understand which dimensions of MBS are of greater importance in integrating mindful brand elements into their product/service by assessing where brands excel and where brands lack across five mindful dimensions. MBS insights can be used to enhance managerial decision making.

*References are available upon request.*



## **NETWORK EMBEDDING FOR ONLINE BRAND EXTENSIONS**

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**Keywords:** Brand Extensions, Online Shopping, Perception of Fitness, Network Embedding, Deep Learning.

**Description:** We propose a novel method based on deep representation learning to measure consumers' perceived fitness between brands and product categories in online brand extensions.

### **EXTENDED ABSTRACT**

#### **Research Question**

Brand extension is an effective branding strategy that helps brands get involved in new categories by launching new products. In literature, consumers' perceived fitness between the brand and its extension product category is the most important factor in determining the success of brand extensions.

Currently, researchers and marketers use surveys to obtain the fitness by asking respondents how "similar" or "relevant" they think the brand and the category are. This approach can only be used to test some already-proposed extensions on a certain group of respondents, but cannot be used to discover potential opportunities for new brand extensions, which is vital for brands to survive in the rapidly growing online shopping market.

With the help of big data technology, unprecedentedly rich consumer behaviors can be documented during online shopping. Since shopping behaviors suggest consumers'

preference for different brands and categories, how to measure the fitness through these behaviors becomes an interesting and important research question. It's very promising because a measurement based on historical shopping behaviors can be applied to discover, not merely to test, potential brand extension opportunities.

### **Method and Data**

In this study, we propose Extension Network Distance (END) based on the network embedding algorithm to measure consumers' fitness between brands and categories. Specifically, network embedding is a state-of-the-art algorithm from deep representation learning. Given a network with nodes and edges, the algorithm can generate representations for the nodes (i.e., for each node, it assigns a dense vector to represent it) by maximizing the likelihood of preserving the neighborhoods of each node in the network. Here, the nodes of our network are the brands and the categories, and the edges are customers' online page jumps from one node to another. Given a brand extension, its END is computed by the Euclidean distance between the representations of the brand and its target product category. Also, we design measurements for the strength and the diversity of brands in online scenarios. As for the measurement of brand extension success, while previous works use consumers' mental evaluation of a brand extension, we employ the real economic consequence of a brand extension, that is the market share obtained in the extension category, to denote brand extension success. We run regressions to verify the effectiveness of the proposed measurements through a real-life dataset.

### **Summary of Findings**

We use regressions to empirically test the effects of the factors on the success of online brand extensions. First, we estimate a main-effects model M1. It contains the direct

effects of success factors on extension success. Second, we introduce moderating effects in model M2. Two significant moderating effects are identified respectively in M2a and M2b. To get robust conclusions, all models are tested using four different metrics of brand extension success as the dependent variable. We decentralize and standardize the data before regressions.

The regression results suggest that END has a significant negative influence on the success of online brand extension. Its moderating role in the effect of the parent brand's strength is also observed. The effects of the parent brand's diversity meet our expectations. It has a significant negative influence on brand extension success and plays a moderating role on the effect of END. These conclusions are robust with different metrics for brand extension success. The results remain unchanged no matter we use a perception-related metric like the average rating from the buyers of the extension products or an economic-related metric like the market share gained in the extension category.

### **Statement of Key Contributions**

The contributions of this study are twofold. First, we propose Extension Network Distance, a new measure of fit in online shopping, based on a state-of-the-art algorithm from deep representation learning. Compared to traditional methods like surveying, this measure can be applied to discover, not merely to test, potential brand extension opportunities. Second, the financial implications or the economic consequences of brand extensions are much more relevant measures of brand extension success to marketers in practice. In this research, we fill this knowledge gap by employing the obtained market share of the extension category as the measure of brand extension success.

We tested the effect of several determinants of brand extension success via a real-life online shopping dataset. Their moderating roles are also examined. The results are in line

with the findings in previous works, which demonstrates the validity of our proposed methods. Four market-based metrics of brand extension success are used to demonstrate the robustness of our conclusions.

## **NOVEL PARTNERSHIP BETWEEN BRANDS AND “EXTREME” CUSTOMERS**

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**Keywords:** customer engagement, interpersonal communication, sustainable relationship, customer experience management, customer relationship management

**Description:** This paper explores how brands can build up sustainable relationships with their customers, and finally demonstrates the importance of interpersonal communication in sustaining partnerships with extremely engaged customers.

### **EXTENDED ABSTRACT**

#### **Research Question**

This paper aims to demonstrate how brands can build sustainable and strong relationships with customers in this digital era. It has been suggested that the importance of relational experience is increasing due to the expansion of digital social networks (e.g. Schmitt, Brakus, and Zarantonello 2015). Digital transformation has minimized customer purchase decision effort and sometimes leads to spurious loyalty as defined by Dick and Basu (1994). Schmitt (2012) demonstrated a consumer-psychology model of brands which does not focus on brand outcomes (such as brand choice, purchase, or loyalty), but rather on the underlying psychological constructs and processes that contribute to such outcomes. This

model, however, has not been sufficiently empirically verified. Therefore, we shed light on customers who were hypothesized to be in the deepest levels of engagement according to this model (Schmitt, 2012). We name them “extreme” customers, which not only signifies their loyalty to the brands, but also the strength of the mutual tie. We examine the research questions: What is the turning point from general customer to extreme customer? What value do the extreme customers receive to sustain their engagement with the brands?

### **Method and Data**

This research consists of three studies in different categories of retail brands. To answer the research questions, we recruited customers who showed repeat patronage and plural social engagement features (Schmitt, 2012), then collected qualitative data through one-to-one semi-structured interviews. In study 1, to investigate these customers, we received help from luxury companies in identifying appropriate respondents. We continued our interviews with an increasing number of participants using snowball sampling until five respondents were chosen. We deemed this to be theoretical saturation. In study 2, we interviewed 15 Apple customers who belong to the Apple Distinguished Educator (ADE) program, a user community centered on education. We aimed to study the effects of the brand community on the engagement level. In study 3, we selected MUJI as a case in the relatively low-involvement category compared to the first two studies. Despite the category, we found extreme customers and recruited three participants. To structurally understand the interaction between the brands and their extreme customers, the data were analyzed using the Grounded Theory Approach (GTA) (Glaser and Strauss, 1967). Through



the processes of open, axial, and selective coding, we extracted categories which converged into the “extreme engagement” in each study and drew our conclusions.

### **Summary of Findings**

There was no specific turning point in the general customers becoming extreme customers. We did not expect this result. One condition of their strong engagement was that their personal goals are satisfied by the brand’s mission. As a result, this novel partnership is the result of a long-term process in which the brand and the customer are deeply engaged with each other through a process of mutual confirmation of the values that both parties hold. That is to say, the brand does not unilaterally imprint its philosophy on the customer. The ability to actualize one’s ideal self is of greatest value to extreme customers. Such long-term interpersonal communication was observed in all three of our studies, which include different brand types. Surprisingly, the brand and its extreme customers occasionally constructively criticize each other. Furthermore, such customers sometimes behave as brand owners with a sense of responsibility and pride. It was also found that the brands had positioned themselves to find potential partners matching their brand mission via in-person communication. In conclusion, we found that only interpersonal communication could foster sustainable partnerships between brands and their customers.

### **Statement of Key Contributions –**

This study contributes to the fields of customer relationship management and customer experience management research in line with customer lifetime value for firms and

perceived value for customers as defined by Kumar and Reinartz (2016). Previous studies revealed that brand experience differs from motivational and affective concepts (Fournier and Eckhardt, 2019), and it is a result of a series of interactions between the brand and its consumers (Jiang, Luk, and Cardinali, 2018). However, the depth and sustainability of the relationships have not been sufficiently argued, therefore, this study examines these perspectives and finally demonstrates a deep sustainable partnership. While Siebert, Gopaldas, Lindridge, and Simo (2020) proposed a new process that sustains the customer journey by providing an exciting involvement spiral, we found that it can be achieved through interpersonal communication. As a managerial implication, we suggest an effective way to align a brand's mission to include its customer's goals. When a firm's brand mission provides solutions to its customers' problems, they will comprehend it through their experiences, and will actively engage with the brand. Importantly, such a process enhances not only customer engagement but also brand value, consequently, it can lead to a sustainable partnership.

References are available upon request.

**PREDICTING THE RELATIONSHIPS BETWEEN NARRATIVE  
TRANSPORTATION, CONSUMER BRAND EXPERIENCE, LOVE, AND  
LOYALTY IN VIDEO STORYTELLING ADVERTISING**

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**Keywords:** Brand Experience, Brand Love, Brand Loyalty, Narrative Transportation, Video  
Storytelling Advertising

**Description:** This study examined how consumers respond to a professionally-produced  
narrative video advertising campaign by measuring their brand experience, love, and loyalty.

**EXTENDED ABSTRACT**

**Research Questions and Hypotheses**

To empirically examine the relationships between the level of narrative transportation in a  
storytelling video ad and subsequent branding outcomes (as measured by brand experience,  
brand love, brand loyalty) while considering the moderating role of product type, we propose the  
following four research hypotheses and with several sub-hypotheses:

RH1: The level of narrative transportation positively predicts consumer brand experience.

RH1-1: A high level of narrative transportation will lead to higher brand sensory experience.

RH1-2: A high level of narrative transportation will lead to higher brand intellectual experience.

RH1-3: A high level of narrative transportation will lead to higher brand behavioral experience.

RH2: Brand experience positively predicts consumer brand love.

RH2-1: Consumer brand sensory experience positively predicts their brand love.

RH2-2: Consumer brand intellectual experience positively predicts their brand love.

RH2-3: Consumer brand behavioral experience positively predicts their brand love.

RH3: Brand love positively predicts consumer brand loyalty.

RH3-1: Consumer brand love positively predicts their attitudinal brand loyalty.

RH3-2: Consumer brand love positively predicts their behavioral brand loyalty.

RH4: The effects of narrative transportation on brand experience, love, and loyalty are expected to vary between experience and search products.

### **Method and Data**

To provide empirical data to answer these research hypotheses above, we employed a post-test only experiment design. Brand storytelling advertising effects were most often studied using an experimental method to examine post-exposure effects (Chiu et al., 2012; Lien & Chen, 2013).

To increase the external validity of our study, we relied on two professionally-produced video storytelling advertising campaigns as our stimuli. We used the Dollar Shaver Club campaign for

a low narrative transportation condition, while the emotionally-charged Extra Gum campaign was used to elicit high narrative transportation reactions.

### **Instrumentation**

Three-item 5-point Likert statements were adapted from Chiu et al. (2012) and Green and Brock (2000) to measure the level of narrative transportation ( $\alpha = .82$ ). Brand experience variable (Huang, 2017) and included to measure the following sub-dimensions: 3-item brand sensory experience ( $\alpha = .84$ ), 3-item brand intellectual experience ( $\alpha = .89$ ), 3-item brand behavioral experience ( $\alpha = .78$ ). Four Likert statements were used to measure brand love ( $\alpha = .89$ ), 2-item for behavioral brand loyalty ( $\alpha = .85$ ), and 2-item for attitudinal brand loyalty ( $\alpha = .89$ ). All study constructs have satisfactory Cronbach alpha coefficients of .70 (Nunnally, 1978). Most CR statistics range from .68 to .90 and generally exceed the cutoff criteria of .70 to ensure acceptable reliability (Fornell & Lacker, 1981).

### **Summary of Findings**

We employed the maximum likelihood extraction with Promax rotation method. Two multiple-group confirmatory factor analyses found that no statistically significant differences in the factor loadings ( $\chi^2 = 35.61$ ,  $df = 38$ ,  $p > .05$ ). Model fit statistics for the combined model (Chiu et al., 2012) are acceptable ( $\chi^2 = 1071.58$ ,  $df = 486$ , comparative fit index [CFI] = .82; goodness-of-fit index [GFI] = .70; adjusted goodness-of-fit index [AGFI] = .61; root mean square error of approximation [RMSEA] = .07).

The model fit statistics in our structural model found an acceptable fit to the collected data ( $\chi^2 = 78.80$ ,  $df = 46$ , CFI = .96; GFI = .92; AGFI = .85; RMSEA = .056). The majority of

our hypothesized relationships were statistically significant, except for the relationship between brand behavioural experience and brand love. Overall, narrative transportation explains 42% of variance in brand sensory experience, 20% of variance in brand intellectual experience, and 25% of variance in brand behavioural experience. Brand experience dimensions in total explain 36% variance in brand love, while brand love accounts for 42% of variance in behavioural brand loyalty, and 35% of variance in attitudinal brand loyalty. The lack of moderation effect of the product type as a moderator is also confirmed.

### **Statement of Key Contributions**

One of the major contributions of this study is to support the effects of narrative transportation after video storytelling advertising exposure on favorable branding outcomes. This study supports the positive effects of ad-elicited narrative transportation on three brand experience outcomes regardless of different product types. This study helps advertising professionals to confirm that, as a creative execution, narrative transportation is able to stimulate consumers' mental activities (Escalas, 2004) through transporting consumers to enter the story world by leaving their real world behind and to experience the fantastical world (Phillips & McQuarrie, 2010).

**References are available upon request.**

**TERROIR CO-BRAND INFLUENCE ON THE MARKETING VALUE OF OAKVILLE  
LUXURY WINES: A MIXED METHODS STUDY**

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Keywords: ingredient brands, co-brands, scarcity, terroir, luxury goods, mixed-methods research

This mixed-methods research investigates the influence and value of terroir ingredient co-brands.

**EXTENDED ABSTRACT**

This study aims to enhance our understanding of the value of site-specific terroir brands in the context of supply-side scarcity, scarcity signaling, and consumer demand. This inquiry uses an explanatory sequential mixed-methods research design, relying on both quantitative and qualitative data. Study 1 tests the difference in the price and quality of terroir co-branded versus non-branded wines within a common protected region.

Study 2 uses semi-structured interviews to identify underlying themes and mechanisms that explain the findings from the first quantitative study. Study 1 finds that terroir co-branded wines received a 56% premium in terms of their average price and a 2% premium in terms of their average quality ratings relative to appellation wine populations. Study 2 identifies several explanatory themes for differences: vintner demographics, historical background, terroir, labels, price, quality, customers, and appellation. The study demonstrates the importance of an ingredient co-branding strategy, such as a terroir co-brand, for a firm to command a premium price. A terroir brand signals quality and scarcity and enables marketers to suggest premium prices over appellation brands.

## **Research Question**

Study 1, an empirical study using public data, asks the question, what is the value of terroir co-brands? Study 2, a sequential explanatory qualitative investigation following Study 1, asks subject matter experts why and how differences exist between terroir and appellation co-brands.

## **Method and Data**

Study 1 uses the varietal, Cabernet Sauvignon. Cabernet Sauvignon represents the top planted variety (51%) in the Napa Valley AVA and has the highest average price per ton at \$7,940 in Napa Valley and the state of California. First, price is a continuous variable based on SRP for a 750 ml bottle. Each of the two populations within study 1 includes the suggested retail price (SRP) for single-varietal wine bottles from a narrow range of vintages. The second indicator of marketing value uses WS quality ratings, ranging from 50 to 100 points. Production represents a measure of wine case production for a given SKU. Case production signifies supply-side resource scarcity.

In terms of analytical procedures, the normality of the population distributions was questionable; therefore, I administered a distribution-free Mann-Whitney test in SPSS v26 to compare the differences between the two independent groups. Next, I conducted a MANOVA with equal group sizes to compare the sample means.

## **Summary of Findings**

In Study 1, both Mann-Whitney and MANOVA tests reveal SRP differed significantly between the terroir branded and the appellation wine. This result highlights terroir co-branded wines in Oakville AVA are substantially distinguishable from appellation wines and command a higher average price difference of 56%. The quality ratings differed significantly between terroir



branded and appellation wines. The blind taste-tested quality ratings from subject matter experts differed significantly for terroir branded wines by an average of a 2% difference. Finally, the case production significantly differed between terroir branded and appellation wines. The findings support a substantive difference in populations.

Study 2 used insights and plausible explanations from subject matter experts to understand the outcomes of marketing value better. The research suggests that producers can command higher prices and anticipate a higher quality rating with terroir ingredient brands. Semi-structured interview themes included vintner demographics (i.e., large, midsize, and small), historical background (Phylloxera and cult wines), terroir, labels, price, quality, customers, and appellation.

### **Key Contributions**

For practice, a producer can reduce the costs of SKU promotions and appropriate customer brand awareness via an established terroir brand. Second, producers benefit from the perceived brand authenticity of terroir brands. Third, producers benefit from the positive added-value effects of secondary brand associations through brand knowledge transfer. In this scenario, a host brand receives benefits via brand knowledge transfer from the terroir brand. Fourth, an ingredient may represent a product line extension strategy for a producer. A terroir brand may represent a new product line extension into a new segment or a slot filler expansion into an existing category.

For the academe, this study demonstrates the importance of an ingredient co-branding strategy for a firm to command a premium price. Second, it highlights a new hybrid co-brand, terroir, that simultaneously signals both place and ingredient. Third, I integrate three research streams to explain the marketing value of terroir brands. These three streams include scarcity

signaling (i.e., ingredient branding), supply-side scarcity (i.e., resource-based view), and consumer demand (i.e., the psychology of scarcity). Fourth, the study employs a sequential mixed-methods explanatory study approach to identify plausible themes of how and why price and quality may differ between terroir and appellation brands.

**1. Title:**

**THAT BRAND IS NO GOOD UNLESS I FORGIVE IT: MINDSET EFFECT ON POST BRAND TRANSGRESSION RESPONSE**

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**4. Keywords:** Brand Transgression, Mindset, Avoidance Desire, Negative Brand Evaluation, Switching Intention.

**5. Description:** This research suggests that when individuals experience brand transgression, consumers with fixed (vs. growth) mindset exhibit higher (vs. lower) avoidance desire and switching intentions and this effect is mediated by negative brand evaluation.

## EXTENDED ABSTRACT

### Research Question

When consumers experience negative events involving brands, it causes them to rethink and reevaluate the brand and even determine the continuity of the relationship between the consumer and the brand (Khamitov et al. 2019). We propose that the consumers' mindset affects their response to a brand transgression. Specifically, consumers who believe in the fixedness (vs. malleability) of human characteristics will evaluate the brand more (vs. less) negatively, have higher (vs. lower) avoidance desire which leads to higher (vs. lower) switching intentions in response to brand transgression.

### Method and Data

In Study 1 (n=123), participants were informed that this study is about M-Turk. Then, they were asked to indicate their loyalty toward M-Turk (Fournier 1994;  $\alpha = .89$ ). Next, participants read a brand transgression scenario in which M-Turk workers were unable to transfer their earnings and, after inquiring by email, received a canned response from M-Turk. Following this, participants' avoidance desire was measured (Gregory et al. 2009). Then, they were asked to imagine that they found a similar platform to M-Turk and asked to report their switching intentions. Lastly, their mindset, severity and perceived violation of brand transgression were measured (Chiu et al. 1997, Hess et al. 2003).

In Study 2 (n=196), participants were manipulated either fixed or growth mindset (Chiu et al. 1997) and read a different brand transgression scenario in which they experience poor service by American Airlines. Then their negative brand evaluations, avoidance desire, and switching intentions were measured. Lastly, as a separate study, they were asked to forgive (vs. not forgive) the transgressor brand. Then they were asked to write about their thought process and what they would do to forgive (Wenzel et al. 2010). Then their avoidance desire and switching intentions were measured.

### **Summary of Findings**

In first study, we found that individuals with stronger belief in fixed mindset rather than growth mindset, have higher avoidance desire and switching intentions toward M-Turk after controlling for severity of transgression and brand loyalty. In second study, participants with a fixed (vs. growth) mindset were more likely to evaluate brand negatively and it increased their avoidance desire and switching intentions. However, participants who were asked to forgive the brand showed less avoidance desire and switching intentions than those who were not asked to forgive the brand.

In two studies, we found that consumers' mindset is an important variable which influences one's brand evaluation, desire to avoid the brand, and switching intentions. Specifically, consumers with a fixed mindset tend to have a stronger desire to avoid the brand after experiencing a transgression compared to consumers with a growth mindset. This effect occurs because, after experiencing a brand transgression, consumers with a fixed mindset evaluate the brand more negatively compared to consumers with a growth mindset. Critically, avoidance desire and switching intentions were reduced when consumers are able to forgive the brand.

### **Key Contributions**

By showing different mindsets shape different evaluations and behavior responses to brand transgressions, this research improves understanding about consumers' psychological process in response to brand transgression. This research emphasizes forgiveness is a key element in maintaining brand-consumer relationship after brand transgression. Future research should investigate how brands can best encourage consumers to forgive.

“References are available upon request.”

**THE COMMERCIALIZATION OF PERSONAL BRANDS: ATHLETES' EXPERIENCES WITH PERSONAL BRAND DEVELOPMENT AND MONETIZATION ON SOCIAL MEDIA**

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**Keywords:** Personal Brand, Influencer Marketing, Digital Media, Social Media, Brand Strategy.

**Description:** The current research examines professional talents' experiences, strategies, and challenges related to personal brand building and monetization on social media.

**EXTENDED ABSTRACT**

**Research Question.** The current study explores the experiential dimension of personal brand monetization on social media for professional talents, by focusing on the context of elite athletes. The study addresses research questions related to how professional talents establish their social media image, what brand building strategies they employ, and what gratifications and challenges they experience.

**Method and Data.** The study employs an interpretivist paradigm and an inductive grounded theory approach (Charmaz, 2006). Data were generated through semi-structured interviews conducted online via videoconference software with an international sample of 22 elite athletes (e.g., members of national teams, Olympians, and Paralympians) who actively branded

themselves on social media for commercial purposes. The data were transcribed verbatim and analyzed in the ATLAS.ti software following a three-step coding process; the relationship between the codes, themes, and theoretical dimensions were captured in the form of data structure (Gioia et al., 2013).

**Summary of Findings.** The findings show that for professional talents, self-branding and personal brand monetization on social media are complex and nuanced processes underpinned by three theoretical dimensions: the construction of a social media image, brand building and monetization strategies, and evaluation of self-branding outcomes. Talents' construction of social media image is underpinned by the motives they hold for social media branding, their self-concept, and their understanding of brand status. To achieve their self-branding objectives, talents engage in brand relationship building, create a narrative, and seek to optimize the impact of their content. Finally, talents assess their self-branding outcomes through evaluation of their brand impact and their self-branding gratifications and challenges.

**Statement of Key Contributions.** Theoretically, the study addresses the current gap in understanding of the issues related to professional talents' personal brand management and monetization on social media. The findings show how the personal brands' operations are different from what is known theoretically about traditional firm brands (c.f., Keller, 1993), addressing the role of the "human" in a human brand (Fournier & Eckhardt, 2019). The study addresses the gap in knowledge on the possible consequences and challenges that individuals may face when building a personal brand (Swaminathan et al., 2020). The research offers a helpful perspective to stakeholders in sport, creative, and entertainment industries by describing the experiences of individuals trying to monetize personal brands on social media and identifies

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the areas where branded talents need training and support to mitigate external and intrapersonal challenges that they experience.

References are available upon request.



## **THE CONSEQUENCES OF A ‘PEOPLE BEFORE PROFITS’ STRATEGY ON THE CONSUMER BRAND RELATIONSHIP: EVIDENCE FROM THE COVID-19 CRISIS**

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**Keywords:** consumer brand relationship; crisis communication; situational crisis communication theory; Covid-19

**Description:** This paper investigates the effect of crisis response speed, crisis response evaluation, and crisis communication strategy on consumer brand relationship outcomes in the Covid-19 outbreak.

### **EXTENDED ABSTRACT**

#### **Research Question**

In 2020, Covid-19 entered the human population resulting in global lockdown (Mora Cortez and Johnston, 2020). Socially, this led to the isolation of whole populations and unprecedented patterns of consumer behavior. Economically, the impact is predicted to be worse than the financial crisis of 2008 (IMF, 2020). In a health crisis, the speed at which a firm reacts is paramount (Kim et al., 2011). In March 2020, the UK advice on how to stop the spread of Covid-19 became clear—stay home. For nonessential businesses, it became a case of *when* to close, not *if* to close. The timing of these closures had the potential to save lives. In addition to

timing, providing stakeholders with clear instruction to protect themselves from Covid-19 was essential. Many businesses took the ‘people before profits’ approach—closing their businesses early to reduce the risk to the lives of its stakeholders (Pantano et al., 2020). But with many relatively large brands (e.g., Victoria’s Secret, TM Lewin) already filing for administration, were these unparalleled losses worth it? To address this question, we investigate the effect of crisis response speed (CRS) on crisis response evaluation (CRE) and consumer brand relationship (CBR) change depending on the information strategy type.

### **Method and Data**

Given the size and economic importance of the UK higher education sector, we opted for a university context and conducted 1) a longitudinal survey, 2) content analysis on university twitter data, and 3) analysis of campus closure data. The longitudinal survey was administered before and after the initial UK Covid-19 outbreak to UK undergraduate university students, yielding a total of 310 usable responses across both waves. Multiple item scales were used for CRE and the CBR dimensions (adapted from Aaker et al., 2004; Albert et al., 2013; Delgado-Ballester et al., 2003; Rusbult, 1980). The score from the t2 questionnaire was subtracted from the t1 questionnaire score to generate a change score for each dimension.

Information strategy type was operationalized through content analysis of each university’s twitter data from 9<sup>th</sup> March 2020 up until 31<sup>th</sup> May which generated two scores for each university in the sample; 1) the extent to which they used an instructing strategy and, 2) the extent to which they used on adjusting strategy. These two scores for each university were then compared and the highest score was deemed to be the dominant information strategy practiced by the focal university. CRS was operationalized through data of campus closure.

## **Summary of Findings**

Confirmatory factor analysis (CFA) assessed and confirmed the reliability and validity of the multi-item measures. The relationship between intimacy-trust and passion-self-connection indicated some lack of discriminant validity but this can be explained in prior literature (Breivik and Thorbjørnsen, 2008), and was not deemed to be a problem in the context of the CBR construct.

The hypotheses were tested using regression analysis in SPSS PROCESS. First, we found a direct positive effect of CRS on CRE. Second, we found differential effects of CRE on CBR, depending on the dimension. Third, we found a significant moderating effect of crisis communication strategy—namely that the relationship between CRS and CRE was positive in the instructing cognition and negative in the adjusting condition.

## **Key Contributions**

Previous research demonstrated that placing people before profits contributes to greater shareholder value (Ogden and Watson, 1999). Similarly, in the context of crises, prioritizing stakeholder well-being with quick, proactive intervention is shown to improve trust and post-crisis purchase intention (Hegner et al., 2016). This approach was used heavily in the Covid-19 pandemic, which saw many firms closing early to protect the safety of its stakeholders to the detriment of firm profits.

Our results find overall support for the use of a ‘people before profits’ approach, although it is more effective when using adjusting vs instructing information strategies. Additionally, we find that consumers’ evaluations of the crisis response affect certain dimensions of the consumer brand relationship (CBR) positively, some negatively, and others neutrally. Through this investigation we contribute to the brand transgression and crisis

communication literature by, illustrating the conditional effects of the people before profits approach.

Second, we contribute to the service failure literature by illustrating the presence of the service recovery paradox (SRP) on only certain relationship dimensions. Finally, we contribute to the ongoing debate in the CBR literature steam by supporting the use of the CBR construct at a disaggregated level (Breivik and Thorbjørnsen, 2008).

## **THE IMPLICATIONS OF BRAND ETHEREALITY ON LUXURY BRAND RELATIONSHIP MANAGEMENT**

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**Keywords:** luxury brands, brand ethereality, luxury dream, brand relationship.

**Description:** This research clarifies how brand ethereality (luxury dream) contributes to luxury brand relationship management.

### **EXTENDED ABSTRACT**

**Research Question:** How brand ethereality drive customer engagement with luxury brands, customer's luxury brand loyalty, and customers' impulsive buying behaviour, on social media?

**Method And Data:** To test the model, the constructs' measurement items were adapted from the literature. All items were based on seven-point Likert scales. Brand ethereality lacks measurement items in the literature. Therefore, a scale development procedure was conducted to develop measurement items for it following rigours scale development methodology. Starting from study 1, where in-depth interview method was adopted to yield a clear understanding of the luxury consumers' perception about brand ethereality. A total of 25 interviews were conducted in study 1. Following the study 1, we moved to Study 2 to test the results of Study 1 quantitatively. Interviews were used to generate the items for brand ethereality. Content validity (in study 2), exploratory factor analysis (in study 2), confirmatory factor analysis (in study 3), were employed to validate the new scales of brand ethereality, and nomological validity of the model (in

**study 4) was used to test the final model of the study by using Partial Least Square-Structural Equation Modelling (PLS-SEM).**

**Summary of Findings: All the results in studies 2,3, and 4 were within the satisfactory outcomes. Regarding hypotheses testing, all hypotheses were significantly supported.**

**Key Contributions: The study provides several theoretical contributions. In response to this thirst field to identify the luxury brand engagement in social media and in a response to key calls from the literature, to generate a better understanding of customer-brand relationship in luxury brands. First, our research investigates the effect of brand ethereality (luxury dream) on customers' engagement with luxury brands on SM, and find that customers' dreams of luxury dreams induce their engagement with luxury brands on SM. Second, compulsive buying behaviour can be activated by customer brand engagement powerfully. This study is the first study the prove and find the effect of customer brand engagement on compulsive buying behaviour. Third, customer engagement with luxury brands entices their loyalty with luxury brands. Finally, the study developed measurement scale for brand ethereality which lacked in the previous literature. The results gained through this study can help guide luxury brand managers how to better manage their brands on SM. First, Luxury brands are recommended to stress on the dream creation, due to its ability to better engage customers with their brands. Therefore, it is highly beneficial to spend significant resources on dream formulation.**

## **THE INTERACTIVE EFFECT OF BOUNDARIES AND POLITICAL IDEOLOGY ON LOGO EVALUATION**

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**Keywords:** *political ideology, logo shape, boundary*

**Description:** *Our research examines the interactive effect of political ideology and boundaries on consumer evaluations.*

### **EXTENDED ABSTRACT**

#### **Research Question**

Consumers often seek structure in their environments and consumption behaviors to maintain or replenish a sense of control (Friesen, Kay, Eibach, and Galinsky 2014). Structure may be found in the type of products consumers purchase (Chen, Lee, and Yap 2016) or in visual aspects of an environment, both in tangible or intangible boundaries (Cutright 2011). The current research examines the effects of bounded or unbounded brand logos on consumer evaluation of the brand

#### **Research Background**

Prior literature on the role of boundaries is limited and has focused primarily on when, but not for whom, bounded structure is preferable. For instance, tangible boundaries which “separate and contain a focal object” positively influence consumption when one’s sense of control is threatened as a means of coping (Cutright 2011, p. 776). Consumers may perceive boundaries in logos as protecting or confining depending on the level of risk associated with the

purchase (Fajardo, Zhang, and Tsiros 2016). Furthermore, brand extensions may have differential impacts based on the boundaries in the logos (Chen and Bei 2019<sup>a</sup>; Chen and Bei, 2019<sup>b</sup>). Logos with no frames (with frames) increase brand extension evaluation for promotion (prevention) focused individuals (Chen and Bei 2019<sup>a</sup>).

Consumers' political ideology, usually conceptualized on a liberal-conservative continuum (Jost 2017) and reflective of an individual's views about the role and policies of government in society (Kim, Park, and Dubois 2018), can affect underlying goals, needs, cognition, processing, moral foundations, and system justifications, thus influencing their attitudes, evaluations, and consumption behaviors (Jung and Mittal 2019). Conservative political beliefs are characterized by politeness (Hirsch, DeYoung, Xu, and Peterson 2010), conscientiousness (Carney, Jost, Gosling, and Potter 2008), variety seeking (Fernandes and Mandel 2011), and traditionalism (Shavitt 2017), while liberal ideology emphasizes agreeableness (Hirsch, DeYoung, Xu, and Peterson 2010), open-mindedness (Carney, Jost, Gosling, and Potter 2008), and egalitarianism (Shavitt 2017). For example, messaging promoting sustainability efforts are more effective for liberals when the messaging emphasizes individualization, helping, and fairness, while conservatives are more likely to behave sustainably if promotional messages highlight adhering to social norms of in-groups and the maintenance of social order (Kidwell, Farmer and Hardesty 2013).

We explore how boundaries can have differential impacts on brand evaluation depending upon the viewer's political ideology. We demonstrate that liberal consumers evaluate bounded logos more negatively than those that are unbounded. In contrast, conservative consumers are indifferent between the two types of logos. Based on moral foundation theory, we posit that the



interactive effect of boundaries and political ideology occurs because of liberal consumers' distaste for constraint.

### **Summary of Findings**

Through an experimental study, we showed that, when a bounded logo is viewed by a consumer who identifies with liberal ideology, logo evaluations decrease relative to evaluations of unbounded logos. Furthermore, we demonstrated that the outcomes of conservative consumers do not differ between bounded and unbounded logo types.

### **Key Contributions**

The current research contributes to both marketing theory and practice. First, we contribute to the limited research on boundaries. While tangible boundaries provide structure and help consumers feel a sense of control (Cutright 2011), the current research suggests that not all consumers evaluate boundaries positively, thus identifying a moderating condition for the effect of boundaries. Under normal circumstances, liberals and conservatives are found to differ in their preferences for bounded versus unbounded logos, thus adding to the marketing literature on political ideology. This is an underexplored research area in consumer behavior that is becoming more important as the current divide between political ideologies widens.

In addition, the current research has implications for service providers, brands, and organizations which are targeting segmented groups of consumers. By recognizing liberal consumers' preference for unbounded, rather than bounded, logos, new organizations which cater to liberal consumers should be mindful when choosing their logo designs. For example, a non-profit organization interested in gun control should refrain from using a bounded logo.

*References are available upon request.*

## **TWO SHADES OF SHAME: THE DIFFERENTIATING ROLES OF EPISODIC SHAME AND BRAND SHAME FOLLOWING SERVICE FAILURES**

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**Keywords:** Dissatisfaction; Anger; Shame; Brand shame, Negative word-of-mouth

**Description:** This research investigates two different types of consumer shame and their varying influences on anger and negative word-of-mouth.

### **EXTENDED ABSTRACT**

**Research Questions** – (1) What kinds of shame do consumers feel after they have experienced a negative consumption incidence (e.g., product failure)? (2) How are the identified shame types related to dissatisfaction? (3) How are consumer shame types related to perceived anger and consumers' intention to voice negative word-of-mouth?

**Method and Data** – This research's hypotheses were tested by using data from two scenario-based online surveys (study 1: 245 participants; study 2: 661 participants) sampled from adult consumers. The online questionnaires were fully standardized and included multi-item measures taken from scales published in leading academic journals. Measures' psychometric properties were assessed by means of confirmatory factor analyses, while PROCESS (Hayes, 2018) enabled us to test the two mediation models and their underlying hypotheses.

**Summary of Findings** – While service failure literature provides reasonable knowledge about the role of outward-directed emotions (e.g., anger) developed after unfavourable consumption experiences, little is known about the rise and the consequences of inward-directed emotions. This research makes the connection between the general emotion of customer dissatisfaction and inward- as well as outward-directed emotions. It shows that dissatisfaction is a prerequisite of more specific negative emotions and points to the multifaceted nature of shame as a failure-induced emotional reaction. The two identified facets of self-conscious negative inward-directed emotions of shame elicited by customer dissatisfaction resulting from service failure are 'episodic shame' and 'brand shame'. Two empirical studies show that two types of shame vary in their effect on consumers' outward-directed emotions of anger and willingness to voice negative word-of-mouth (NWOM). Episodic shame reduces NWOM both directly and indirectly via reduction of anger. In contrast, 'brand shame' endangers the consumer's self-concept which ultimately leads to an externalization of blame and increases anger. Dissatisfied consumers who feel 'brand shame' develop anger towards the involved brand, which results in higher NWOM.

**Statement of Key Contributions** – This research introduces and sheds light on the differential nature of the two aspects of shame in a service failure context: episodic shame and brand shame.

We argue that failures in service encounters that are characterized as transient transactions involving single short-term events, with distinct beginning and end evoke the emotions of episodic shame. Due to discrete nature of this particular relationship little or no connection with the shame attribution object is established. Relationships that customers commonly develop with brands, on the other hand, resemble relational exchanges characterized by repeated exchanges between the brand and the customer over extended period of time, where consumers more often than not incorporate brands into their self-concept. We argue that service failures of such brands are seen as personal failures and evoke a different kind of shame, i.e. brand shame, which results from the attribution of shame to the shame object, in this case, the brand and a higher ego-relevance. Grounded in differentiating nature of exchange relationships described above and the two types of shame emerging from them, we explore the differentiating consequences of episodic and brand shame on a typically investigated outward-directed emotion of anger and consumer retaliation behaviour, i.e. negative word of mouth.

# **International and Cross-cultural Marketing**

## **COMPLEX CHOICE SITUATIONS AND CHOICE DEFERRAL: THE ROLE OF NATIONAL CULTURE**

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**Keywords:** E-Commerce; Consumer Behavior; Choice Deferral; Hofstede's Cultural Dimensions

**Description:** Our research investigates the moderating influence of Hofstede's cultural dimensions on the relationship between complexity of the choice situation and choice deferral.

### **EXTENDED ABSTRACT**

**Research Question** – Prior work found that choice set complexity increases decision making difficulty which could result in choice deferral, a consumer's decision to postpone a purchase (Chernev, Böckenholt, and Goodman 2014). In the online context, only browsing behavior and engagement in the decision process have so far been examined as influencing factors on the relationship between choice set characteristics and consumer response. We want to build on these findings and extend research around consumer level differences by taking the consumer's national culture into account, which captures long-lasting personal experiences and deeply embedded personal values (Petersen, Kushwaha, and Kumar 2015). We combine decision making theory and Hofstede's (2001) cultural dimensions to answer the following research question: How does the customers' national culture relate to choice deferral in complex choice situations?

**Method and Data** – We examined our hypotheses analyzing a dataset obtained from a globally operating travel platform. The dataset comprises longitudinal search and conversion data for

182,264 customers from 16 nations randomly selected from the full year 2019. We combined this data with information about the choice set the consumer was presented at each visit. The dependent variable of our analysis, *choice deferral*, measured how many deferrals a consumer made before eventually buying the product. The independent variable, *choice set complexity*, captured the average number of products a consumer was shown per visit as well as the granularity of the choice set, which measured the relative difference in attractiveness of the shown products (Tsekouras and Dellaert 2020). As moderators, we investigated the *consumer's national culture* as seen in previous research (Petersen, Kushwaha, and Kumar 2015). Specifically, we considered the dimensions of power distance, individualism, masculinity, uncertainty avoidance and indulgence. Additionally, we controlled for national differences beyond culture (e.g., GDP, economic development) and factors that have shown to influence purchase decisions (purchase value, consumer knowledge on product). In line with prior research (e.g. Albrecht, Hattula, and Lehmann 2017), we conducted an ordinary least squares (OLS) regression with robust standard errors.

**Summary of Findings** – We found significant moderating effects of cultural dimensions on the positive relationship between complexity of choice set and deferral. Consumer from nations with high values of masculinity and indulgence show a lower propensity to defer choice, which implies that these consumers can deal with more information and greater assortments. While consumers with masculine values navigate quickly through complex decision making due to their assertiveness and focus on goal achievement (Venkatesh et al. 2004), consumers with high scores of indulgence focus on instant gratification (Rick et al., 2008). Against our assumptions, a high level of uncertainty avoidance weakens the propensity to defer choice in a complex choice situation. Consumers with high uncertainty avoidance seem to focus on fast completion of the transaction to reduce uncertainty resulting from e.g. changes in the product offering instead of

deferring the choice to collect information to ensure that they make the best choice. Lastly, power distance has a negative moderating effect while individualism has a positive one. These findings show that social pressures to conform do not impact individual consumer behavior.

**Key Contributions** – We contribute to the existing literature in three ways. First, we introduce the customer’s national culture as influencing factor on choice deferral propensity in complex choice situations. Thereby we expand previous e-commerce literature that found browsing behavior and engagement in the purchase situation as antecedents of consumer response in these situations (Tsekouras and Dellaert 2020). Second, we advance research on choice deferral in the e-commerce space. So far, choice deferral research mainly builds on laboratory evidence and primary data (Scheibehenne, Greifeneder, and Todd 2010). We offer new insights by studying real purchase behavior (Seiders et al. 2005). Lastly, we offer novel theoretical explanations for the phenomenon of choice deferral by taking a cultural perspective on choice deferral propensities. Thus, we extend previous findings that mainly leveraged decision-making literature and information processing theory (Chernev, Böckenholt, and Goodman 2014).

*References are available upon request*

**CUSTOMER ATTITUDES TOWARDS FOREIGN-ACCENTED EMPLOYEES:  
CONSEQUENCES FOR VOLUNTARY, REPLACEABLE, AND MANDATORY  
CUSTOMER PARTICIPATION IN SERVICES**

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**Keywords:** intercultural service encounters, accent, stereotypes, customer participation

**Description:** This paper examines the direct, indirect, and conditional effects of a foreign employee's accent on customer participation in services.

**EXTENDED ABSTRACT**

**Research Question**

Approximately 272 million people live outside their country of birth and intercultural service encounters have become very common. In such interactions, customers use audiovisual cues to infer the employee's ethnicity, which usually evokes cultural stereotypes. One such cue is accent, which may be easily discernable for listeners and seems to play a more important role in ethnic categorization than physical appearance, but is also malleable and can be reduced with effort and training. Besides an increasing non-native workforce, services are also undergoing drastic changes on the consumer side. In an era of connected, informed, empowered, and active consumers, enabling them to be co-producers of a firm's core offering is considered the next frontier in competitive effectiveness. This co-creation of value is



achieved through customer participation in the service process. However, there is not a single paper on how an employee's accent might influence customer participation, a research gap that we aim to address by drawing from three different research fields (linguistics, cultural stereotyping, transformative services). Our research question is: How does a service employee's accent influence customer participation?

### **Method and Data**

We conducted three online studies, for which participants were recruited using a quota sampling method. In all three studies, participants were asked to imagine a given fictitious service encounter. There were always several between-subjects conditions (local accent vs. foreign accent(s)), in which participants listened to a one-minute audio scenario of a service employee speaking. By using the same voice actor in all recordings, speaker-specific variables were held constant (e.g., speech rate, voice pitch and loudness). There were several manipulation checks, namely accent strength, foreignness, liking, and familiarity, to ensure that our manipulations were successful. The focal constructs were assessed using existing multi-item scales that proved to be highly reliable. The three studies achieved sample sizes of 187, 377, and 310 respondents. Mediation and moderation analyses were performed with SPSS PROCESS.

### **Summary of Findings**

Our findings from Study 1 show that a foreign accent weakens customer participation indirectly through reduced intelligibility, but that cultural distance does not play a role. Consistent with a negativity bias, Study 2 revealed that an unfavorable accent negatively affects customer participation (partially because the service provider is viewed as less attractive and dynamic), whereas the effect of a positively valenced accent is non-significant. In Study 3, we

differentiated between three types of participation that have previously been studied in isolation or mixed without differentiation. We found that an unfavorable accent has a negative effect on voluntary participation, but, in contrast, increases replaceable participation indirectly through reduced trust. We also examined individual and situational factors that may accentuate or attenuate customers' participation intentions, and found that the effect of accent-induced trust on replaceable participation is reinforced when customers have a strong need for interaction (i.e., when they value and enjoy personal contact with frontline employees).

### **Statement of Key Contributions**

First, we explore the effect of an employee's accent on a customer *behavior*, whereas previous studies have assessed customer feelings, perceptions, or expectations. Second, we differentiate between negatively and positively valenced accents, while prior findings were mostly limited to stigmatized accents such as Indian or Filipino and may therefore not be generalizable. Distinguishing between different accents and their valence helps to understand whether customer responses differ across accent types. Third, we also find significant *indirect* effects and a moderation effect. Our work thus deepens the existing understanding of the underlying mechanisms that lead consumers to adopt or withhold certain behaviors upon hearing an accented employee. Indeed, extant studies do not help to disentangle contradictory findings because they have mainly applied simple stimulus-response experiments, but did not model the intervening variables. Fourth, we differentiate between three types of participation that have previously been studied in isolation or mixed without differentiation: mandatory, replaceable, and voluntary activities. In doing so, our paper enhances the conceptual and empirical clarity in this field. Finally, in contrast to virtually all studies, we shed light on an antecedent rather than a consequence of customer participation.

**DO INTERNATIONALIZATION AND INNOVATION REDUCE FIRM-  
IDIOSYNCRATIC RISK? EVIDENCE FROM CHINA**

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**Keywords:** Internationalization, innovation, idiosyncratic risk, emerging economy

**Description:** Impacts of internationalization and innovation on idiosyncratic risk

**EXTENDED ABSTRACT**

**Research Question**

In today's turbulent global marketplace and rising protectionism, increases in internationalization and innovation raise an important question to researchers and practitioners on whether such increases promote or suppress a firm's idiosyncratic risk. To address this question, we propose the following hypotheses:

*H1: As internationalization increases, firm-idiosyncratic risk decreases.*

*H2: As innovation increases, firm-idiosyncratic risk increases.*

*H3: As innovation increases, the idiosyncratic risk reduction effect of internationalization decreases.*

*H4a: As market turbulence increases, more internationalization decreases firm-idiosyncratic risk.*

*H4b: As market turbulence increases, more innovation increases firm-idiosyncratic risk.*

## **Method And Data**

We focus on high-tech firms in China and set our observation period from 2009 to 2015. A total of 469 high-tech firms were listed on the stock exchanges in China. Because we needed data for firm-level foreign sales, stock price, and financial data, we turned to several Chinese databases. After removing firms of excessive missing data, our final sample involves 323 firms or 1,783 firm-year observations. Based on our conceptual framework and its hypotheses discussed above, this study sets the model in Equation (1):

$$iRisk_{i,t+1} = \beta_0 + \beta_1 DOI_{it} + \beta_2 R\&D_{it} + \beta_3 Mtur_{it} + \beta_4 DOI * R\&D_{it} + \beta_5 DOI * Mtur_{it} + \beta_6 R\&D * Mtur_{it} + \beta_7 DOI * R\&D * Mtur_{it} + \sum \beta_k Z_{it} + \delta_t + \varepsilon_{it} \quad (1)$$

where *iRisk* is firm-idiosyncratic risk, *DOI* is the degree of internationalization; *R&D* indicates innovation, and *Mtur* represents market turbulence; *Z*, a vector of controls, is included for each observation;  $\beta$  is a coefficient, indicating the effect of each individual factor on internationalization;  $\delta$  and  $\varepsilon$  represent respectively the time-fixed effect and the error term; and the subscripts of *i* and *t* indicate respectively firm and year. All but the dependent variable are lagged by one year.

## **Summary of Findings**

Our empirical findings are based on fixed effects models. Variables are mean-centered whenever appropriate before creating any interaction terms to avoid the concern of multicollinearity. The results support H1, showing a negative relationship between a firm's internationalization and its idiosyncratic risk ( $\beta = -.0197, p < .05$ ). However, our results fail to support H2 ( $\beta = .000155, p > .10$ ), which postulated that innovation would lead to higher idiosyncratic risk. The results show that the interaction of internationalization and innovation has a positive effect on firm-idiosyncratic risk, supporting H3 ( $\beta = .00958, p < .01$ ). Our findings further support H4a, which postulated a negative interaction effect of internationalization and market turbulence on idiosyncratic risk ( $\beta = -.0019, p < .01$ ). With respect to H4b, we find a positive and significant effect ( $\beta = .000207, p < .01$ ), confirming the risk increasing role of innovation in the presence of high market turbulence. Finally, H4c posited that in time of low market turbulence, internationalization and innovation can collectively reduce idiosyncratic risk and we found support for it ( $\beta = .000674, p < .01$ ).

### **Statement of Key Contributions**

By investigating whether and how internationalization and innovation individually and collectively affect firm-idiosyncratic risk, we make multiple contributions. First, both innovation and internationalization focus on aggressive business growth and yet, prior research primarily investigates their impacts on firm performance. Simply focusing on firm performance (e.g., Tobin's  $q$  and return on assets), however, may mislead managers to believe that business growth via internationalization and/or innovation does not come with a price. Second, we contribute to practice by showing the upside and downside risks of these growth strategies. Our results indicate that internationalization reduces firm-idiosyncratic risk and such risk reduction effect is even stronger in time of high market turbulence. Nonetheless, although innovation by itself does

not affect idiosyncratic risk, it weakens the idiosyncratic risk reduction effect of internationalization; such weakening effect further accelerates as market uncertainty increases.



## **DOES THE PANDEMIC INFLUENCE THE COUNTRY OF ORIGIN EFFECT? HIGHER PURCHASE INTENTIONS TOWARD FACE MASKS FROM DEVELOPING COUNTRIES**

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Keywords: consumer attitudes, persuasion, cross-cultural research, online consumer behavior, country of origin effect

Description: This study explores the impact of country of origin (COO) on consumers' trust in product information by comparing information about face masks from developed and developing countries.

### **EXTENDED ABSTRACT**

#### **Research Question**

Online reviews have become a crucial component of purchase decisions. The trustworthiness of online recommendations determines the perceived credibility of the recommendations (Fan et al. 2018; Huang and Chen 2006).

Cultural attributes influence consumers' trust in businesses; disclosing online reviewers' cultural background (e.g., nationality) increases customer loyalty toward services (Kim et al. 2018). Perceived cultural differences negatively influence purchase-related decisions (Ouellet 2007), and this tendency is similar for the perceived country-of-origin (COO) of products, which varies by the congruence between the actual COO and consumers' expectations (Melnyk et al. 2012). A negative COO leads to less favorable product evaluations (Chen et al. 2014; Swaminathan et al. 2007), and products from developed (vs. developing) countries are more trusted (Melnyk et al. 2012). Consumers' trust mediates the COO effect on purchase intentions, which is more apparent in emerging countries than in developed countries (Jiménez and Martin 2014).



In this study, we explore how products' COO functions to influence the trust in online reviews during the pandemic period, which has not yet been examined, by comparing pandemic essential products (e.g., face masks) from developed and developing countries.

### **Method and Data**

We recruited 203 U.S. residents via Mechanical Turk, who were randomly assigned to one of the conditions in our two-way (COO: U.S.A. vs. Australia vs. India vs. Nigeria) between-subjects design. The participants read a news article of a local media located in the assigned country, featuring local consumers' positive online reviews and recommendations about the face mask. The article also mentioned that the face mask was currently popular among its local consumers in the country it was manufactured in, was far more advanced than medical or clothes masks, and effectively prevented the transmission of the contagious virus. After reading the reviews presented in their article, the participants answered questions regarding their trust in the online reviews ( $\alpha=.85$ ), purchase intentions ( $\alpha=.74$ ), and perceived cultural difference from the featured country where the masks were manufactured and sold ( $\alpha=.89$ ).

### **Summary of Findings**

We used PROCESS macros (Hayes 2018) to perform a serial mediation (model 6; 50,000 bootstrap samples) of the perceived cultural difference (M1) and trust (M2) between the COO (X) and purchase intentions (Y). The serial-mediation effect was significant among those who viewed the face masks from developing countries only (India:  $b=.18$ ,  $SE=.06$ , 95%CI [.06, .31]; Nigeria:  $b=.17$ ,  $SE=.06$ , 95%CI [.05, .30]) such that when the COO was either India or Nigeria, the COO increased U.S. consumers' perceived cultural differences,

which then increased trust toward the face mask reviews, resulting in higher purchase intentions.

In Study 2, we will further verify whether the effects found in this study would be consistent when using *non-pandemic-related products* (e.g., non-face-mask products) by comparing them to pandemic-related items (e.g., face masks; hand sanitizers). In Study 3, using Study 2's design, we will test whether the design produces similar effects among *non-U.S. residents* by recruiting participants from abroad.

### **Key Contributions**

In this study, we found a unique pandemic-specific COO effect such that COO of developing countries increased trust and purchase intentions, suggesting the opposite effect of most previous findings in the literature. The findings show that when products were made in developing countries, trust in the online reviews increased, which then led to higher purchase intentions. This reversed effect may be due to the unique pandemic situation (i.e., mask shortage). Thus, the conventional COO reputation probably did not matter much as long as the quality of products met consumers' needs. In other words, consumers' desperate motivation to purchase the products might have attenuated the effect of animosity which often results in the rejection of products from developing countries (Jiménez and Martin 2014) and made consumers evaluate the products more objectively.

Although further studies are required, the findings suggest that pandemic-related products, compared to non-pandemic products, may have better selling opportunities in the U.S. market even if they are from developing or emerging countries. The COO effects may evolve with consumption situations, and an under-developed or developing COO may be

accepted widely in an unordinary case, such as the pandemic situation, in which the U.S. is widely compared with other countries.

\*References are available upon request.

## **DRIVERS OF MUSLIMS' PURCHASES OF LUXURY BRANDS: A CROSS-COUNTRY COMPARISON**

### **Abstract**

The current research is cross-cultural, targeting Muslims in Kuwait (collectivist society) and the UK (individualist society) and measuring the impact of perceived luxury values on consumers' luxury purchase intentions. An online questionnaire is used to collect data from 600 Muslim respondents above 18 years old who are equally distributed between Kuwait and the United Kingdom. The findings show that Muslims' purchase intentions of luxury are influenced by the perceived extended self, perfectionism, hedonism, materialism, conspicuousness, uniqueness, and social conformity values of luxury, but not consumers' orientation toward sustainable luxury. The perceived extended self and hedonism exert significantly greater effects on luxury purchase intentions than perceived social conformity and sustainable luxury orientation. Finally, the impact of the perceived hedonism of luxury brands on luxury purchase intentions is significantly greater for Muslims in the UK than in Kuwait, whereas the effect of perfectionism, conspicuousness, and sustainable luxury orientation are greater in Kuwait than in the UK.

### **Statement of Key Contributions**

The present study offers both a theoretical and methodological contribution by studying the drivers of luxury purchases in a general sample of Muslim consumers. The first contribution of this paper is that we propose an integrative framework to investigate the impact of luxury personal and interpersonal values on purchase intentions, building on the work of Vigneron and Johnson (1999, 2004). Based on other research, we add materialism and consumers' orientation toward sustainable luxury. Furthermore, the current study focuses specifically on the Islamic market and examines the drivers of luxury purchases in a general sample of Muslim consumers. We explicitly compare Muslims in Kuwait to those in the UK to understand the impact of cultural values, and individualism-collectivism specifically. Identifying the values that Muslims seek to fulfill through luxury provides important information to marketing practitioners who are targeting this market specially that researches on the impact of luxury values on Muslims' attitude and behavior toward luxury are scarce in the literature. Kuwait is an underresearched market. In addition, comparing how perceived luxury values drive purchase intentions in both markets allows to identify differences and similarities between collectivist and individualist markets. No preceding studies, to our knowledge, have explicitly distinguished between the impact of the perceived personal and interpersonal values of luxury on Muslims' luxury purchasing intentions, or compared the importance of such values between cultures. The results are expected to help luxury brand managers in devising market-specific branding activities to attract targeted consumers by appealing to those values that in that market drive purchases.

## Introduction

Scholars have described several dimensions and values of luxury as drivers to purchase luxury goods. Different studies, however, lack a consistent approach in the values and outcomes they study. The first contribution of this paper is therefore to develop an integrative framework of the perceived values ascribed to luxury (Vigneron & Johnson, 1999; Ajitha, & Sivakumar, 2017; Kapferer & Michaut, 2015) and how they relate to consumers' purchase intentions. Luxury values can roughly be categorized as being either personal or interpersonal (social) values. Personal values, like perfectionism and hedonism, are typically influenced by individuals' personal beliefs and judgments (Vigneron & Johnson, 1999) while interpersonal values, that may include conspicuousness, uniqueness, and group conformity, reflect one's dependence on the way they want to be viewed by others, the groups they like to belong to, and the distance they prefer to maintain with other social classes (Leibenstein, 1950).

The study focuses specifically on the Islamic market, as we witness an increase in Muslims' spending on luxury goods (Arli et al., 2016). Islam motivates its followers to adopt a simple lifestyle, which seems contradictory with the purchase of luxury (Dekhil et al., 2017). At the same time, Islam does not disapprove of luxury in itself as a source of enjoyment and life quality, but rather of vanity and arrogance (Dekhil et al., 2017). Academics (Farah & Fawaz, 2016; Bergmüller, 2013) also claim that the generalized view of the Islamic culture as collectivist where consumers give high importance to status, group harmony and being accepted among their peers is no longer accurate. As the Islamic culture is showing an observable shift toward individualism (Aldulaimi & Zedan, 2012), luxury personal values may increase in importance. Thus, identifying the values that Muslims seek to fulfill through luxury provides important information to marketing practitioners who are targeting this market. There is a scarcity of research on the impact of luxury values on Muslims' attitude and behavior toward luxury. The few studies that exist have mostly been carried out with university students (Arli et al., 2016; Al- Mutawa et al., 2015; Nwankwo et al., 2014) or only female respondents (Mostafa, 2018; Al- Mutawa et al., 2015; AlSerhan, 2015). The present study offers both a theoretical and methodological contribution by studying the drivers of luxury purchases in a general sample of Muslim consumers.

Importantly, previous studies also document inconsistent results between different geographical areas of the Islamic market (AlSerhan et al., 2015; Stępień et al., 2016; Hamelin & Thaichon, 2016). The current research therefore explicitly compares Muslims in Kuwait to those in the UK. We observe that several luxury brands are reducing outlets across Kuwait or even completely withdrawing from the market. This signals that the standard approach to luxury marketing cannot simply be copied to Kuwait. The UK, as an established market with a western, more individualist culture with a substantial Muslim population forms an interesting point of

reference. Comparing how perceived luxury values drive purchase intentions in both markets allows to identify differences and similarities between collectivist and individualist markets. No preceding studies, to our knowledge, have explicitly distinguished between the impact of the perceived personal and interpersonal values of luxury on Muslims' luxury purchasing intentions, or compared the importance of such values between cultures. The results are expected to help luxury brand manager in emerging market-specific branding activities to attract targeted consumers by stressing on market-related luxury purchase drivers.

### **Hypothesis Development**

We propose an integrative framework to investigate the impact of luxury personal and interpersonal values on purchase intentions. The distinction between personal and interpersonal values builds on the work of Vigneron and Johnson (1999, 2004), who developed a scale to measure the dimensions of perceived luxury. The addition of sustainable luxury orientation comes after Kapferer and Michaut's (2015) suggestion to measure sustainability as a socio-environmental criterion in luxury purchases.

#### ***Luxury Interpersonal Values***

##### **a. Perceived Conspicuousness**

Luxury products help conspicuous consumers to present a superior social image among their reference groups due to the fact that such products belong to an exclusive group of people who can afford pricey items (Kenawy, 2013). The attraction to pay high prices for products that reflect consumers' status and wealth is noticed in different Islamic markets (Stępień et al., 2016; Hanzae & Fereshteh, 2013; Vel et al., 2011).

##### **b. Perceived Uniqueness**

Some consumers prefer exclusive, scarce products that are not widely consumed by others to enhance their image as being different (Leibenstein, 1950). This type of consumers "avoid acting like the majority" (Kastanakis & Balabanis, 2014, p.2153). Existing literature highlights that luxury consumers in some regions of the Islamic market are motivated by perceived uniqueness (snob effect) (Stępień et al, 2016; Al-Mutawa et al., 2015; Nwankwo et al., 2014; Hanzae & Fereshteh, 2011).

##### **c. Perceived Social Conformity**

The perceived social conformity value is derived from consumers' tendency to purchase products to satisfy their desire to conform and belong to their social groups. Thus, a product becomes more attractive if it is already bought by members of the reference group (Vigneron & Johnson, 1999). The literature highlights that conformity (also called social status or social value) is a

significant perceived value that enhance Muslims luxury purchase intentions and decisions (Stępień et al., 2016; Al-Mutawa et al., 2015; Nwanko et al., 2014; Vel et al., 2011).

**d. Sustainable Luxury Orientation**

According to Kapferer and Michaut (2015), people positively perceive sustainability and responsibility, and innately expect luxury brands to be sustainable. Nevertheless, they effectively seem to ignore sustainability issues in their luxury purchases. For that reason, there is a need for more research on the importance of sustainability criteria in luxury purchases. This value is not yet examined in previous studies, to our knowledge. We consider this value as an interpersonal factor because of the long-term societal benefit that is typically associated with sustainability. Also, the purchase of sustainable luxury can aid to belong to a social class which can afford these products (Cervellon & Shammas, 2013).

**Hypothesis 1** Muslims' luxury purchasing intentions are influenced by luxury interpersonal values (perceived conspicuousness, perceived uniqueness, perceived social conformity, and sustainable luxury orientation).

*Luxury Personal Values*

**a. Perceived Perfectionism**

Luxury is typically associated with superior quality, usability and performance s (O'Cass et al., 2013; Wiedmann et al., 2009). We use "perceived perfectionism" as a broad concept that not only encompasses superior quality, but can also include other elements such as design or customer services (Monkhouse et al., 2012). Muslim luxury consumers are reported to be influenced by perceived luxury superiority in terms of quality, advantages, and functionality (Mostafa, 2018; Stępień et al., 2016; Al-Mutawa et al., 2015; AlSerhan et al., 2015).

**b. Perceived Hedonism**

Hedonic luxury consumers are emotions-oriented, seek self-rewarding, pleasure and gratification through luxury consumption (Vigneron & Johnson, 2004). They rely on personal opinions and are not vulnerable to interpersonal effects when considering luxury brands (Bian & Forsythe, 2012). The impact of hedonism on Muslims luxury purchasing intentions and consumption is confirmed in the Islamic region (Stępień et al., Hanzaae & Fereshteh, 2013).

**c. Perceived Extended Self**

The "extended self" can be defined as regarding possessions as part of one's self-identity to enhance self-concept (Belk, 1988). Scholars (Vigneron & Johnson, 2004) argue that consumers use the symbolic meaning of luxury products to describe their personalities and communicate

their identities. In the Islamic region, self-presentation, self-identification, and self-image that relate to the extended self, are reported to affect luxury consumption and purchase intentions (Mostafa, 2018; Arli et al., 2016; Teimourpour and Hanzae, 2011).

**d. Materialism**

Materialism is a personality trait that is defined as “the importance a consumer attaches to worldly possessions” (Belk, 1985, p.265). Materialists rely on their possessions to impress others and prove their accomplishments and social standing (Richins & Dawson, 1992). Thus, materialistic consumers show high positive attitude towards luxury products and like to have a lot of luxury in their lives (Wiedmann et al., 2009). In the Islamic literature, materialism is still underresearched in the context of luxury. Studies in Iran (Teimourpour & Hanzae, 2011) and Qatar (Kassim & Zain, 2016) do seem to confirm the influence of materialism on consumers’ interest in and consumption of luxury.

**Hypothesis 2** Muslims’ luxury purchasing intentions are influenced by luxury personal values (perceived extended self, perceived perfectionism, perceived hedonism, and materialism).

***Cross-country Differences in Drivers of Luxury Purchase Intentions***

Islamic societies are generally believed to be more collectivist in nature and characterized by close bonds and shared mutual norms (Khalil, 2012). Nevertheless, recent scholars debate a gradual shift from the traditional lifestyle of Muslims to a more modern lifestyle (Hamelin & Thaichon, 2016). This argument aligns with the suggested dramatic shift of societies in the Arabian Gulf from a pure collectivist nature to more individualistic due to the large number of expatriates (Aldulaimi & Zedan, 2012). Hence, the generalized view of the Islamic culture as collectivist, where consumers give high importance to status, group harmony and being accepted among their peers is no longer accurate, and there is a greater attention to personal factors than used to be (Farah & Fawaz, 2016).

**Hypothesis 3** Luxury perceived personal values have a higher impact than luxury perceived interpersonal values on Muslims’ purchasing intentions towards luxury products.

Additionally, consumers’ luxury value perceptions, purchase intentions, and decisions are claimed to be influenced by cultural factors (Shukla & Purani, 2012). Hence, cultural differences result in diverse luxury perceived values and purchasing intentions between individuals across the borders (Shukla, 2010). It is argued that people in individualist societies are independent, prefer to have loose relationships with others and favor relying on themselves. In contrast, collectivist people build tight relationships with family and group members, are group loyal and follow the group norms (Insights, 2020). Based on self-brand congruity (Sung & Choi, 2012), we



expect that consumers' perceived level of congruity of a luxury product or service with their (intended) self-image, as well as the other personal values under study, will exert a stronger influence on luxury purchase intentions in individualist societies like the UK. On the other hand, the more collectivist nature of the Kuwait society may lead to greater appreciation of social values compared consumers in the UK.

**Hypothesis 4** For Muslims, the relationship between luxury perceived value and purchase intentions is moderated by local cultures.

## Methodology

### *Design and participants*

We set up an online questionnaire to collect data from Muslim respondents above 18 years old who are members of paid consumer panels (YouGov in Kuwait and Prolific in the UK). We selected Kuwait as part of the Islamic region in the Arabian Gulf, that is characterized by its collectivist nature (IDV=25) (Hofstede, 2020), and considered as an important potential market for luxury brands due to the high-income levels (Stępień et al., 2016). The UK is a western individualist (IDV=89) (Hofstede, 2020) society with a substantial Muslim population. The questionnaire was programmed in English and Arabic. An independent researcher back-translated the Arabic version to English to ensure meaning equivalence.

We collected 600 fully completed questionnaires, 300 per country. Non-Muslims were excluded. The Kuwait sample contains more men (76% vs. 46%) ( $\chi^2 (1, N = 600) = 54.3, p = .000$ ) and is slightly older (37Y (std. dev. = 9.17) vs. 29Y (std. dev. = 8.24) ( $\chi^2 (4, N = 600) = 114, p = .000$ ). Most respondents are highly educated (Kuwait: 80% bachelor degree or higher vs. UK: 66%). The sample is relevant, as 58% of Kuwait respondents have purchased or experienced premium luxury brands, and 76% have purchased or experienced mass luxury (in UK, 70% and 88%, respectively).

### *Measures*

Participants first indicated their age, gender, nationality, education, income, religion, and their (not brand-specific) experiences with premium and mass luxury brands (cars, cloths, bags and shoes, home linens, makeup and perfumes, hotels and concierge services). Luxury was defined for participants to include both high-end and mass luxury. Participants then indicated their perceptions of luxury values: perceived extended self, perfectionism, hedonism, and materialism as personal brand values, and perceived conspicuousness, uniqueness, social conformity and sustainable luxury orientation as interpersonal brand values. They then indicated their general (not brand-specific) purchase intention for luxury product categories mentioned above.

Constructs were measured by multi-item 7-point Likert scale for all questions ( $\alpha > .522$ ). For all measures, item factor loadings  $> 0.3$  and eigenvalues  $> 1$ .

## Results

Statistical analyses were conducted via IBM SPSS 26. To test H1 “Muslims luxury purchasing intentions are influenced by luxury perceived interpersonal values (conspicuousness, uniqueness, social conformity, and Sustainable luxury orientation)”, H2 “Muslims luxury purchasing intentions are influenced by luxury perceived personal values (self-identity, perfectionism, materialism and hedonism)”, and H4 “For Muslims, the relationship between luxury perceived value and purchase intentions is moderated by local cultures” a series of moderated linear regression analyses was conducted with the luxury brand values and country (1 = UK) and their interaction as the independent variables and luxury brand purchase intention as the dependent. We ran a separate analysis for each luxury value because a single model including all values caused problems with multicollinearity. We also estimated the bootstrapped 95% confidence intervals (1000 samples) for each luxury brand value to test H3 which states that Luxury perceived personal values have higher impact than luxury perceived interpersonal values on Muslims purchasing intentions towards luxury products (Table. I).

The results (Table. I) highlight that Muslims luxury purchasing intention in both countries is significantly enhanced by consumers perceptions of social values including perceived conspicuousness ( $\beta = .487, p < .001$ ), uniqueness ( $\beta = .266, p < .001$ ), and social conformity ( $\beta = .150, p = .007$ ). The only luxury brand value not demonstrating a significant impact on purchasing intentions is the sustainable luxury orientation ( $\beta = .023, p = .679$ ). Therefore, hypothesis 1 is partially accepted. As for luxury personal values, extended self ( $\beta = .389, p < .001$ ), perfectionism ( $\beta = .584, p < .001$ ), hedonism ( $\beta = .211, p < .001$ ), and materialism ( $\beta = .441, p = .000$ ) are showing significant positive influences on Muslims buying intentions towards luxury. Thus, hypothesis 2 is accepted. In cases where the confidence intervals overlap by 50% or less, beta values are considered statistically significantly different from each other ( $p \leq .05$ ; Cumming, 2009). As expected, the effects of perceived perfectionism and materialism are found to be significantly greater than all interpersonal luxury brand values ( $p < .05$ ). Moreover, the effects of perceived extended self and hedonism are significantly greater than those of perceived social conformity and consumers’ orientation toward sustainable luxury ( $p < .05$ ), but not when compared to conspicuousness and uniqueness. Hence, hypothesis 3 is partially accepted.

Considering those interactions that are significant, the impact of the perceived hedonism of luxury brands on luxury purchase intentions is significantly greater for Muslims in the UK than in Kuwait ( $\beta = .537, P = .015$ ), whereas the effect of conspicuousness ( $\beta = -.627, P = .001$ ),

sustainable luxury orientation ( $\beta = -.436$ ,  $P = .080$ ), and perfectionism ( $\beta = -.235$ ,  $P = .100$ ) are greater in Kuwait than in the UK. Accordingly, hypothesis 4 is partially accepted.

## Discussion

This study attempts to offer new insights into luxury branding since specific consumers' motives to purchase luxury products and services are expected to affect Muslims purchase intentions. Our first theoretical contribution is through the development of a comprehensive framework to measure perceived personal and interpersonal (social) luxury values that are expected to influence purchasing intentions. We adopted Vigneron and Johnson's (1999) framework of perceived luxury dimension and added extended self (as personal value, Vigneron & Johnson, 2004), materialism (as personal value, Wiedmann et al., 2009; Ajitha & Sivakumar, 2017), and sustainable luxury orientation (as interpersonal value, Kapferer & Michaut 2015).

Our findings are in line with some aforementioned studies that confirm the impact of hedonism (Stępień et al., Hanzaee & Fereshteh, 2013), materialism (Teimourpour & Hanzaee, 2011; Kassim & Zain, 2016), conspicuousness (Stępień et al., 2016; Hanzaee & Fereshteh, 2013; Vel et al., 2011), uniqueness (Stępień et al., 2016; Al-Mutawa et al., 2015; Nwankwo et al., 2014; Hanzaee & Fereshteh, 2011), and social conformity (Stępień et al., 2016; Al-Mutawa et al., 2015; Nwankwo et al., 2014; Vel et al., 2011) on Muslims luxury purchase intentions. Although extended self was not explicitly measured previously, we agree with Vigneron and Johnson (2004) that it is a motive for consumers to buy luxury. Results support the importance of self-image (Mostafa, 2018), self-presentation (Arlı et al., 2016), and self-identification (Mostafa, 2018; Teimourpour & Hanzaee (2011), as well as the expression of one's personality, wealth, and success in Muslim's luxury purchase intentions. Furthermore, we do not find a main effect of consumers' orientation toward sustainable luxury which is in line with Kapferer and Michaut's (2015) debate that sustainability is seldom mentioned in the selection criteria of luxury brands and could indicate that luxury sustainability is not a motive for Muslims to purchase luxury products. Accordingly, it is recommended that luxury brands emphasize on communicating luxury values like superior quality, performance, design, services, and brand name, in addition to showing luxury purchases as investments that worth buying and to be inherited for future generations. Besides, we suggest that luxury marketers communicate messages that combine such values with superior social image, distinctiveness, and group belonging associated with luxury consumption. On the other hand, highlighting luxury brands sustainability standards would not be an added value from Muslims' perspective.

Another contribution is the cross-cultural comparison that is not offered in the earlier researches, to our knowledge. This is expected to help in contrasting the impact of luxury perceived values on purchase intentions between collectivist and individualist societies. Results

indicate that consumers' luxury purchasing intentions in both cultures are significantly positively influenced by perceived personal and social values of luxury but not by consumers' orientation toward sustainable luxury. However, differences between cultures are noticed in the importance of pleasure, perfection, showing-off, and luxury sustainability as luxury buying criteria. It is clear that collectivist societies enhance the tendency to consume luxury as a presentation of a superior social image, and/or for brands' superior name, quality, design, services, and sustainability. While in individualist societies consumers are more concerned about their pleasure and enjoyment. Furthermore, perfectionism and materialism are observed to be the most important luxury values from customers perspectives a cross the countries, whereas conspicuousness and uniqueness are showing greater impacts than other social values. Yet, Muslims are significantly less motivated by social values to purchase luxury compared to perfectionism and material values of luxury products. As a result, we confirm that cultural differences are moderating the relationship between some luxury consumption motives and consumers' purchasing intentions.

Findings support the argue that Muslims are shifting toward individualism (Aldulaimi & Zedan, 2012) giving higher attention to individual factors than group fitting as it is used to be (Farah & Fawaz, 2016). Hence, luxury marketers need to highlight the superior social status (conspicuous values), outstanding brand performance (perfection), and brand's sustainability in collectivist societies like the Arabian Gulf region. However, in individualist nations, communicated messages have to call customers attention to emotional factors like enjoyment of luxury experience associated with the possession of high-quality durable luxury products.

### **Limitations and Future Research**

This study originally investigates Muslims' motives to purchase luxury products in two different cultures. Our results can provide guidance to luxury brand managers targeting this segment of consumers. However, findings cannot be generalized for collectivist and individualist market since our sample exclusively comprises Muslims. Therefore, for future researches, we recommend to collect data from larger samples regardless to their religions from several market places for generalization purposes. It would be also valuable to measure consumers' individualism-collectivism to clearly describe to which extent Muslims are shifting from collectivism to individualism.

We also expect that Muslims religiosity and globalization levels to affect their perceptions of luxury values. So, it worth to examine how would such variables influence, if any, perceived values of luxury. Moreover, we have measured Muslims purchase intentions in general luxury items and not brand-specific. It is anticipated that perceived values may differ between brands

and/or product types. Then, future researchers can look at how the values under study drive purchase intentions for specific brands.

In the current study, participants have different experience levels with different luxury products and services (non-brand specific) which is estimated to affect their drivers to purchase luxury. Thus, future studies are suggested to include experience with luxury (premium vs mass) as a control factor to measure how drivers may vary between premium and mass luxury consumers. Similarly, differences can be explored between consumers with luxury experience vs no experience.

**Table 1: Regression Results: Effect of Perceived Luxury Values on Purchasing Intentions**

	R <sup>2</sup>	B	Std. Error	Beta	t	Sig.	95% Confidence Interval	
							Lower	Upper
Constant	.148	3.181	.217		14.659	.000		
Extended self		.372	.050	<b>.389</b>	7.402	.000	.308	.456
Country		.180	.309	.075	.581	.561		
Extended self*Country		-.004	.072	-.008	-.059	.953		
Constant	0.266	1.857	0.260		7.131	.000		
Perfectionism		.531	.047	<b>.584</b>	11.274	.000	.414	.569
Country		.916	.345	<b>.384</b>	2.655	.008		
Perfectionism*Country		-.107	.065	<b>-.235</b>	-1.645	.100		
Constant	.075	3.735	.248		15.062	.000		
Hedonism		.205	.050	<b>.211</b>	4.108	.000	.179	.351
Country		-1.305	.495	<b>-.547</b>	-2.637	.009		
Hedonism*Country		.219	.089	<b>.537</b>	2.451	.015		
Constant	.238	3.273	.180		18.202	.000		
Materialism		.344	.040	<b>.441</b>	8.521	.000	.397	.533
Country		.024	.239	.010	.102	.919		
Materialism*Country		.080	.056	.142	1.412	.158		
Constant	.134	2.072	.315		6.583	.000		
Conspicuousness		.517	.060	<b>.487</b>	8.579	.000	.263	.427
Country		1.510	.429	<b>.633</b>	3.522	.000		
Conspicuousness*Country		-.273	.081	<b>-.627</b>	-3.363	.001		
Constant	.080	3.250	.291		11.166	.000		
Uniqueness		.302	.058	<b>.266</b>	5.176	.000	.204	.365
Country		-.070	.444	-.029	-.158	.875		
Uniqueness*Country		.049	.090	.102	.545	.586		
Constant	.015	3.887	.315		12.325	.000		
Social Conformity		.166	.061	<b>.150</b>	2.696	.007	.036	.214
Country		.416	.469	.175	.887	.375		
Social Conformity*Country		-.060	.090	-.135	-.664	.507		
Constant	.006	4.550	.410		11.106	.000		
Sustainable Luxury Orientation		.033	.080	.023	.414	.679	-.140	.046
Country		1.152	.587	<b>.483</b>	1.962	.050		
Sustainable Lux. Orient*Country		-.203	.116	<b>-.436</b>	-1.756	.080		

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**EXTENDING THE ANIMOSITY MODEL IN TIMES OF THE COVID-19  
PANDEMIC: A CROSS-NATIONAL VALIDATION OF THE HEALTH ANIMOSITY  
SCALE**

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**Keywords:** health animosity, consumer animosity, Covid-19 pandemic, coronavirus, scale development

**Description:** This paper extends the established animosity models by introducing the new concept of health animosity and by developing a health animosity scale, which is empirically validated in a multinational study.

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## **EXTENDED ABSTRACT**

### **Research Question**

The outbreak of the new corona virus tremendously affects individuals' health and personal life. To prevent the spread of this virus, most governments reacted with shutdowns of businesses or with a general lock-down of the whole nation. Consequently, the perspective shifted from a multilateral toward a rather nationalistic view. In certain cases, the spread of this virus even amplified political tensions between national governments as well as consumers' negative attitudes toward specific countries, which were blamed for the spread of the virus. In the international business research, the concept of animosity encompasses factors that influence consumers' negative attitudes toward other countries. The impact of health concerns has been widely neglected in the literature on consumer animosity. To fill this void, this paper extends the established animosity models by introducing the new concept of health animosity and by developing a health animosity scale. The paper empirically validates the new scale in a multi-national study and extends the understanding on consumer animosity, as also natural catastrophes and the reactions of single nations can cause feelings of animosity.

### **Method and Data**

Data was collected online in April 2020 via Mturk. To validate the new developed scale in a cross-national context, participants from four countries in four different continents, namely Brazil, India, Germany and the U.S., were acquired. After conducting an explorative factor analysis with Varimax rotation, two items of the new developed health animosity scale needed to be eliminated due to inconsistent factor loadings across the countries. For ethnocentrism we used four items of Shimp and Sharma's CETSCALE (Shimp & Sharma, 1987) and to measure general animosity, we used two items of Klein et al's animosity scale

(Klein et al., 1998). Participants rated their degree of agreement on a seven-point Likert-scale ranging from 1 (totally disagree) to 7 (totally agree). The final sample consisted of  $N = 215$  participants, 50 for the German sample, 53 for the U.S. sample, 55 for the Indian and 57 for the Brazilian sample.

To assess the validity of the multi-item constructs, we ran confirmatory factor analyses (CFA, with AMOS 26.0). To support the robustness of the analysis, we ran a separate CFA for each country.

### **Summary of Findings**

All items of the new health animosity scale loaded high on the common factor and exceeded the threshold for an acceptable level of .50 (Hair et al., 2014). Fornell-Larcker test (Fornell & Larcker, 1981) confirmed discriminant validity between the three related constructs: ethnocentrism, general animosity and health animosity. To support the robustness of the analysis, we ran a separate CFA for each country, which indicates satisfactory model fit in each country (Germany:  $\chi^2(32) = 47.537$ ;  $\chi^2/df = 1.486$ , CFI = .958, RMSEA = .099; Brazil:  $\chi^2(32) = 69.756$ ;  $\chi^2/df = 2.180$ , CFI = .900, RMSEA = .145; India:  $\chi^2(32) = 52.587$ ;  $\chi^2/df = 1.643$ , CFI = .918, RMSEA = .110; U.S.:  $\chi^2(32) = 40.931$ ;  $\chi^2/df = 1.279$ , CFI = .971, RMSEA = .073). The Fornell-Larcker test was largely supported, except in the Indian sample for health animosity. One possible explanation is the language bias. Whereas the three questionnaires for Brazil, Germany, and the U.S. were translated into the predominant languages of those countries, the questionnaire for India was only translated into English.

### **Statement of Key Contributions**

The new concept of health animosity constitutes consumers' antipathy toward a specific country because of governmental reactions to health-related incidents. We hence extend the existing concept of consumer animosity by clarifying, that even natural disasters, which are

not a result of a specific purpose of the target country—contrary to political, military or economic disputes— can lead to a kind of animosity. Thus, attribution of blame towards a certain country is sufficient to build up animosity feelings. We measured respondents' health animosity toward China, as many consumers worldwide blame China for the Covid-19 pandemic and criticize the government's misbehavior during the outbreak. We successfully validate the new health animosity scale in a multi-country study with four different countries.

For practitioners, this novel concept of health animosity helps understanding consumers' reactions on the Covid-19-pandemic. It is evident that animosity decreases the willingness to buy, especially when it is based on a recent incident. The impact of increased tendencies of animosity due to a novel type of animosity will therefore most probably jeopardize the already weakened global economy. With this new scale it is possible to investigate secondary, negative consequences for the global economy by focusing on the damage of multilateral relationships.

References are available upon request.

## **LOCAL AND GLOBAL ELECTRONIC WORD OF MOUTH: THE CASE OF EUROPEAN PROFESSIONAL SOCCER**

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Keywords: electronic word-of-mouth, social media, global branding, brand strategy

Description: This paper analyzes analyze how the impact of local vs. global electronic word of mouth for professional sports brands impacts various performance outcomes.

### **EXTENDED ABSTRACT**

#### **Research Question**

Professional sports is a massive industry across the globe. While professional sports teams traditionally draw their fans from their local markets, since they are tied to their home stadiums or arenas in a specific location, many sports teams are developing into global brands. One of the primary ways professional sports teams are developing into global brands is through the internet through social media and electronic word-of-mouth (eWOM). Our research seeks to determine how local and global eWOM have differential effects on the performance outcomes of professional sports brands. We also examine the boundary conditions for these relationships such as internationalization, competitive intensity, and performance of the team in each season.

#### **Method and Data**

For this study, we used a variety of data sources. First, we collected data on team characteristics, market values, and league characteristics from the website Transfermarkt. In order to obtain information on eWOM for each team, we utilized the source Infegy Atlas. From this database, we were able to obtain brand-level social media metrics for any specified time segment. Lastly, we also collected additional performance data such as total revenue from the Deloitte Football Money League Reports and brand value data from the Brand Finance Football 50 Reports to utilize in our post-hoc analyses. In total, we collected data for 287 total observations which consists of 32 football teams over a period of 10 years.

To analyze our data, we utilized regression mixed effects models. In order to account for any unobserved heterogeneity caused by temporal biases or club-level biases in our data, we implemented the use of yearly fixed effects and club random effects. First, we ran a main effects model with controls using fixed effects. In addition, to account for the possibility of heteroskedasticity, we then ran our models using clustered robust standard errors. This provides more consistent estimators in our model.

### **Summary of Findings**

We found that world eWOM volume, world eWOM sentiment and number of foreigners on a team was positively associated with market value. In our interaction model, we found evidence that home country volume negatively interacts with foreigners on a team. In addition, we found that home country sentiment positively interacts with win percentage, but negatively interacts with HHI. World volume positively interacts with HHI, as well as foreigners on a team. World sentiment also positively interacts with HHI.

We also ran some post hoc analyses on alternative performance metrics with total revenue and brand value as the dependent variable. Specifically, we found that home country volume was positively associated with both revenue and brand value. World sentiment was positively associated with brand value as well. In addition, the number of foreigners on a team positively interacts with home country sentiment with both revenue and brand value as a dependent variable. The number of foreigners also negatively interacts with home country volume and world sentiment when revenue is the dependent variable.

### **Key Contributions**

This study provides a variety of contributions to the marketing literature. First, it is one of the first studies to our knowledge, to examine the differential impact of local versus global electronic word of mouth. By examining eWOM from the perspective of home country versus global eWOM, we provide evidence that firms can partake in different strategies in promoting eWOM globally or locally to improve their performance, dependent upon a variety of factors. Secondly, we contribute to the international marketing literature by showing how internationalization of eWOM can be effective for firms. For industries such as professional sports, where the product is experiential and tied to a specific location, typical internationalization may not be feasible, but engaging with customers globally is still possible. We show how expanding customer bases through eWOM can help a brand become more global. Third, we contribute to the branding literature by showing how location-specific brands like professional sports teams can expand their customer base through eWOM. We provide evidence that professional sports brands can benefit from eWOM outside of their local markets, which

contributes to their market values, providing managers a strategy to continue to grow in new ways.



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**PRODUCT PORTFOLIO CHARACTERISTICS AND FIRM PERFORMANCE: THE  
MODERATING ROLE OF INTERNATIONALIZATION**

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**Keywords:** product portfolio, internationalization, firm performance, marketing strategy, firm risk, pharmaceutical industry

**Description:** An empirical investigation of product portfolio characteristics on firm performance and the moderating effect of internationalization in pharmaceutical industry.

**EXTENDED ABSTRACT**

**Research Question:** How do product portfolio characteristics (i.e., product portfolio depth, product portfolio breadth, and new product portfolio innovativeness) affect firm revenue and risk? How does the role of internationalization moderate the product portfolio characteristic and firm performance relationships?

**Method and Data:** The sampling frame for this study consists of pharmaceutical firms listed in the United States based stock exchanges in the year 2003. We used multiple sources of secondary data for this study. Pharmaceutical product portfolio information is obtained from MedTrack, an integrated data platform for the pharmaceutical industry offered by Informa PLC. We verified release dates of each product and the therapeutic categories targeted by the product in the dataset using the U.S. Food and Drug Administration (FDA) website. Firm level

characteristics such as degree of internationalization, risk, and firm size are obtained from COMPUSTAT (via Wharton Research Data Services). We compiled a panel dataset of observations 1984 to 2019. Although we have over 300 firms in our database with potentially over 10,000 firm/year observations, in this preliminary analysis we used a randomly selected sample of 20 firms to get preliminary results. Nevertheless, we acknowledge this limitation in the discussion section of our study. We use a spatial and temporal fixed effects interaction model for this study.

**Summary of Findings:** We find some direct effects of a firm's product portfolio on firm performance. Our results suggest that increases in portfolio depth reduce the risk (measured by Altman Z) of a firm. Furthermore, we find that there is a positive effect of two innovation dimensions, which provide preliminary evidence regarding the impact of highly innovative products on boosting total revenues. Importantly, we find several statistically significant interactions between internationalization (measured as FITI) and various facets of a firm's product portfolio. First, we find that the interaction between firm internationalization and product portfolio depth is negatively associated with total revenue. As such, our results suggest that the interactions of product portfolio depth and firm internationalization may have detrimental effects on a firm's success. Therefore, more specialized product portfolios may be advantageous for international firms who wish to curtail potential losses from international expansion. This may compete against the positive effect of reduced risk with a deeper product portfolio. Second, we find some evidence of a positive interaction between update (as opposed to priority) drugs and internationalization on Altman Z. This suggests that firms may be able to curb some degree of risk by creating drugs that already have markets for patients.

**Statement of Key Contribution:** Product portfolio strategy creates a sustained competitive advantage. This issue is crucial for a firm's long-term performance and viability, especially for global companies that compete in multiple geographic markets. While product portfolio strategy and internationalization strategy may independently appear to be of critical importance to practitioners, the potential interaction of these factors have not yet been fully understood. Using panel data to empirically examine the interaction between product portfolio characteristics and internationalization on firm performance, we intend to inform marketing practitioners on the trade-off and/or complementarity between these factors and help them build optimal long-term product portfolio and internationalization strategies.

**SUSTAINABILITY IN MARKETING: REVIEW OF LITERATURE, A NEW  
MARKETING-CENTERED DEFINITION, AND OPPORTUNITIES FOR FUTURE  
RESEARCH**

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**Keywords:** Sustainability, sustainability-motivated marketing, systematic review

**Description:** A systematic review of extant research on sustainability in marketing literature published during 2009-2020, the development of a definition for ‘sustainability-motivated marketing’, and identification of opportunities for future research.

**EXTENDED ABSTRACT**

**Research Questions:**

What are the key implications from research on sustainability published in marketing literature in the last decade? Does the discipline have a marketing-centered definition of sustainability? Which aspects of sustainability have been examined and which warrant further research?

**Method and Data:**

The search for literature on sustainability was conducted using a list of representative keywords of ‘sustainability,’ ‘environment,’ and ‘green marketing’ (c.f. Varadarajan 2017) through electronic databases. We focused on the following leading marketing journals from 2009

to 2020: Journal of Marketing, Journal of Marketing Research, Journal of the Academy of Marketing Science, International Journal of Research in Marketing, Journal of Retailing, Marketing Science, Journal of Consumer Research, and Journal of Public Policy and Marketing. The search records were assessed based on three inclusion criteria. First, the paper needs to be either conceptual or empirical. Consequently, calls for papers and commentaries were excluded. Second, empirical papers must examine sustainability or related constructs as independent, moderator, mediator, or dependent variables. Third, the articles need to have examined the topic of sustainability from marketing's perspective rather than a more general focus on the environment, society, or consumer well-being. After eliminating records that did not qualify the inclusion criteria, the review is based on 85 papers.

### **Summary of Findings:**

Two key findings emerged from our study. First, we organize the key findings from the reviewed studies using an inductively developed organizing framework. The integrated organizing framework reveals that although marketing discipline has allocated a lot more attention to examine sustainability during the last decade, such examination has a dominant focus on a few aspects such as consumer behavior and tactical marketing mix elements, but significantly less on the firm or industry level strategic aspects.

Second, most of the research covered in the review examines sustainability in marketing and its applications without making any attempt to define it or adopting a prior definition. Overall, the review suggests that the existing literature in marketing lacks a commonly accepted definition of sustainability. We address the issue of the unstructured progress of research on sustainability in the marketing literature by developing a new marketing focused definition of

‘sustainability-motivated marketing’. The new definition, which incorporates the core elements of marketing and the key stakeholders of businesses, would provide academics a marketing-centric foundation to generate additional knowledge on sustainability.

**Statement of Key Contribution:**

Over the past decade, research has made considerable progress towards understanding sustainability from marketing’s perspective. However, in the absence of a unifying framework and consensus on a definition of sustainability, it has progressed in an unstructured manner. This study addresses this issue by making two critical contributions to the literature on sustainability in marketing. First, we systematically synthesize findings from studies on sustainability published in leading marketing journals during 2009-2020 using an inductive approach for the organizing framework that embraces its multilevel and multidimensional nature. In doing so, we extend the significant work of Chabowski et al. (2011), which delineated the structure of sustainability research in marketing (1958-2008). Second, we develop a new marketing-centered definition of sustainability in a boundary expansion effort that incorporates the insights from the systematic review of literature, the critical elements of sustainability emphasized in its extant definitions and conceptualizations, and the changes in the substantive landscape of sustainability. Further, we build on our review and delineate important areas for future research, across the five opportunity stages for value creation available to a firm, i.e., upstream, production, downstream, consumption, and post-consumption (Varadarajan 2017), towards developing a marketing-centered wholesome understanding of sustainability.

**THE INFORMATION PARADOX: CAN IGNORANCE EVER BE BLISS? EVIDENCE FROM EMERGING MARKET, SME MANAGERS**

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**Keywords:** managerial perception; internationalization barriers; market knowledge; information paradox; SME

**Description:** This paper investigates the effect of perceived internationalization barriers, perceived foreign customer bias, and perceived international market knowledge on internationalization intention.

**EXTENDED ABSTRACT**

**Research Question**

The prevalent view in internationalization research is that foreign market knowledge motivates internationalization intention (Fletcher et al., 2013). Foreign market knowledge reduces uncertainty associated with internationalization environment (Erramilli, 1991). Thus, increasing managers' confidence of success in that market. But this finding is traditionally applied to multi-national enterprises (MNEs) (Hashai and Almor, 2004). More recent findings

regarding successfully internationalizing SMEs have found an organizational culture that is proactive, risk taking, and innovative (Karami et al., 2020), indicating that successful born-global firms are demoting the importance of incremental knowledge and utilizing their naivety to take risks on the global platform, resulting in a number of highly successful emerging market small/medium enterprises (ESMEs) (McDougall and Oviatt, 1996). But what is the effect of this knowledge when firms do access it? In a MNE it acts to reduce uncertainty and increase confidence, but in an ESME will it act only as a reminder of the staggering odds they face and all the obstacles they must overcome? To address this question, we investigate the moderating effect of knowledge on the relationship between perceived internationalization barriers, perceived foreign customer bias, and internationalization intention.

### **Method and Data**

Data were collected from a sample of Thai SMEs. In the first instance, nine in-depth interviews were conducted with the people in charge of business development at SMEs located in Thailand to inform the conceptual model and complement the literature in developing the constructs. Second, we conducted a survey operationalizing the 4 key constructs (perceived international market knowledge, perceived foreign market bias, perceived internationalization barriers, and internationalization intention) with scales adapted from previous literature (Arteaga-Ortiz & Fernández-Ortiz, 2010; Cicic et al., 1999; Jaffe and Pasternak, 1994). The online survey yielded 150 usable responses from Thai SME managers from a range of industries.

### **Summary of Findings**

First, a CFA was performed to test the reliability and validity of all study constructs. The reliability and validity of each construct was confirmed. Second, our hypotheses were tested



using both structural equation modelling (SEM) and a series of ordinary least squares (OLS) regressions. In relation to direct effects, we found support for the negative effect of 1) perceived foreign market bias on internationalization intention and 2) perceived international market knowledge on internationalization intention. However, we did not find support for the negative effect of perceived internationalization barriers on internationalization intention. In relation to moderating effects of perceived international market knowledge, we firstly find a negative interaction effect of perceived internationalization barriers on the relationship between perceived international market knowledge and internationalization intention; when perceived barriers are high, increased knowledge motivates internationalization rather than deterring it—reversing the main effect. We secondly show that perceived foreign customer bias is resistant to the blissful ignorance effect (BIE), with perceived foreign customer bias consistently showing a negative impact on internationalization intention regardless of internationalization knowledge.

### **Key Contributions**

Traditional models posit that internationalization intention grows incrementally because of greater knowledge and experience (Johanson and Vahlne, 1977). However, a surge in rapidly internationalizing firms flouting these traditional trends has led to a complementary theoretical perspective—the born global firm (Oviatt and McDougall, 1994). We contribute to this stream by providing a novel perspective on the role of knowledge in this unique theoretical context. Specifically, we find that, contrary to the motivating effect of knowledge posited in incremental models, for more disadvantaged firms, knowledge of the barriers and staggering odds they face actually deter internationalization.

Consequently, our results extend the born-global reasoning to support the presence of an ignorance is bliss phenomenon in disadvantaged firms. That is, ignorance to potential internationalization barriers allows for a less inhibited decision-making process, and more risky internationalization ventures. However, we also find a boundary condition for this effect; that perceived internationalization barriers have a positive effect on internationalization intention when perceived internationalization knowledge is high. Thus, showing that the traditional view of knowledge as a competitive advantage is activated only during conditions of high perceived internationalization barriers. Thus, providing novel theoretical contributions to the growing field of born global firms.

## **WHAT DOES IT MEAN TO BE SATISFIED WITH LIFE? MEASUREMENT AND MEANING ACROSS CULTURES**

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Keywords: Life satisfaction, measurement invariance, cross-cultural research

Description: The present study establishes measurement invariance of the life satisfaction scale (LSIZ) using samples from Korea, China, and the United States.

### **ABSTRACT**

The present study attempts to establish measurement invariance of the life satisfaction scale (LSIZ) using samples from Korea, China, and the United States. The process involved carrying out a series of confirmatory factor analyses with progressively more restrictive constraints. Results show that the life satisfaction scale is a reliable scale and could be used in culturally diverse countries.

### **INTRODUCTION**

Over two hundred forty years ago, when the founding fathers signed the Declaration of Independence of the United States of America, they recognized that happiness is a fundamental right of all individuals. The idea that happiness is our fundamental right has been accepted universally and some countries have accepted policies to measure and track happiness of its citizens on a formal/regular basis (e.g., Bhutan). Psychologists have generally studied happiness within the broader domain of subjective well-being (SWB) (Diener 1984; Diener et al. 1999; Iyer and Muncy 2016; Jiang et al, 2020; Proctor, Linley, and Maltby 2009). It is recognized that SWB is a multidimensional concept that incorporates emotional components, domain specific satisfaction, and overall generalized satisfaction with life (Proctor, Linley, and Maltby 2009).

However, as noted by Proctor, Linley, and Maltby (2009), many scholars have used the components of SWB interchangeably with happiness. Moreover, the term “happiness” has not been consistently defined in the literature and has been used to mean many closely related but different things (Proctor, Linley, and Maltby 2009). It can be argued that as a complex construct, satisfaction with life could be driven by individual, contextual, social, and cultural factors. And most importantly, social and cultural factors could play a significant role in determining happiness and life satisfaction, particularly as they relate to consumption. For example, while it may be acceptable and desirable to consume certain foods in one country, the same food items may not be acceptable in others. Therefore, it is important to understand life satisfaction of people in the context of society and culture. This research attempts to explore the concept of life satisfaction in different cultures to gain a better understanding of satisfaction and its meaning across cultures. Particularly, this research explores the measurement and meaning of life satisfaction across three different cultures. To serve the end, we examine measurement invariance of the Life Satisfaction Index – Z scale, commonly referred to as the LSIZ scale (Wood, Wylie, and Sheafor 1969), in the United States and two Asian countries – China and Korea.

## **BACKGROUND**

### ***CONCEPT OF LIFE SATISFACTION***

Life satisfaction, which is a subset of the more general concept of well-being, has been of interest to researchers and public policy makers for many years. Based on a 30-year review of the global subjective well-being (SWB) literature, Diener et al. (1999) define SWB as a “broad category of phenomena that includes people’s emotional responses, domain satisfactions, and global judgments of life satisfaction” (p. 277). They argued that SWB ought to be viewed as a

multidimensional construct based on people's cognitive and affective self-evaluations. Diener et al. (1999) also suggested that SWB ought to be considered as a construct that can fluctuate up or down for an individual, depending on his or her self-perceived conditions (e.g. personal success and/or failure) in several disparate domains such as work, family, leisure, health, finances, membership groups, and self (Diener et al. 1999; Kim and Chatterjee 2019).

Several individual level factors (learning, personality, motivation, and attitudes) have been found to be associated with measures of SWB and life satisfaction. For example, in a study of older adults in England, Jenkins and Mostafa (2013) found that informal learning of skills like music, art, and gym/exercise are positively associated with measures of overall well-being. Similarly, in a study of Filipino elderly, Chua and deGuzman (2014) found that those elderly who participated in old-age learning programs had a higher level of life satisfaction compared with those who did not participate in these programs. Overall level of education has also been found to be positively related to life satisfaction (Dittmann and Goebel 2010). In another study, however, when education-job gap exists, the relationship has been found to be negative (Frank and Hou 2019)

Iwasaki's (2007) conclusion that consumption of leisure more than likely leads to an individual's enhancement of life-meaning and life-quality and thereby helps that individual to obtain a higher level of life satisfaction (without too much effort) suggests that consumption of certain leisure time-related goods and services can bring this about as well. This implies that it is worthwhile to study in a cross-cultural context the role life-satisfaction valuation plays in necessary consumer activities (either as a form of happy leisure activity, or alternatively as an unpleasant costly necessity from a consumer behavior perspective) or other socially interactive behaviors that consumers engage in because they believe such behaviors may lead to higher levels of life satisfaction. It has been suggested that there are cultural differences in life satisfaction that

cannot be explained by differences in objective criteria (Diener, Inglehart, and Tay 2013). Diener et al. (2013) also note that life satisfaction in Latin American societies are higher than that in Confucian cultures. However, before a judgment can be made if the observed differences represent true differences in life satisfaction, it is important to ascertain that the concept of life satisfaction and its meaning in different cultures is consistent and comparable.

The study presented in this paper relies on surveys conducted in three culturally diverse societies: The United States, South Korea, and mainland China. Data collected enabled establishment of measurement invariance of a scale to measure life-satisfaction.

## **METHOD**

### ***Data Collection***

The data were collected from two Asian countries: Korea and China, and the United States. The data collection guideline had been established and the standard set of criteria was utilized to screen the responses. For the Korean sample, researchers collaborated with a local medium-sized commercial research firm. Out of 666 completed responses, 464 responses satisfied the standard criteria. In China, researchers successfully arranged with a local postal service for data collection. Out of the 549 responses, 321 responses were complete and met the criteria. For data collection in the U.S., students enrolled in marketing classes in a private university in the northeast region of the U.S. collaborated in collecting data from nonstudent local residents. Completed responses were received from 423 respondents. Of these, 265 met the study criteria and were included in the study.

Back translation was used to check the accuracy of the translations in both Korean and Chinese from the English version. Disagreements between translators and back translators were

resolved by mutual discussion. Despite some minor inter-country variations, the samples were mostly balanced in terms of selected demographics.

### ***Measures***

Although the survey instruments had a number of items concerning various consumer issues, this study focuses on the life satisfaction scale (LISZ) developed by Wood et al. (1969). The original instrument has 14 items. Respondents were asked to indicate on a 5-point LIKERT scale, the extent to which they agreed with each statement. The initial review of inter-item correlations showed that four items did not correlate with the rest of the scale across some cultures. The four items were dropped from the scale for further consideration. The selected ten items are presented in the Table 1. The mean and standard deviations of the raw life satisfaction scale were as follows: Korea = 30.69, SD = 5.84; China = 35.74, SD = 6.19; USA = 34.60, SD = 5.90.

**Table 1: *Life-Satisfaction Scale Items***

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1.	As I look back on my life, I am fairly well satisfied.
2.	I think back over my life; I did not get most of the important things I wanted.
3.	I've gotten pretty much what I expected out of life.
4.	I have gotten more of the breaks in life than most of the people I know.
5.	Most of the things I do are boring or monotonous.
6.	These are the best years of my life.
7.	I am just as happy as when I was younger.
8.	The things I do are as interesting to me as they ever were.
9.	Compared to other people, I get down in the dumps too often.
10.	As I grow older, things seem to be better than I thought they would be.

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## **ANALYSIS AND RESULTS**

### ***Measurement Invariance of Life Satisfaction***

The analytical procedure that had been recommended by Steenkamp and Baumgartner

(1998) was used to assess measurement invariance of the life satisfaction scale. Life satisfaction was conceptualized as a single-factor construct with ten indicators. LISREL 8 (Joreskog and Sorbom 1993) was used to analyze the sequential set of models according to the procedure. At each step, the assessment of the overall fit of the model was based on multiple indicators as recommended by Bagozzi and Yi (1988). In addition to traditional indicators,  $\chi^2$  and associated significance level, root mean square error of approximation (RMSEA), consistent Akaike information criterion (CAIC), comparative fit index (CFI), normed fit index (NFI), and non-normed fit index (NNFI) were also used. Generally, a value of 0.9 or above for CFI, NNFI, and NFI and a value of .05 or less for RMSEA indicate a good fit of the model. Also, for situations involving a comparison of models, the model with a lower value for CAIC is considered better. Unlike the analysis done by Steenkamp and Baumgartner (1998), means of the latent construct and means of individual items were not so important in this analysis because the samples across the three countries were not matched based on demographic and other characteristics.

As shown in Figure 1, the test of the equality of covariance ( $\Sigma$ s) yielded a  $\chi^2$  of 480.47 with 110 degrees of freedom ( $p < .001$ ), a RMSEA of 0.097, CAIC of 1146.30, CFI of 0.88, NFI of 0.86, and NNFI of 0.86. The results suggest that the covariances are not identical across the countries, warranting further investigation regarding measurement invariance.

The first test was made for configural invariance, based on the assumption that similar factor structure would be existing across the three countries. Although the  $\chi^2$  for this analysis was significant ( $\chi^2 = 397.06$ ,  $df = 105$ ), other indicators suggest an acceptable fit of the model (RMSEA = 0.092, CAIC = 1128.34, CFI = 0.91, NFI = 0.88, NNFI = 0.88). All factor loadings were significant in all countries. Thus, it can be concluded that the life satisfaction scale had the same factor configuration across these three countries.



**Figure 1: Model Comparison**

	$\chi^2$	df	RMSEA	CAIC	CFI	NFI	NNFI
Equality of $\Sigma^s$	480.47	110	0.097	1146.3	0.88	0.86	0.86
Configural Invariance	397.06	105	0.092	1128.34	0.91	0.88	0.88
Full metric Invariance	432.78	123	0.086	1015.91	0.9	0.87	0.89
Full Factor variance invariance	did not converge						
Partial Factor variance Invariance	432.92	124	0.086	1008.01	0.9	0.87	0.9
Full Error Variance Invariance	695.12	144	0.11	1103.89	0.83	0.79	0.84
Final Partial Error Variance Invariance	397.95	129	0.075	904.19	0.92	0.88	0.91

The next step in the analysis was to test for full metric invariance by constraining the factor loadings to be invariant across countries. This model produced a  $\chi^2$  of 432.78 ( $df = 123$ ), RMSEA = .086, CAIC = 1015.91, CFI = 0.90, NFI = 0.87, and NNFI = 0.89. The increase in  $\chi^2$  from the configural invariance model was significant ( $\Delta\chi^2(18) = 35.72, p < .01$ ), although other indicators suggest an increase in the fit of the model. We also wanted to see if relaxing some of the constraints on factor loading would improve the model. To do that, modification indices were examined. However, none of the modification indices for factor loadings across the three countries was high enough (above 5.0) to warrant a test of the partial metric invariance model. Thus, the data supported full metric invariance of the scale across the three countries.

The next step involves establishing scalar invariance. However, it was not relevant for the present study for two specific reasons. First, the samples used in the study were not matched in terms of age and other demographic variables, which might have an impact on life satisfaction.

Therefore, it was expected that the samples could differ in terms of their latent means (life satisfaction). Second, this study focused only on assessing the value of the method and the measurement invariance of the scale. It did not attempt to compare mean life satisfaction across countries. Therefore, scalar invariance was not tested.

The full factor variance invariance model was tested next by constraining factor variances to be invariant across the three countries. However, this hypothesis was rejected, as the data failed to converge on a solution. However, to test if a model with partial factor variance invariance would converge and produce an acceptable fit of the model, the variance for one country was set free at a time and the model re-estimated. This produced an acceptable fit of the model with the variance for the U.S. sample set free ( $\chi^2 = 432.92$ ,  $df = 124$ ,  $RMSEA = 0.086$ ,  $CAIC = 1008.01$ ,  $CFI = 0.90$ ,  $NFI = 0.87$ ,  $NNFI = 0.90$ ). Moreover, the increase in  $\chi^2$  for the partial factor variance invariance model as compared with the full metric invariance model was not significant ( $\Delta\chi^2(1) = 0.14$ , n.s.). Thus, it can be concluded that the life satisfaction scale exhibited partial factor variance invariance.

The final set of analyses focused on establishing error variance invariance. First, the error variances across all the countries were constrained to be equal. This produced a significant increase in chi-square for the full error variance invariance model as compared with the partial factor variance invariance model ( $\Delta\chi^2(20) = 262.20$ ,  $p < .01$ ), leading one to conclude that the life satisfaction scale did not exhibit full error variance invariance. Modification indices were examined to see if the model fit could be improved by setting some of them free. A series of analyses was carried out by freeing up the error variance that had the highest modification index (one error variance was freed at a time). The final model, after freeing up 15 variances produced a  $\chi^2$  of 397.95 ( $df = 129$ ). The decrease in  $\chi^2$  for the partial error variance invariance model as compared with the partial factor variance invariance model was significant ( $\Delta\chi^2(5) = 34.97$ ,  $p <$

.01), suggests that the partial error variance invariance model was a better fit. A review of other indicators also suggests an acceptable fit of the model (RMSEA = 0.075, CAIC = 904.19, CFI = 0.92, NFI = 0.88, NNFI = 0.91). Important indices also suggest that the partial error variance invariance model produced the best fit of all the models examined (the lowest value for CAIC and high values for other indices like CFI, NNFI, and NFI). The parameter estimates for the final model (partial error variance invariance model) and the reliability estimates for three countries are presented in Figure 2. As can be seen, the reliability ( $\rho_{\eta}$ ) of the life satisfaction scale was above 0.90 in all three countries. The average variance extracted ( $\rho_{vc(\eta)}$ ) for the three countries was also above 0.50, suggesting that the life satisfaction scale exhibited acceptable reliability for use in these three countries.

## **DISCUSSION**

This study focuses on the life satisfaction scale (LISZ) developed by Wood et al. (1969) and modified the scale so the scale can be used for cross-cultural consumer studies. The study presented in this paper relies on surveys conducted in three culturally diverse societies: The United States, South Korea, and mainland China. Data collected enabled establishment of measurement invariance of a scale to measure life-satisfaction. The life satisfaction scale exhibited acceptable reliability for use in these three countries.

This study attempted to establish measurement invariance of the life satisfaction measure in Korea, China, and the United States. While the results indicate that the measure is a valid and reliable measure in all three countries, the further research is needed to assess the correlates between the life satisfaction scale and key consumer variables in the cross-cultural settings. The interpretation of life satisfaction might be different in different countries. People's lives are bounded by culture and the extent to which they are satisfied with life is therefore culture bound.

This can be inferred by the pattern of correlations of life satisfaction with other variables.

**Figure 2: Estimation Results for Life Satisfaction Data**

	Korea	China	USA
<b>Factor Loadings</b>			
LS1	1.00	1.00	1.00
LS2	1.17	1.17	1.17
LS3	1.16	1.16	1.16
LS4	1.44	1.44	1.44
LS5	1.43	1.43	1.43
LS6	0.77	0.77	0.77
LS7	1.27	1.27	1.27
LS8	0.80	0.80	0.80
LS9	0.47	0.47	0.47
LS10	0.87	0.87	0.87
<b>Error Variances</b>			
LS1	1.10	1.64	1.10
LS2	1.08	1.08	1.08
LS3	0.75	0.75	0.75
LS4	0.66	0.66	0.24
LS5	0.47	1.07	0.47
LS6	0.87	1.53	0.87
LS7	0.74	0.74	0.74
LS8	0.83	0.83	0.83
LS9	0.91	1.36	0.91
LS10	0.81	0.81	0.81
Reliability ( $\rho_{\eta}$ )	0.925	0.907	0.929
Average variance extracted ( $\rho_{vc(\eta)}$ )	0.586	0.527	0.599

Note: Table entries are maximum likelihood estimates. All parameters are significant at the  $p < .05$  level.

Factor loadings were constrained to be identical across groups in the final model.

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## WHAT DRIVES ROYALTY RATES IN INTERNATIONAL FRANCHISING?

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Keywords: International Franchising, Contract Design, Signaling Theory,  
RoyaltyRate

Description: We analyze the (interactive) effects of economic environment and contract exclusivity as well as cultural environment and franchising fee on the agreed-on royalty rate in international franchising contracts.

### EXTENDED ABSTRACT

#### RESEARCH QUESTION

Despite considerable advances regarding our understanding of factors that drive market entry decisions and partner selection, insights into the process of establishing an international franchise contract (*contracting*) remain scarce. Specifically, it is not well understood which factors determine the royalty rate that franchisor and franchisees agree on. This is surprising given the pivotal role that the royalty rate plays for both franchisors' (revenues) and franchisees' (costs) profitability and, thus, financial viability of the mutual partnership.

We address this gap by drawing on the signaling theory, theorizing that royalty rates are determined based on two major macro-environmental factors, market size (reflecting the

economic environment) and uncertainty avoidance (reflecting the cultural environment), and that franchisors use certain contractual elements (contract exclusivity and franchising fees) to manage these macro-environmental factors. Specifically, we hypothesize that:

H1: A target market's economic potential is positively related to the accepted royalty rate.

H2: A franchisee's culture's degree of uncertainty avoidance is negatively related to the accepted royalty rate.

H3: Contract exclusivity negatively moderates the relationship between market size and royalty rate.

H4: Franchising fees negatively moderate the relationship between uncertainty avoidance and royalty rate.

#### **METHOD AND DATA**

We analyze a unique data set of 115 international franchising contracts from a commercial database that compiles agreements from the U.S. SEC. The contracts capture 82 unique franchisor-franchisee-country combinations, franchisors from 20 different countries, franchisees from 10 different countries, and contracts from 34 different industries.

We utilize the following contract-related variables: The *royalty rate* represents the percentage of net sales payable to the franchisor. *Contract exclusivity* refers to the exclusive right to operate in a territory. *Franchising fee* represents an upfront payment to start the franchise. We capture the *duration* of each contract and the decade in which it has been concluded.

We assessed World Bank data on the share of GDP value added by Service as proxy for economic potential of the target market. To measure franchisees' uncertainty avoidance, we use corresponding data from the GLOBE project.



The baseline model (M1) includes the control variables contract duration and decade, the main effects model (M2) further market size and uncertainty avoidance, and the full model (M3) further interactive effects between market size and contract exclusivity, and uncertainty avoidance and franchising fee. All models were estimated using ordinary least squares regressions, using clustered-robust standard errors to account for country dyad clusters.

### **SUMMARY OF FINDINGS**

Results show that market size significantly increases royalty rates (support H1). Franchisors face higher opportunity costs by entering large markets vs. small markets via non-investment modes. They demand higher royalty rates to adjust their expected returns accordingly.

Results show a moderating effect of contract exclusivity on the effect of market size on royalty rate (support H2). Granting exclusivity acts as an *intent signal* that incentivizes a franchisee to align his behavioral intentions. With increasing market size, the franchisee's engagement becomes more valuable, thus the positive effect of market potential on royalty rates is weakened if contracts grant territorial exclusivity.

Results show that uncertainty avoidance decreases royalty rates (support H3). Franchisees from cultures characterized by a high degree of uncertainty avoidance are more predictable in terms of their compliance, resulting in less need to hedge against moral hazard. Franchisors are willing to accept lower royalty rates.

Results show a moderating effect of franchising fee on the effect of uncertainty avoidance on royalty rate (support H4). Requesting a franchising fee acts as a *quality signal*, as it conveys the franchisor's assessment of the franchise's value. This quality signal mitigates uncertainty, the negative effect of uncertainty avoidance on accepted royalty rate is diminished.

### **STATEMENT OF KEY CONTRIBUTIONS**

Regarding the discipline's existing knowledge, we offer two key insights. First, although prior studies have proposed that environmental factors play a role in determining an appropriate royalty rate, so far, these claims have not been empirically supported. By analyzing a unique dataset containing 121 international franchising contracts we provide this requested empirical evidence. Second, our study is the first to analyze the interaction of environmental characteristics and contractual elements. By taking a signaling theoretic perspective, we shed light on how contractual elements can be employed to signal specific intentions or qualities. Regarding the interaction between uncertainty avoidance and franchising fee, we offer recommendations for future research.

Regarding managerial implications for franchise managers, we provide two key insights: First, our findings provide empirical support for the relevance of the economic and cultural environment in determining appropriate royalty rates. Data on market size and uncertainty avoidance are easily accessible and should inform managerial decision-making. Second, we contextualize the influences of these macro-level determinants by demonstrating the signaling effect of certain contractual mechanisms that are at the disposal of the franchisor (i.e., contractual exclusivity, and franchise fee). By doing so, we introduce an unaddressed, important perspective on the strategic use of contract elements.

# **Services, Retailing and Entertainment**

## **A CONCEPTUAL FRAMEWORK FOR ANALYZING CUSTOMER EXPERIENCE IN ACCESS-BASED SERVICES**

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**Keywords:** customer experience; access-based services; sharing economy; triadic businesses

**Description:** This paper aims to develop a conceptual framework for customer experience in access-based services and present a broad set of future research areas.

### **EXTENDED ABSTRACT**

#### **Research Question**

Increasing number of businesses today consider customer experience as central to firm competitiveness (Becker & Jaakkola 2020; CX Statistics 2020). This comes at a time when increasing number of businesses are based on access-based services (ABS). However, ABS are typically triadic in structure, with differentiated roles and responsibilities between ABS firms and independent, profit-maximizing service providers. Existing frameworks of customer experience (CX), which focus mainly on dyadic firm-customer encounters, are insufficient to understand the scope of customer experience in ABS settings. A framework for customer experience in ABS will help businesses better align their strategies to improve customer experience. This study seeks to answer the following questions:

1. What are the characteristics of access-based services and how do they impact customer experience?
2. What are the drivers of customer experience in access-based services?

## **Summary of Findings**

Our study identifies four core characteristics of ABS, which past research has not adequately brought out: resource circulation, dynamic network of actors and resources, co-production of service, and platform mediation. These characteristics can impact CX negatively and positively, and firms can address or tap these by putting creating value to the customer. We conceptualize CX drivers as value creation elements from the ABS entities. The firm creates value by providing benefits derived from the core characteristics of ABS. We identify signalling mechanisms (signalling good vs. average providers), social validation mechanisms (reviews and ratings from peers), guarantees and assurances (verifications to foster trust), technological robustness, and customer redressal mechanisms (addressing service failure issues) as firm-related drivers of CX. Service providers create value to customers by providing resources (tangible or intangible resources), interactions (interpersonal interactions which can lead to delight or outrage), processes (actions taken to deliver the service) and ambiance (creating amicable perceptions of the service surroundings). Additionally, we identify, price value (value derived for the price paid), previous customer experience, consumer moderators (e.g., mood, goal orientation), and exogenous factors (e.g., location, culture) as other drivers influencing customer experience.

## **Statement of Key Contributions**

Our study would significantly contribute to both the emerging areas of CX and ABS literature. Our framework identifies the drivers of CX from a firm and a service provider perspective in ABS. This provides an opportunity to establish relationships between specific actions that firms, and providers can take for influencing CX. For instance, managers of ABS firms can use our framework to understand the impact of different signalling and social validation mechanisms on CX. Similarly, ABS firms can choose better strategies to improve

provider's performance with a better understanding of the service provider's CX drivers. Our work can also be extended to triadic business structures akin to ABS.

Note: References are available upon request.

**A MULTI-LAYER MODEL OF CONSUMER PERCEPTIONS DURING COVID-19:  
MARKET RECOVERY STRATEGIES FOR CRUISE BUSINESSES**

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**Keywords:** Leisure constraint theory, prospect theory, cruise tourism, crisis communications, market strategy

**Description:** The study aims to identify consumer perceptions of the cruise industry amid the COVID-19 pandemic and seeks to provide market recovery strategies for cruise business.

**EXTENDED ABSTRACT**

**Research Question**

The COVID-19 pandemic has caused global economic damage since March 2020. According to June 2020 Global Economic Prospects, global real domestic product (GDP) expects a 5.2% decline in 2020 (World Bank, 2020). The incidence of multiple outbreaks on cruise ships during the COVID-19 pandemic illustrates the vulnerability of confined cruise travel. Thus, the Centers for Disease Control and Prevention (CDC) discharged the No Sail Order in March 2020 and has advised U.S. travelers to defer all cruise travel (CDC, 2020). How does the COVID-19 pandemic affect the cruise industry? Has the COVID-19 pandemic impacted consumer's perceptions? What marketing strategies could help cruise companies to recover from this pandemic?

## **Method and Data**

This study followed a mixed-method research design since it could produce representative, reliable and applicable results (Hair, Money, M., & Samouel, 2007). A qualitative pre-research focus group with university professors and managers from cruise companies aims to explore relevant trends and the industry's needs and evaluate survey instruments. Researchers developed the quantitative survey for investigating the external factors (leisure constraints) and travelers' behaviors, attitudes, and post-crisis intentions of the source market during COVID-19, based on literature review and the results of the focus group. The sample was comprised of North American consumers who had travel experience(s) in their lifetime. The survey was approved by Institutional Review Board (IRB) and distributed on Amazon MTurk in April. In the end, 759 valid surveys were collected. Descriptive analysis was applied to the demographic data, and structural equation modeling (SEM) was adopted to test the hypotheses.

## **Summary of Findings**

To detect scale dimensionality, measurement items were analyzed using an exploratory factor analysis (EFA) with the maximum likelihood and varimax rotation. Factor perceived crisis management, negativity bias, and attitude-trust were identified in EFA. Confirmatory factor analysis (CFA) was implemented to assess the overall model fit of the measurement model. The goodness-of-fit indices in this study suggest that the measurement model fit the data well ( $\chi^2 = 1442.937$ ,  $df = 325$ ,  $p < .001$ ,  $RMSEA = 0.067$ ,  $CFI = 0.924$ ,  $NFI = 0.904$ ). Both the Cronbach's alpha and composite reliability were above 0.80, and the average variance extracted (AVE) for each construct ranged from 0.556 to 0.741. The square root of AVE for each construct was greater than its correlation with all other constructs. The structural model provided satisfactory model fit indices:  $\chi^2 = 1460.849$ ,  $df = 335$ ,  $p < .001$ ,  $CFI = 0.923$ ,  $NFI = .903$ ,  $RMSEA = 0.067$ .



Leisure constraints positively influenced negativity bias; attitude-trust was positively affected by perceived crisis management and negatively impacted by negativity bias. Further, there was a positive relation between attitude-trust and post-crisis intention. However, the statistic showed that negativity bias positively influenced consumers' post-crisis intention.

### **Statement of Key Contributions**

Several theoretical and managerial implications were provided. Firstly, new theoretical knowledge is offered to understand how perceptions change in different market segments during COVID-19. Secondly, the study delivers new outcomes by combining and extending the leisure constraints theory and prospect theory, opening up a new research line for tourism scholars by investigating two unique variables (leisure constraints and perceived crisis management) that could impact vital behavioral outcomes during the crisis. Lastly, this study provides detailed market recovery strategies to the cruise industry by investigating consumer behaviors and consumer communication processes. The results of this study suggest that cruise companies would find benefits in motivating both new and repeat consumers based on their different consumption behaviors. The COVID-19 pandemic can be seen as an adverse event associated with substantial negative emotional judgment. Cruise companies may want to connect with potential new consumers who do not have cruise experience and convey detailed information to build trust. Further, COVID-19 financial status moderated the relationship between perceived crisis management and attitude-trust. Financial-affected consumers requested more communication than non-affected during the pandemic, but their travel intention is higher than non-affected consumers due to escapism. To target financial-affected consumers, marketers could provide promotions and discounts.

*References are available upon request.*

**AUGMENTED-REALITY INTERACTIVE SERVICE TECHNOLOGY USAGE: THE EFFECTS OF TECHNOLOGY QUALITY AND TECHNOSTRESS ON POST-USAGE RESPONSES**

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Keywords: augmented-reality, interactive self-service technology, technology quality, technostress

Description: This study investigates how quality of self-service augmented-reality interactive technologies will cause users' technostress and further lead to their post-usage satisfaction and continual usage intention.

**EXTENDED ABSTRACT**

**Research Question**

The prosperity of e-commerce creates fierce competition among both online and offline retailers. Due to relatively less points of contact with consumers, online retailers must be able to engage their customers through more effective ways of using new product visualization and interactive technologies to provide more concrete information to customers (Kim and Forsythe, 2008a), such as self-service augmented-reality interactive technologies (SS-ARIT). However, SS-ARIT faces the issue whether consumers are able to master such type of

technologies and if they will be frustrated and discouraged for continual use. Thus, it is important to identify the factors that affect consumers' adoption of these sensory-enabling technologies (Kim and Forsythe 2008b; King and He, 2006). It is even more imperative to identify the factors that cause discomfort associated with SS-ARIT usage. Therefore, this study intends to gain insight into the rapidly developing area of self-service augmented-reality interactive technologies for online shopping, and more specifically, the online virtual dressing room, by taking a deeper look into how SS-ARIT quality will cause users' technostress and further lead to their post-usage responses including satisfaction and continual usage intention. Finally, the moderating effect of transformational (active) coping on the technostress influence is also examined.

### **Method and Data**

The interactive technology used for the study comes from the following link: <http://webcamsocialshopper.com/demos>. It is an ARIT used by online clothing vendors to provide a virtual dressing room service. A convenient sampling method was employed to recruit university student samples to partake in the study. The participants were first shown an online instructional video that familiarizes users with the Virtual Try-On software. So as to not be intrusive, we provided a private setting for participants to experience the virtual dressing room service without time limit, and then instructed them to fill out the study's questionnaire. The questionnaire was designed based on the related literature. We used

SSTQUAL scale (Lin and Hsieh, 2011) for assessing the perception of SS-ARIT quality.

After data collection, SEM procedures by SmartPLS were performed to examine the hypotheses.

### **Summary of Findings**

The valid responses were collected from 242 participants, 48.8% male and 51.2% female. Composite reliability for constructs all exceeded the suggested threshold of .80 in all cases, indicating a satisfactory reliability. AVE values for the constructs all exceeded .50, confirming a satisfactory convergent validity. All of the values of the square root of AVE for the measures on the diagonal exceeded the correlations among the measures of the diagonal. The discriminant validity was thus satisfactory.

The results showed that SSTQUAL negatively influenced Technostress ( $\beta = -0.45, p < 0.01$ ). Technostress negatively influenced Satisfaction ( $\beta = -0.38, p < 0.01$ ), and Continual Usage ( $\beta = -0.35, p < 0.01$ ). Transformational coping exhibited two moderating effects: a strongly positive moderating effect with technostress on satisfaction ( $\beta = 0.23, p < 0.01$ ) and continual usage ( $\beta = 0.22, p < 0.01$ ). Overall, the direct-effect model explained 21% of the variance in satisfaction and 17% of the variance in continual usage. When including the moderating effects of transformational coping, a larger proportion of the respective variance in satisfaction ( $R^2 = 0.28$ ) and continual Usage ( $R^2 = 0.22$ ) were exhibited.

### **Key Contributions**

Technology is improving so rapidly, and many users may become frustrated with what seems to them to be inferior products or services, even if they are free. Therefore, assessing levels of technostress and their effects could be the first step in developing effective methods for dealing with the technostress. To fill such void, this research contributes to the self-service technology literature and the practical applications in the emerging area of self-service augmented-reality interactive technologies by adding a theoretical framework showing how technology quality, technostress and the coping moderator will lead to consumers' satisfaction and continual usage intention for using SS-ARIT. We provide the results that SSTQUAL is indeed a key influencing technostressor. What is more important is we found that transformational (active) coping is able to effectively alleviate the negative impact of technostress on satisfaction and continual usage intention.

For practitioners, we provide more insight into the consumers' mindset when they encounter new self-service technologies. As firms and designers are more aware of the important factors for consumers using SS-ARIT and are able to understand consumer frustration more completely, they will be better equipped to create and modify successful SS-ARIT for consumer use.

## **CARSHARING: A REVIEW, SYNTHESIS, AND MARKETING RESEARCH**

### **AGENDA**

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**Keywords:** Carsharing, shared mobility, mobility-as-a-service, multi-modal mobility, vehicle balancing

**Description:** Following the recent surge in research on shared mobility, the paper synthesizes this growing literature to provide a comprehensive understanding of the current state of research and to identify directions for future work.

### **EXTENDED ABSTRACT**

#### **Research Question**

The last decade has seen the rise of a wide range of shared mobility services (e.g., carsharing) and a major surge in research on this topic. Spurred on by the specter of “peak car,” automakers and other market actors have made substantial investments into various mobility services.

However, a growing number of companies have struggled or fully shut down their operations, such as GM ending its car-sharing service Maven and BMW and Daimler pulling their joint services out of most markets in 2020. Nonetheless, new market initiatives are continuously being launched. Mirroring these developments, academic interest in the topic is increasing across diverse fields that include transportation, service, environmental management, and marketing. In fact, marketing scholars highlight the transformative potential of such technologically enabled socioeconomic systems. Against this backdrop, we conduct a systematic review to synthesize the growing literature on Carsharing. The dramatic increase in publications in recent years points to the need for such a review; in 2019 alone, over 50 scientific journal articles were published. The aim of this literature review is to synthesize research on shared mobility to consolidate existing knowledge, outline managerial and policy implications, and present an agenda for future research.

### **Method and Data**

The three-stage approach of planning, conducting the review and reporting, recommended in Tranfield, Denyer and Smart (2003) was followed throughout the process of this literature review. A systematic literature review was conducted in order to maximize chances of providing valuable contributions by minimizing bias. Identification and selection of relevant literature was made using keyword search ('carsharing,' 'shared mobility,' 'mobility services,' and 'mobility-as-a-service') in Scopus and Web of Science. The scope of the search was not limited to any specific field, subjects or journals in order to attain the research field's full overview. Included were all peer-reviewed journal papers written in English until the end of 2019 (980 papers in total). Upon exclusion of papers whose content did not meet the predetermined criteria, a total of 301 papers were read and analyzed. Before 2011 only 24 papers were published, from 2012 to 2018 there were 197 publications, and in 2019 alone 80

papers were published. A majority of papers are published in transportation research journals; only approximately 10% appear in published in marketing and management journals.

### **Summary of Findings**

The study identifies five main research themes.

*Business models*; round-trip and one-way. While the round-trip is a traditional model in which the car is returned to the pick-up location after use, one-way, may be station-based or free-floating.

*Drivers and barriers* for service providers and users are socio-demographic factors (e.g., age and education level), geographic factors (e.g., availability), socio-economic factors (e.g., household income and level of education) and life events (e.g., change of job or residential area) as primary motivators for joining shared mobility schemes.

*User characteristics, behavior, and motives*; the average users are portrayed as being highly educated, middle class and are seen to be more engaged in multi-modal transport than non-shared mobility users.

*Vehicle balancing*; flexibility in return times and vehicle locations for one-way carsharing causes causing short-term vehicle imbalance as vehicles become unavailable in locations where they are needed and are left redundant in locations where they are not required, which calls for periodic vehicle relocation between stations.

*Multi-modal mobility*, refers to flexible combination of different transport means, also encompassing mobility-as-a-service (MaaS). Through matching customer needs more closely to service supply, MaaS opens up new opportunities for better customer services and potential reduction in public transport subsidies.



## **Key Contributions**

Based on the five themes, we outline a research agenda which considers inter-dependencies between and within the themes. It aims at addressing some of the main concerns regarding shared mobility, its relevance in society and how success of shared mobility ventures can be promoted. Despite the sharp rise in publications, many pertinent research questions remain unaddressed, especially from a marketing perspective. The research agenda presents important questions that we believe marketing researchers are well-positioned for addressing. It also provides key implications for practice (managers and policy makers).

**Note:** References are available upon request.

## **DIE ANOTHER DAY? A STUDY OF THE US CLOTHING INDUSTRY**

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**Keywords:** US Retailing, Household Expenditures, Clothing, Intertype Competition, Consumer Out-of-town Shopping

**Description:** This study examines household expenditures at clothing & clothing accessories stores in the US.

### **EXTENDED ABSTRACT**

#### **Research Question**

We examine the following research questions in this study.

- How does intertype competition influence retail expenditures per household at clothing and clothing accessories stores?
- What are the key variables driving retail expenditures per household at clothing and clothing accessories stores?
- Are those key variables differ in metropolitan areas vs. micropolitan areas?
- Do large areas draw retail sales (*i.e.*, expenditures) from nearby small areas?

#### **Method and Data**

The data used for this study primarily comes from two sources: the 2012 Economic Census and the 2012 American Community Survey (5-year estimates). Information regarding clothing and

clothing accessories stores is obtained from the 2012 Economic Census, while details on household characteristics are from the 2012 American Community Survey 5-year estimates (2008 – 2012). Regarding method, first, we do a *ln* transformation on the dependent variable. Second, we conduct a factor analysis on the set of socioeconomic and demographic variables. Third, we use OLS regression for our econometric models.

### **Summary of Findings**

- It is evident that clothing stores benefit from the existence of traditional department stores, for two reasons. First, clothing stores take sales away from traditional department stores. Second, when clothing stores and traditional department stores are located in clusters, clothing stores benefit from the consumer flow going to the surrounding area – agglomeration effect.
- Large families – large full-nest households and large families with low education spend significantly more at clothing and clothing accessories stores, which is due to their large household size and their needs of clothing for children across all ages. On the other hand, middle-class families spend less, which indicates this group of consumers may shop for clothing products at intertype competitors.
- Two marketing mix variables – quantity and quality of service at clothing and clothing accessories stores significantly increase household expenditures.
- Key variables driving retail expenditures are slightly different in metropolitan vs. micropolitan areas.
- Results indicate that consumers do out-of-town shopping for clothing and clothing accessories. However, with adequate and dedicated service employees, clothing and clothing

accessories stores can mitigate the negative impact incurred from local competitors as well as competitors located in nearby areas.

### **Key Contributions**

This study adds to the marketing literature by 1) examining intertype competition in the clothing industry - we show that clothing stores are in intertype competition with both traditional department stores and discount department stores; 2) reexamining the set of key drivers of retail expenditures; 3) examining the factors driving clothing expenditures in micropolitan areas, which has never been done in the literature; and 4) operationalizing and examining consumers' out-of-town shopping behavior, which to the best of our knowledge, has not been done in the literature.

This paper provides insights to retailers as they make decisions on store location, strategies against competition, market segmentation, and the use of marketing mix variables. First, it would be better for clothing and clothing accessories stores to locate near traditional department stores, but far away from discount department stores. Second, quantity and quality of service are important factors for increasing sales and retaining customers. Third, the five consumer groups exhibit slightly different expenditure patterns, which are beneficial to retailers for market segmentation purposes. Lastly, consumers do out-of-town shopping for clothing and clothing accessories. It is important for retailers to take the external environment into consideration when opening new stores in the area.

## **DISCOUNTED PRICE PARITY: ROLE OF AFFECT IN COMPARATIVE EVALUATIONS OF E-TAILER PRICES**

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Keywords: discounted price parity, joint evaluation, e-tailer prices, affect

The paper describes how an e-tailer should offer its list price in a discount deal, for it to be evaluated favourably when it's deal is compared to that of a relatively higher-trusted e-tailer's.

### **EXTENDED ABSTRACT**

#### **Research Question**

Urbany, Bearden, and Weilbaker (1988) concluded that believability of the list price in a discount deal affects purchase intention mediated by value. We believe affect also contributes to purchase intention in a discount deal evaluation.

R.Q.1. How does affect contribute to the effect of believability of the list price in a discount deal on purchase intentions?

Fang et al. (2014) established that in online purchases, trust in the vendor is associated with repurchase intentions. Furthermore, Smith, Menon, and Sivakumar (2005) concluded that trust in the peer recommender affects product choice through the recommender's influence in online recommendations. We wish to understand the combined effect of trust in the e-tailer and deal believability when deals at two e-tailers are evaluated simultaneously.

R.Q.2. In joint evaluation of discount deals, how does trust in the e-tailer and deal believability affect e-tailer choice?

#### **Method and Data**

We conducted three experiments to address the research questions. Experiment 1 was designed to study the effects of different list prices on the purchase intention towards a discount deal and the role of affect in the relationship. We planned a 2 (Discount level: Low vs. High) x 2 (E-tailer: Higher vs. Lower Trust) between-subjects design. Respondents were shown the picture of an HP pen drive. The deal was presented on an e-tailer, either Amazon (more trusted) or

Flipkart (Walmart owned). The sale price across all treatments was INR 1099. List price was either INR 2300 (52% discount) or INR 1400 (21% discount).

In Experiment 2, we tested the effect of trust in e-tailer on e-tailer choice when the same discount deal was presented to respondents. They received either Amazon or Flipkart deal first randomly followed by the other e-tailer deal.

In Experiment 3, we studied the effect of trust and deal believability through transaction value and acquisition value on e-tailer choice, when respondents were presented deals with different list prices but same sale prices (*Discounted Price Parity*). We planned a mixed design with [2 (Discount level difference: Low vs. High) between-subjects] x [2 (E-tailer: Higher vs. Lower Trust) within-subjects]. Respondents received discount difference of either (15% and 18%) or (15% and 47%) between e-tailers.

### **Summary of Findings**

Through Experiment 1, we concluded that believability in the deal price increases the customer's value of the deal and generates positive affect. High value, in turn, also generates positive affect. Both value and affect increase purchase intention. We presented the deals separately, and found no differences in believability of the two price discount manipulations. While trust was higher in Amazon, it did not affect the tested relationships possibly because both e-tailers commanded relatively high trust.

Through Experiment 2, we concluded that when list prices and sale prices across e-tailers are the same, respondents make their choice based on their trust in the e-tailer.

Through Experiment 3, we concluded that transaction value difference between the deals impacts e-tailer choice by generating a positive affect but only for respondents with moderate to low confidence in their price estimates. Believability in the deal from a trusted e-tailer can also generate positive affect. Separately, trust directly and more significantly affects e-tailer choice. Furthermore, when the discount difference is large between the e-tailers' deals, the higher list priced deal from the relatively low trusted e-tailer is considered less believable.

### **Key Contributions**

The paper makes three contributions to the literature on joint evaluation in online purchases. First, each respondent makes a choice of an e-tailer to purchase from, only after comparing deals across two e-tailers, unlike the prevailing methodology of studying between-subjects designs suggesting a customer consults only one e-tailer's deal. Second, value is shown to drive the e-tailer choice mediated by affect which the extant literature has not considered till date. Third, the condition of *Discounted Price Parity*, with varying list prices but same sale prices is studied. A relatively lower trusted e-tailer can make informed choices on offering list prices on products for customers who make purchase decisions after comparing deals across e-tailers.

**Does unemployment improve customer satisfaction? Evidence from the field**

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Keywords: Customer satisfaction, unemployment, wage, time-series

This research examines changes in customer satisfaction at a macro-level as a function of the unemployment rate

## **EXTENDED ABSTRACT**

This research examines changes in customer satisfaction at a macro-level as a function of the unemployment rate. The unemployment rate reflects the proportion of unutilized workers in the labor force who are searching for jobs. Over the course of three studies, we demonstrate that as the percent of people searching for work in a Metropolitan Statistical Area (MSA) increases, so do the average customer satisfaction ratings at service firms in that area. These increases in customer satisfaction are moderated by the wage a firm offers, relative to the offering of other similar firms. Under conditions of low unemployment, offering a higher wage leads to higher customer satisfaction values. Higher wages do correspond with higher customer satisfaction, but this relationship diminishes at higher levels of unemployment.

### **Research Question**

This study addresses two research questions (1) Does the unemployment rate affect the average customer satisfaction ratings at service firms? And (2) Can wage explain differences in customer satisfaction under conditions of low and high unemployment?

### **Method and Data**

We use fixed-effect modeling to account for Time-variant, firm-MSA invariant factors and Time-invariant, firm-MSA variant factors. Macro-economic condition such as business cycles might influence all MSA-brand in the same time period. For example, a recession might increase both the unemployment rate and the customer satisfaction. We use four different data sources in our research to support our findings. The first is the unemployment rate from the Bureau of Labor Statistics which is given at the monthly MSA level. The second, is a data set of mystery shoppers at a firm in the gas-stations industry, which evaluate objective factors that lead to customer satisfaction quarterly at different gas stations. The third dataset is a web-scraped data set of yelp reviews for several firms over 176 months. Overall, we collected over 400,000 yelp reviews. The fourth data set is a web-scraped data set of glass door salaries for several firms that appear in the Yelp data. We



create monthly ratings of customer satisfaction by aggregating the yelp data for firms in the same MSA and the same month. We also create relative wage indices for these firms using the Glassdoor data and matching based on geography and company.

### **Summary of Findings**

We find that the unemployment rate does significantly influence the average customer satisfaction ratings at service firms, when controlling for firm-MSA fixed effects and monthly fixed effects. Specifically, when the unemployment rate is higher, firms have higher ratings of customer satisfaction in two service industries, gas stations and limited services restaurants. Moreover, we find that under conditions of low unemployment, there is a higher return to customer satisfaction by offering a higher relative wage.

### **Key Contributions**

Understanding the effect of unemployment on customer satisfaction and the moderating role of wage offers substantial insights to managers, during both periods where economic conditions are better and periods where economics conditions are worse.

One contribution of our work is empirically demonstrating how labor supply affects customer satisfaction. By doing so, we permeate the barrier between macroeconomic variables and their relationships with marketing. Additionally, we respond to recent calls by Katsikeas et al. (2016) to study the effect of marketing actions on the costs incurred by a firm. By observing market conditions, we help managers answer the question of “When should we try to affect customer satisfaction?” Theoretically, we introduce labor supply as an antecedent to customer satisfaction.

Substantively, we contribute by analyzing the moderating role of wages in customer satisfaction. Implications of our empirical findings should provide guidance to managers on how wage offerings should be adjusted, in consideration of labor market conditions, so that desired customer satisfaction levels can be achieved. Managers should glean insight from this research regarding the optimization of service quality as a function of wage offering and economic

conditions.

**FEELING WATCHED: HOW VISIBILITY IMPACTS TIP AMOUNTS AND  
ENGAGEMENT INTENTIONS**

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**Keywords:** tipping, social presence, tip visibility, perceived control, altruism

**One sentence summary:** We find that when employees watch customers select tip amounts, customers tip less and respond poorly to the business; however, when other patrons watch customers select tips, tip amounts increase.

**EXTENDED ABSTRACT**

**Research Question:** What happens to tip amounts and engagement intentions (e.g., re-patronage) when tip selections are visible (vs. not visible) to employees and other patrons?

**Method and Data:** Exploratory interviews with customers and tipped service workers. Four lab experiments.

**Summary of Findings:** Digital point-of-sale technologies have disrupted the norm of privacy while tipping, yet research has not addressed the effects of tip visibility and scholarship on voluntary payments and social presence during consumption predicts competing hypotheses. Exploratory interviews with customers and employees reveal inconsistent practices and uncertain effects of tip visibility. Four lab experiments and a field simulation show that when tip selections are visible (vs. not) to employees, customers' engagement intentions decline due to decreased control over the tip selection process, and tip amounts are reduced due to decreased perception that the tip signals altruism. Interestingly, when tip selections are visible to employees *and* other patrons, the effect on tip amounts is reversed, so that tip amounts increase due to increased beliefs that the tip is a signal of generosity. This results in a surprising instance where tips increase, but engagement decreases.

**Key Contributions:** We contribute to theory on tipping (Alexander, Boone, and Lynn 2020), voluntary payments (Jung et al. 2017), and social presence (Andreoni, Rao, and Trachtman 2017; Argo, Dahl, and Manchanda 2005; Esmark, Noble, and Breazeale 2017) by introducing the important variable of tip visibility. We distinguish the effects of privacy from employees and other patrons, which prior research—outside the domain of tipping—has generally found to have similar effects. We show that employee and other patron tip visibility affect payment amounts and engagement intentions through different processes, which do not always move in the same direction. We disentangle the relationship between tip amounts and engagement, and show that increasing the visibility of tips can sometimes lead customers to tip more while also decreasing their engagement with the firm (e.g., reducing patronage rates).

Our findings suggest that tipped service providers, including restaurants, rideshare apps, taxis, delivery, and beauty services, should be careful to ensure that customers feel that they have privacy while they are selecting tip amounts. Depending on the context, managers should train employees to avert their eyes while customers select tip amounts or publicly adopt privacy-while-tipping policies. This advice is not obvious, as it goes against the general practices of most firms that use digital platforms to request tips, and against the traditional advice from tipping scholars, who suggest that increased employee attention will result in increased tip amounts. Further, our findings suggest that arranging servicescapes such that tip selections are visible to other patrons may increase tip amounts without directly impacting customer engagement.

**HOW TO EFFECTIVELY DRIVE WORD OF MOUTH WITH POP-UP STORES: THE ROLES OF STORE EPHEMERALITY AND CONSUMERS' NEED FOR UNIQUENESS**

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**Keywords:** pop-up store, store ephemerality, word of mouth, need for uniqueness

**Description:** The purpose of this research is to examine the relationship between retail experience, brand experience and WoM (both interpersonal and electronic) by considering the moderating roles of (perceived) store ephemerality and need for uniqueness.

**EXTENDED ABSTRACT**

**Research Question**

Consumers increasingly share experiences interpersonally and electronically. By considering this, brands launch pop-up stores: an ephemeral, experiential store format (Robertson et al. 2018). Pop-up research has already identified retail and brand experience as having an impact on positive word of mouth (WoM) (Klein et al. 2016). However, experience is not exclusive to pop-ups but integral to all experiential stores (e.g., Jahn et al. 2018). Therefore more interesting is the main feature distinguishing pop-ups from other experiential stores – their ephemerality. The limited availability of services can increase their perceived value (Lynn 1991). Further, pop-ups' ephemerality has

been found to inspire excitement (de Lassus and Freire 2014; Henkel and Toporowski 2021). Therefore, a pop-ups' ephemerality could affect the link between retail and brand experience, thus further heightening positive WoM for the brand. Furthermore, research predicts that members of pop-ups' target group – consumers with a high need for uniqueness (NFU) – generate less WoM out of fear of emulation (Cheema and Kaikati 2010). However, as people are likely to adjust their WoM behavior according to their communication goals, this work questions whether this assumption is applicable both when speaking to close others (e.g., friends) and when the audience comprises distant others (e.g., the public).

### **Method and Data**

This research set out to examine the relationship between retail experience, brand experience and positive WoM by considering the moderating roles of (perceived) store ephemerality and NFU. The proposed model is tested in two studies, one field study and one experiment. For the field study in Study 1, 119 visitors to a pop-up store ( $M_{\text{age}} = 32.04$ ,  $SD = 10.63$ ; 37.8% female) were asked about their perceived store ephemerality, retail and brand experience, intention to spread positive WoM about the brand interpersonally and electronically, and their NFU. Study 2 set out to employ an experiment and to apply the suggested model to another product category – fashion, since companies in this field were the initial users of pop-ups (Niehm et al. 2006). Therefore, 160 German participants ( $M_{\text{age}} = 27.88$ ,  $SD = 7.81$ ; 63.4% female) were recruited through social networks and flyers and a one-factor, two-level (store ephemerality: flagship vs. pop-up) between-subjects design was employed. To investigate the roles of store ephemerality and NFU in the relationship between retail experience, brand experience, and consumers' intentions to spread

interpersonal and eWoM, the authors performed moderated mediations (using PROCESS Model 21 with 10,000 bootstrap samples; Hayes 2018).

### **Summary of Findings**

The findings provide converging evidence for the necessity to consider store ephemerality and NFU as moderators in the mechanism that links retail experience with brand experience and WoM. Assessing real consumer behavior in a pop-up store context and conducting an experiment, results support the prediction that retail experience positively affects brand experience, especially when the store is (perceived as) ephemeral. In turn, brand experience heightens positive WoM for the brand. Findings further show that NFU plays a significant role in the relation between brand experience and WoM. The studies corroborate the prediction that for high-NFU consumers, brand experience translates into increased WoM, when communicating with distant others due to self-enhancement (Dubois et al. 2016). In contrast, the authors predicted high-NFU consumers to preserve their uniqueness and prevent close others from enjoying the same experience (Cheema and Kaikati 2010; Moldovan et al. 2015). Although Study 1 supports this expectation, Study 2 could not find a significant negative effect for NFU in the relation between brand experience and interpersonal WoM for the fashion-context.

### **Statement of Key Contributions**

The contribution of this work is threefold. *First*, it demonstrates the effect of store ephemerality on the link between retail experience and brand experience. This is a crucial contribution to the existing literature on pop-ups, which tended to ignore their distinguishing feature (e.g., Klein et al. 2016). Furthermore, it adds to the current literature stream that finds ephemeral consumption to be



a novel concept of consumer behavior, with long-term orientation falling out of favor (Bardhi and Eckhardt 2017). *Second*, research regarding pop-ups has generally overlooked the format's target group – consumers with a high NFU. This work suggests that it may play a game-changing role in the success of such stores. *Third*, this work verifies the value of a more detailed view of the effect of NFU on WoM, suggesting a need to differentiate between WoM among close friends (interpersonal WoM) and WoM among distant others (eWoM). The findings add to pop-ups' communicational objectives and provide implications for brands regarding the development of successful pop-up store concepts. In conclusion, this work indicates that pop-ups offer a win-win situation for customers and brands: while customers have the opportunity to experience a brand more intensely, brands can benefit from immediate positive WoM.

References are available upon request.

## **INVESTIGATING THE INFLUENCE OF BUNDLE PURCHASES ON CUSTOMERS' POST-PURCHASE BEHAVIOR**

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**Keywords:** Consumer Behavior; Bundle Purchases; Returns; Repurchases

**Description:** Our research builds on Gestalt theory to investigate how purchases of different types of bundles affect returns and repurchases compared to purchases of individual products.

### **EXTENDED ABSTRACT**

**Research Question** – According to Gestalt theory (Koffka 1935; Köhler 1970), humans have a tendency to combine multiple elements into a distinct entity in their head, which results in the formation of a Gestalt unit that is perceived differently than the sum of its parts. Bundling leads consumers to engage in this psychological process, so that they perceive the items of the bundle as one inseparable Gestalt unit (Shaddy and Fishbach 2017). This results in an asymmetric valuation of bundles: consumers demand more compensation when asked to give up items from a bundle (compared to giving up the same items in isolation), but they have a lower willingness to pay for and experience less satisfaction from items added to or acquired as bundles, compared to the same items purchased separately (Shaddy and Fishbach 2017). We build on these findings to answer the following research questions: 1) What influence do bundle purchases have on returns and repurchases? 2) Do different bundle types relate to these outcomes differently?

**Method And Data** – We established a collaboration with a German e-commerce retailer and analyzed all transactions from January to December 2019. Returns and repurchases were tracked

until the beginning of July 2020. To ensure the independence of observations, we randomly selected one purchase per customer, resulting in 270,470 purchased items of which 5% were purchased as price bundles and 36% were purchased as product bundles. The dependent variable *repurchases* was measured by two variables, the number of repurchases and the average future basket size. The second dependent variable *returns* was measured as a binary variable as seen in similar works (e.g., Gallino and Moreno (2018); Hong and Pavlou (2014)). For the independent variable *type of product purchased*, we followed the differentiation introduced by Stremersch and Tellis (2002) and created a categorical variable differentiating between individual products, price bundles and product bundles. We conducted a robust MANOVA and individual robust ANOVAs to test if there is a significant relationship between the type of product purchased and the repurchase variables. Afterwards, we conducted three individual regressions (negative binomial, multiple, logistic) to explore the relationships in detail.

**Summary of Findings** – The robust MANOVA and ANOVAs confirmed that there is a significant relationship between the type of product and the number of repurchases as well as the average basket size of repurchases. More detailed investigations of the relationships in separate regressions showed that product bundles have a significant negative effect on both repurchase variables as well as returns (compared to purchases of individual products). After purchasing a product bundle, consumers are less likely to make repurchases at the same retailer (and if they do with smaller basket sizes), but are also less likely to return the purchased item. This confirms that product bundles' stronger Gestalt perception results in lower levels of satisfaction from the acquisition of the item, but at the same time higher levels of dissatisfaction from the loss of the item (Shaddy and Fishbach 2017). Price bundles, on the other hand, had a non-significant negative effect on

repurchases and a significantly positive effect on returns. These findings are not in line with our hypotheses and require further investigation.

**Key Contributions** – Our work contributes in three ways: First, research to date has mostly considered bundling as beneficial to retailers and customers alike by, for example, reducing defection or helping customers to understand radical innovations (Ranganathan, Seo, and Babad 2006; Reinders, Frambach, and Schoormans 2010). Our work, however, shows that bundle purchases can also have negative consequences for retailers such as reducing repurchases. Second, previous works often analyzed price (e.g., Karataş and Gürhan-Canli (2020)) or product bundles (e.g., Hamilton and Koukova (2008)) in isolation and used the terms ambiguously. We show that there are differences regarding the Gestalt perception (Shaddy and Fishbach 2017) of product and price bundles and thereby reveal the need for future research investigating the differences between the two bundle types. Lastly, we placed our work in the e-commerce context where return rates are particularly high and building customer loyalty is even more difficult than offline (De, Hu, and Rahman 2013; Harris and Goode 2004). Further, we analyzed longitudinal purchase data to avoid measuring self-reported intentions (Chandon, Morwitz, and Reinartz 2005). Thus our work can provide actionable guidance to e-commerce practitioners when needing to weigh the benefits and disadvantages of bundles.

*References are available upon request*

## **ONLY BRAND MATTERS? PRICING STRATEGY ANALYSIS FOR RETAIL CATEGORY MANAGEMENT**

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**Keywords:** category management, retail pricing, item aggregates, price elasticity

**Description:** This study emphasizes the need for SKU-level price analysis to avoid elasticity estimation biases by identifying different strategic dimensions of retailer pricing decisions across multiple products, brands, and stores.

### **EXTENDED ABSTRACT**

#### **Research Question**

Most research on category pricing decisions assumes that retailers set brand prices either at the store or chain level (Walters 1991; Raju 1992; Tellis and Zufryden 1995; Basuroy, Mantrala, and Walters 2001; Van Heerde, Leeflang, and Wittink 2004). The typical empirical approach includes examining store/chain scanner data, aggregating product prices at the brand-level. However, brands under the same category may consist of an assortment of SKUs, including variants such as flavor, size, and package, which lead to product heterogeneity. Moreover, different characteristics may affect how consumers perceive a product, leading to different price sensitivity levels. Ignoring SKU-level pricing differences may lead to critical aggregation biases in price elasticity estimation. This study empirically investigates retailer pricing strategies by analyzing

prices over 67 weeks for 161 SKUs of 38 brands in 120 different stores located in various markets. We classify retailers into pricing strategies and characterize their prevalence across stores in our sample. Moreover, we investigate price variances at the brand and the SKU level to calculate potential aggregation biases in demand estimations and, therefore, implications for theory and practice.

### **Method And Data**

This study investigates the level at which most category pricing decisions are taken. Our unique dataset consists of scanner data gathered directly at the focal retailers' point-of-sale and supplemented with data on brand and product characteristics from the brand catalog of the industry. The dataset consists of an unbalanced longitudinal panel data for 67 weeks, including the date of purchase, price, quantity sold, barcode (SKU), brand, product type, product package format, store code, number of checkouts, total retail revenue, and the total number of store transactions. It includes about 540 thousand daily coffee transactions from 161 different SKUs and 38 brands from 120 independently operated grocery retailers. We performed a Principal Component Analysis with varimax rotation of weekly prices at the SKU level to identify different strategic dimensions of retailer pricing decisions across multiple products, brands, and stores, resulting in the total amount of variance accounted for (1) brand and (2) other characteristics. Finally, we use the total variance to classify each retailer's dominant pricing strategy as either focused on brand, other characteristics, or mixed. Also, we compute each SKU price variance and compare it to the price variance aggregated by brand to calculate potential aggregation biases in demand estimation.

## **Summary of Findings**

We observe that 50% of retailers have their pricing strategies mainly focused on product characteristics other than the brand (versus 39,4% brand and 10,6% mixed). But what does this finding imply? In contrast to what most papers in the literature assume, this finding sheds light on a pricing strategy based on other product characteristics than the brand. For illustration purposes, an example of this strategy is when retailers choose to discount products from the same flavor (coffee type) in the same week. In contrast with most studies in the literature, we show that instead of traditional price promotion based on brand, some retailers may find it more profitable to discount products from different brands but with other common characteristics. Therefore, considering that all retailers price their products at the brand level may lead to biased conclusions.

Our variance study shows that price variances at the SKU-level are much larger than the variances of prices aggregated by brand. Thus, a considerable portion of the information is lost with brand aggregation. Moreover, we estimate brand and SKU-level elasticities (around -2 versus -9 to -11) for some products in our sample. This difference may lead to serious bias in price elasticity estimates since a significant part of the information is lost due to aggregation.

## **Statement of Key Contributions**

This study emphasizes the need for SKU-level price analysis to avoid elasticity estimation biases in two crucial ways. First, we identify different strategic dimensions of retailer pricing decisions across multiple products, brands, and stores. We then classify retailers regarding their main pricing strategy pattern and find that most stores in our sample define their pricing strategies mainly based on product characteristics

other than brand. Second, we show that the price variances are much larger than the brand level at the SKU level. Thus, a considerable portion of the information is lost with brand aggregation. Therefore, this study empirically measures how much information is lost due to brand aggregation and show that, in our sample, most retailers formulate pricing strategies considering different product characteristics. Thus, the major contributions are: (1) an empirical analysis of retailers pricing strategies, (2) developing a classification of pricing strategies and describing their prevalence in our sample, and (3) we shed light on a potential aggregation bias on previous papers elasticity estimates and, therefore, implications for theory and practice.

References are available upon request.



**OUTDOOR ATMOSPHERICS EFFECTS ON BEHAVIOURAL INTENTION: THE  
ROLE OF AESTHETIC APPEAL**

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**Keywords:** outdoor atmospherics, aesthetic theory, aesthetic appeal, impulse buying tendency

**Description:** The paper examines what effect outdoor atmospheric stimuli on consumer response to retail storefronts.

## **EXTENDED ABSTRACT**

### **Research Question**

Although the positive effects of aesthetics is well established in website (online) contexts (Lavie & Tractinsky, 2004; Schenkman & Jonsson, 2000), research in the context of retail, specifically outdoor atmospherics does not exist. To examine this influence, this paper first, draws on environmental psychology and aesthetic theory to make inferences on effects of aesthetic appeal on purchase intentions. Secondly, it examines the moderating effect of individual differences pertaining to impulse buying tendency. By so doing, answering the call for further empirical research on external atmospheric variables to build in the scant existing literature (Turley & Milliman, 2000). Research on signage and landscaping is especially called for due the limited knowledge of their effects (Turley & Milliman, 2000).

### **Method and Data**

**Study 1** – To identify stimuli with aesthetic appeal, images were assessed on their degree of aesthetic appeal and aesthetic formality (Wang et al., 2011) using a paired sample t-test.

**Study 2** - A convenience sample of 161 participants were recruited online via MTurk and participated in a study that had one manipulated condition (Aesthetic appeal: High aesthetic appeal, low aesthetic appeal). The average age of the participants was 32 years and 65% were male. All participants were asked to view the storefront image presented and thereafter responded to the online questionnaire that followed.

### **Summary of Findings**

Results indicate that store front foliage was associated with higher aesthetic appeal compared to store front signage. However, contrary to what was hypothesized, higher aesthetic appeal actually had a negative effect on purchase intentions while lower aesthetic appeal had a positive

effect. It was not directly clear why this would be the case, but two possible reasons were identified. First, an aesthetically appealing storefront is not a strong enough indicator of consumer behavioural intentions, more so where this appeal is not associated with the products sold. Secondly, considering individual differences in behavior such as impulse purchases may need to be considered. Accordingly, the moderating variable of impulse buying tendency was included in the model, which positively reversed the direction of the relationship between aesthetic appeal and purchase intentions. Such that Aesthetic appeal effects on purchase intentions were significantly higher for those with a high impulse buying tendency.

### **Key Contributions**

/;

*References are available upon request.*

**SAME SAME BUT DIFFERENT: INVESTIGATING THE EFFECTS OF  
MARKETING INSTRUMENTS ON DEMAND FOR PRIVATE LABELS IN  
MULTICHANNEL RETAILING**

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Keywords: grocery retailing; private labels; multichannel shopping; marketing instruments.

The current research investigates how the effects of marketing instruments on PLs demand changes online compared to offline.

**EXTENDED ABSTRACT**

**Research Question**

The current study sets out to investigate the effects of marketing instruments on PLs demand when multichannel consumers shop online compared to offline.

**Method and Data**

We use data from a leading European multichannel grocery retailer. The dataset included 105 weeks of observations starting from august 2017 until august 2019 and include all purchases done by 2374 multichannel households from offline and online channels. Our dependent variable is a demand for PLs, measured as the number of PLs (items) household  $i$  purchase during purchase occasion  $t$  relative to the total number of items purchased during this purchase occasion. The explanatory variables are NB – PL price gap, PL and NB price promotions, PL assortment depth, and PL assortment breadth. We also account for observed and unobserved household heterogeneity.

### **Summary of Findings**

Overall, our results show that consumers are more sensitive to prices but are less sensitive to price promotions and assortment online compared to offline in the context of PL choice.

Specifically, NB-PL price gap in a category, price promotions on PLs, and on NBs and PL assortment depth and breadth indeed impact consumer demand for PLs, but all, except price gap, are less important drivers of the PLs demand online than offline. When it comes to NB-PL price gap, we find that NB-PL price gap has a positive impact on PLs, indicating that consumers are more likely to trade down to PLs when NBs are priced higher. However, on the contrary to common findings that consumers are less price sensitive online, we find that the impact of a price gap is stronger when consumers shop online.

### **Key Contributions**

Our findings have contributed to the existing literature along two dimensions. Our study adds to PLs literature by exploring the demand for PLs in a new context of multichannel retailing and answers the call by Dekimpe & Geyskens (2019) for new research on PLs inspired by current retail practices. To our knowledge, the current study is the first to explicitly compare the effects of marketing instruments on PLs demand online vs. in offline channels. Thus, we contribute to existing research (ex. Steenkamp, van Heerde, & Geyskens 2010; Dhar & Hoch 1997) on how consumers react to marketing instruments when it comes to PLs. Second, our findings add to the literature on multichannel grocery retailing, especially related to the studies about changes in consumer behavior across channels (such as Campo et al. 2020, Melis et al. 2016, Campo & Breugelmans 2015). All in all, our findings provide a better understanding of how consumer behavior changes when shopping online compared offline in terms of PLs and demonstrate how marketing instruments drive PLs demand.

## **SANCTIONING SUBSCRIPTION MOOCHING: AN EXPERIMENTAL INVESTIGATION OF ITS INTENDED AND UNINTENDED EFFECTS**

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**Keywords:** consumer misbehavior, subscription business, subscription mooching, complicity, scenario-experiment

**Description:** This research explores the intended and unintended consequences of sanctioning subscription mooching, a pervasive form of consumer misbehavior in the streaming industry.

### **EXTENDED ABSTRACT**

#### **Research Question**

Consumer misbehavior is widespread in access-based services, especially in the streaming industry. Providers like Netflix and Spotify face the problem of subscription mooching, i.e., using a joint account across different households. Managers of streaming platforms need guidance on how to deal with subscription moochers. While extant research focuses on types, motives and consequences of misbehavior, the intended and unintended consequences of sanctioning misbehavior remain largely unexplored. We investigate under what circumstances

sanctions either lead to switching or subscription intentions. Additionally, we shed light on the underlying emotional processes drawing on appraisal theories of emotions.

### **Method and Data**

In order to investigate consumers' reactions to sanctions, we conducted a scenario-based experiment in the context of video streaming, using Netflix as an example. We employed a 2x2 factorial between-subjects design with the streaming platform's handling of subscription mooching as the first and consumers' contribution to a shared account as the second factor. The first factor was manipulated on two levels (sanctions vs. no sanctions), as was the second factor (contribution to shared account vs. no contribution to shared account). Our sample is representative for the streaming industry and consists of 211 Netflix users in Germany with an average age of 25.16 years and an average Netflix use of 4.13 times per week. 55.5% are female. Participants were randomly assigned to one of the four experimental groups and they received a scenario and a questionnaire.

### **Summary of Findings**

The results of our experimental study show that sanctions evoke an increase in consumers' guilt and thus to their intention to subscribe, but only for those moochers who do not contribute to shared accounts. Sanctions also increase anger and ultimately the intention to switch to competitors. While sanctions elicit anger equally for everybody, the effect from anger on intention to switch is less pronounced the higher the moochers' category involvement. A high category involvement implies an increased dependence on the provider and thus, attenuates the negative effect of sanctions on the intention to switch.

### **Statement of Key Contributions**

First, with our experimental study, we show that sanctions induce guilt and strengthen subscription intention among those moochers that free-ride on their enablers' account. In contrast, sanctions have no significant effect on guilt and subscription intention among moochers that pay a share of the subscription fee. Thus, providers should appeal to consumers' integrity and emphasize that mooching does not become legal only by financially contributing to another account.

Second, we theoretically argue and empirically demonstrate that sanctioning subscription mooching can also foster moochers' intention to switch to a different streaming provider. This effect is mediated by their anger about sanctions. As the positive effect of anger on intention to switch is more pronounced for consumers with low category involvement, companies could consider a targeted sanctioning approach.

Third, we contribute to the research stream on immaterial consumption. While this form of consumption creates new ways of consumer behavior on the bright side, it simultaneously fosters new, under-researched forms of consumer misbehavior on the dark side. Particularly, we add the notion of complicity in consumer misbehavior. As consumers collude, they display lower guilt. Thus, we emphasize the need to further investigate this complicity.



# **SERVICE ROBOT'S ANTHROPOMORPHISM LEVELS AND THE ATTRIBUTION EFFECT IN SERVICE FAILURE**

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Keywords: Anthropomorphism, Robot, Attribution, Service Failure.

Description: Because little research has focused on consumers' responses to service failures caused by service robots, this paper focuses on the effect of anthropomorphism in service robots on consumers' forgiveness of service failure to supplement research on interaction between humans and service robots.

## **EXTENDED ABSTRACT**

### **Research Question**

According to Erebak and Turgut (2019), consumers who trust anthropomorphic robots tend to exhibit strong intentions to interact with them as well as have considerable reference for them. In other words, the extent to which robots are anthropomorphized affects their acceptance and trust by consumers. When an object is highly anthropomorphized, consumers tend to attribute their behavioral outcomes to the object's anthropomorphism; Conversely when an object is not highly anthropomorphized, consumers tend to not attribute their behavioral outcomes to its anthropomorphism (Morewedge, 2009).

Therefore, when a service robot is highly anthropomorphized, consumers tend to attribute service failure to its human-like behavior, such as disobedience or poor ability. By contrast, when a service robot has low anthropomorphism, consumers tend to regard the robot as merely a program with predetermined functions and hardware configurations. Consequently, they attribute service failure to the difficulty of their own service needs or their own errors in operations; in other words, consumers tend to attribute service failure to factors outside the robot.

**H1: Consumers are more likely to make internal attributions for service failure caused by robots high in anthropomorphism than they are for failure caused by robots low in anthropomorphism.**

Because consumers tend to make internal attributions to service failure caused by highly

anthropomorphized robots, they are more likely to attribute the failure to robots themselves and are less likely to forgive the failure.

**H2: Consumers are less likely to forgive service failure caused by robots high in anthropomorphism than they are to failure by robots low in anthropomorphism. This effect is mediated by consumers' attribution of service failure.**

Wan et al. (2011) argued that both communal and exchange relationships are norms, which influence individuals' expected behavior for each other as well as their responses to actual behavior. Under the norm of exchange relationships, consumers consider how much they have paid and how much they have gained in return. Consequently, consumers tend to attribute service failure to the difficulty of using these robots; this constitutes internal attribution, which is not affected by the level of robot anthropomorphism.

Under the norm of communal relationships, consumers consider the conditions and needs of their partners of exchange and emphasize their relationships. When service robots are highly anthropomorphized, consumers consider robots to be partners that understand their needs. Consequently, when service failure occurs, consumers tend to believe that the robots have not understood their needs and attribute responsibility for the failure to the robots. By contrast, when service robots have low anthropomorphism, consumers regard them as only a set of programs; therefore, when service failure occurs, because consumers consider the robots to have preestablished functions and specifications, they tend to attribute failure to the difficulty to satisfy

their service needs.

**H3: Under exchange relationship norms, consumers tend to make internal attributions of service failure regardless of the level of anthropomorphism in service robots; under communal relationship norms, consumers are less likely to make internal attributions for service failure caused by robots with low anthropomorphism than they are for failure caused by robots with high anthropomorphism.**

**H4: Moderated mediation: consumers' relationship norms moderate the effects of anthropomorphism levels on internal attribution, which in turn affects forgiveness of robot service failure.**

## **Method and Data**

### **Study 1**

Figure 1 displays the relationship between the variables in the conceptual model. In Study 1, data were collected and analyzed from a total of 94 participants. Participants were randomly assigned to conditions in two (high or low anthropomorphism video). Anthropomorphism significantly affected forgiveness ( $t_{(92)} = 3.47, p < 0.05$ ). Participants who viewed the service failure video of a robot with low anthropomorphism revealed higher forgiveness ( $M_{\text{High}} = 3.83$ ) than did those who viewed the service failure video of a robot with high anthropomorphism ( $M_{\text{Low}} = 3.23$ ). Thus, H1 was supported.

A mediator model was developed to estimate the effects of anthropomorphism level on

forgiveness by performing bootstrapping (5,000 samples) using the PROCESS macro (Model 4) (Hayes, 2013). Internal attribution mediated the effect of anthropomorphism on forgiveness (95% confidence interval [CI] [-0.51, -0.15]). Thus, H2 was supported.

## **Study 2**

A total of 117 undergraduate students were recruited from a university. Participants were randomly assigned to conditions in two (high or low anthropomorphism video) between-participant experimental designs. This study incorporated a mediator (internal attribution) in the analysis and tested a model to corroborate the moderated mediation hypothesis (H3) by using the PROCESS macro (Model 7) (Hayes, 2013). H3 proposed a substantial moderating effect of relationship norms (*Mod*) on the mediation path (from anthropomorphism levels, *X*, to internal attribution, *Med*). The results revealed a crucial interaction between anthropomorphism levels and relationship norms that affected the extent of generated internal attribution ( $t = 2.49, p < 0.05$ ). Thus, the first stage of the mediation model ( $X \rightarrow Med$ ) was moderated and consistent with H3.

When anthropomorphism was controlled, internal attribution exhibited a significant effect on forgiveness ( $Med \rightarrow Y; t_{\text{Forgiveness}} = -3.86; p < 0.01$ ). When internal attribution was controlled, the direct effect of anthropomorphism on forgiveness was no longer significant ( $t_{\text{Forgiveness}} = -1.38; p > 0.05$ ). These observations confirmed H4.

## **Summary of Findings**

This study examined the interactive relationship among service robot anthropomorphism,

consumer relationship norms, and consumers' involvement level when service failure occurs in the robots. The level anthropomorphism in service robots affects consumers' forgiveness of their service failure, which was mediated by consumers' internal attribution. When the robots were highly anthropomorphic, consumers were likely to internally attribute the robots' failure and not forgive it. By contrast, when the robots had low anthropomorphism, consumers may have viewed them as only tools with preestablished programs; consequently, consumers were less likely to make internal attributions for service failure and forgive the failure.

### **Statement of Key Contributions**

Service robots have become increasingly prevalent. For example, Siri by Apple, Alexa by Amazon, and customer service robots used by service firms frequently appear in consumers' daily lives. Therefore, research on the interaction between humans and service robots, particularly that on the influence of service robots on humans' consumption behavior, has become crucial. Past studies have indicated that product and service failures affect consumers' attitude toward service firms. Similarly, failure occurs in services provided by robots, such as the inability to solve or understand problems or erroneously respond to problems encountered by consumers. Because little research has focused on consumers' responses to service failures caused by service robots, this paper focuses on the effect of anthropomorphism in service robots on consumers' forgiveness of service failure to supplement research on interaction between humans and service robots.

The results of this study indicate that consumers' relationship norms affect their responses to

service failure caused by service robots. Accordingly, service firms can employ advertisements or service descriptions to manipulate consumers' relationship norms before implementing robots in their services, and this manipulation can reduce the harm of service failure. To mitigate the harm of service failure, service firms should minimize consumers' tendencies to make internal attributions. Therefore, they can reduce the anthropomorphism of robots to an appropriate level rather than maximize their anthropomorphism. Additionally, service firms should explain robot use and limitations to consumers before robot services are implemented to reduce the likelihood of consumers making internal attributions when service failure occurs.

The results of this study can clarify to service firms that at least two factors influence the effects of robot anthropomorphism on consumers' responses to service failure, namely relationship norms and involvement. Furthermore, excessive robot anthropomorphism can aggravate the negative effects of internal attribution.

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**The effects of AI chatbots' level of anthropomorphism on customers' experiential value and behavioral intentions in the pre-transaction stage of a service encounter**

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*Key-words:* AI chatbots, anthropomorphism, uncanny valley, customer experience, affect

*Description:* This study in progress explores the effect of different levels of AI chatbots' anthropomorphic design cues on customers' experiential value (i.e. emotions) in service delivery.

**ABSTRACT**

Despite the excitement about AI, customers continue to show a decrease in attitudes once humanoid robots become 'too human-like' – a phenomenon known as the "uncanny valley". This study in progress therefore explores emotions and related behaviors towards different levels of anthropomorphised design cues from AI chatbots in a service encounter.

**INTRODUCTION**

Chatbots leveraged by artificial intelligence (AI) point to radically transform the service and retailing landscape (Huang and Rust, 2020; Wirtz et al., 2018). Equipped with sophisticated technologies such as machine learning and natural language processing, they are able to understand complex and subtle conversations and to communicate with customers in a more natural, human-like way (Adam, Wessel, and Benlian, 2020). The opportunities and benefits



for the supply side seem manifold. For example, AI chatbots can assist human call center agents as automated advice givers to individual customer needs based on their analysis of customer sentiment and historical query data (Luo et al., 2019). In addition, they can easily up-scale customer service as they never get tired or sick like humans and are able to provide 24/7 support (Davenport and Ronanki, 2018). Forecasts suggest that AI chatbots are about to embark on a massive growth trajectory by 2025 (Research and Markets, 2020).

Despite the opportunities and excitement around AI chatbots, many challenges remain in the understanding of the customer experience, and how to optimally design and deploy AI chatbots in service encounters accordingly (Libai et al., 2020). At the center of past research attention within the field of human-robot interaction (HRI) is how individuals anthropomorphize nonhuman agents, and how these perceptions in turn affect their behavior (Epley, Waytz, and Cacioppo, 2007). Recent studies have linked anthropomorphism with AI-based agents and suggest that one of the key challenges for organizations is customer pushback related to feelings of uncanniness once robots become ‘too human-like’ - a phenomenon known as the “uncanny valley” (Mori, 1970). For example, Kim, Schmitt, and Thalmann (2019) propose that anthropomorphizing humanoid service agents increases their perceived warmth but decreases customer attitudes. Thus, the level of anthropomorphism may have substantial effect on company-related outcomes, but little is known about AI chatbots in particular (Sheehan, Jin, and Gottlieb, 2020). In this vein, one of the key questions for marketers has been largely ignored: how do customers perceive anthropomorphized AI chatbots *emotionally* when they encounter them in service settings? Though investigations on emotions related to affective response by means of pleasure (positive-negative) and arousal (energized-enervated) (Russell, 1980; 2003) are not a new field for research on customer behavior from technologies in service and retailing settings it has been hitherto neglected in consideration of AI chatbots (Araujo, 2018). Another point is that extant findings for

customer perceptions of anthropomorphism are purely based on subjective measures (Adam et al., 2020). However, these measures are believed to be insufficient as they only report explicit human processes (Verhulst et al., 2019). In the absence of physiological foundation, marketing theorists and practitioners will be restricted to theorizing about implicit perceptions of anthropomorphism and thus left in the dark how to optimally employ AI chatbots in service encounters.

Against this backdrop, it is argued that research is needed to gain more thorough understanding of the effects of anthropomorphism on emotions induced from the interaction with AI chatbots in service encounters as well as related behavioral consequences, and what implications this has for marketing theory and practice. Guided by a research call from Hoyer et al. (2020), this study in progress explores how different levels of AI chatbots' anthropomorphism influence customers' experiential value and behavioral intentions in a pre-transaction stage of a service encounter. The purpose is to provide insights on how AI chatbots should be employed in service encounters to enhance the customer experience based on the following main research question: *How do AI chatbots' different levels of anthropomorphism trigger customers' experiential value and behavioral intentions in service encounters?* The main objective is to examine customers' experiential value (e.g., affective response) induced by different levels of AI chatbots' anthropomorphism as indicator to favorable behavioral intentions (e.g., purchase intention).

## **THEORETICAL BACKGROUND**

### ***Anthropomorphism and the Uncanny Valley***

The term 'anthropomorphism' refers to the attribution of human-like characteristics, behaviors, and emotions to nonhuman agents (Epley et al., 2007), where agent has developed into an established term for anthropomorphized computer-based interfaces in service settings. In this paper, anthropomorphism is discussed in the context of AI chatbots as humanoid

service agents. A huge body of research has linked anthropomorphism with individual differences and consequent behaviors (e.g. Duffy, 2003; Epley et al., 2007;). This focus of research was first proposed by Mori (1970) in what it is nowadays called the uncanny valley theory. Accordingly, individuals attribute affinity towards increased human-likeness of robots, but only up to a certain threshold. When the robot's expressive display of emotions, body movement, voice, and verbal content strongly resembles an individual but is not a perfect copy of it, individuals tend to perceive these robots as a threat with the result that their reactions turn strongly negative (Mori, 1970). Consequently, a major subject of research in HRI is to explain why or at which level customers reject anthropomorphized objects.

In general, it has been found that when individuals are presented with computer systems possessing anthropomorphic cues that are normally associated with human appearance (e.g. gender and ethnicity stereotypes) or human behavior (e.g. language, ability to interact), individuals mindlessly apply social rules and expectations to those systems (Nass and Moon, 2000), something which also applies to HRI as well (Epley et al., 2007). As a result, robots' anthropomorphic design cues have been identified as significant drivers to favorable customer responses that can for example increase trust and social bonding with the firm (Wirtz et al., 2018). Likewise, it was shown that individual differences play major role in this regard as they can affect the customer experience and related behaviors (Epley et al., 2007; Waytz, Cacioppo, and Epley, 2010). It therefore seems valuable to advance understanding on the customer experience from anthropomorphized AI chatbots' from an experiential and behavioral view.

Consequently, the question arises which anthropomorphic cues from AI chatbots and which level of those can enhance experiential value and behavioral intentions in service encounters. Compared to conventional chatbots, AI chatbots allow for more flexible anthropomorphic designs (e.g. facial expressions). Besides two exceptions (Adam et al.,

2020; Araujo, 2018), however, no other studies have specifically targeted AI chatbots to extend past research on the effects of anthropomorphism in service encounters. As such, research on individual perceptions towards anthropomorphised AI chatbots can be a useful complement to understanding the human perspective in HRI.

***The Customer Experience from AI Chatbots along the Customer/Shopper Journey***

A key challenge for service and retailing organizations is to provide seamless shopping experiences customers will like to repeat. Both researchers and practitioners emphasize the potential advantages AI-chatbots in this regard, highlighting the opportunities of enhanced customer experiences at reduced costs and increased time-efficiency (Davenport and Ronanki, 2018; Wirtz et al., 2018). There has been a plethora of recent publications in marketing and service on the expected roles and developments of nonhuman objects that fall under the rubric of AI-based service agents (e.g. Huang and Rust, 2020; Libai et al., 2020). There is consensus that nonhuman service agents promoting self-service channels, such as AI chatbots, promise to be fast, convenient, and cost-effective solutions to 24/7 customer support. In addition, by mimicking human-like interactions, AI chatbots have the potential to evoke interpersonal relationships with customers (Adam et al., 2020). Nonetheless, this is largely dependent on individual characteristics (Epley et al., 2007; Waytz et al., 2010), indicating that affective and behavioral response to AI chatbots' recommendations and requests are likely to be affected as well. Therefore it seems specifically relevant to understand how anthropomorphised design cues influence customers' experiential value and behavioral intentions at an early stage of the interaction process.

A major avenue of customer experience research has pursued the customer's contact with a company as a customer journey along experience touchpoints. Lemon and Verhoef (2016) conceptualize the customer experience as a customer journey with a firm over time: from pre-transaction to transaction to post-transaction. In each of these stages, customers

interact with firms through various touchpoints depending on the nature of the product and/or the channel/environment. Hoyer et al. (2020) build on this theory and discuss experiential value as one of the customer experience dimensions from various AI-powered technologies according to the customer/shopper journey based on Lemon and Verhoef (2016) and Shankar et al. (2016). Experiential value in turn is conceptualized in three dimensions of value that customers receive as a result of interacting with AI-powered technologies: cognitive value (e.g., information processing, decision-making), sensory/emotional value (e.g., sensory stimulation, emotional attachment), and social value (e.g., humanizing the interaction) (Hoyer et al., 2020). The authors propose that AI chatbots could be particularly beneficial for customer service purposes at the pre-purchase stage as they provide greater sensory stimulation as well as a richer experience. Finally, they call for further research on the nature and types of emotional/sensory stimulation by AI-powered technologies and how this varies across contexts (Hoyer et al., 2020).

### ***The Role of Emotions in the Customer Experience from AI chatbots***

Another dominant research avenue in customer experience research related to service and retailing settings is how emotions affect customer reactions and the overall experience with a technology. Thüring and Mahlke (2007) conceptualize any experience with a technology as a compound of non-instrumental and instrumental quality features which influence emotional as well as behavioral responses. In the context of AI chatbots, non-instrumental features can be referred to the visual appearance, while instrumental features denote to the ‘inner values’, such as the level of intelligence. Due to the scope of this study in progress, the focus is on anthropomorphic features exclusively. Despite a host of studies on customer reactions towards different levels of anthropomorphism, the influence on emotions has received scarce attention (Bartneck et al., 2009). Though the uncanny valley approach (Mori, 1970) predicts differential customer experience of negative and positive affect as a function of human

likeness, it is unknown how AI chatbots' anthropomorphic features influence customers' affective response.

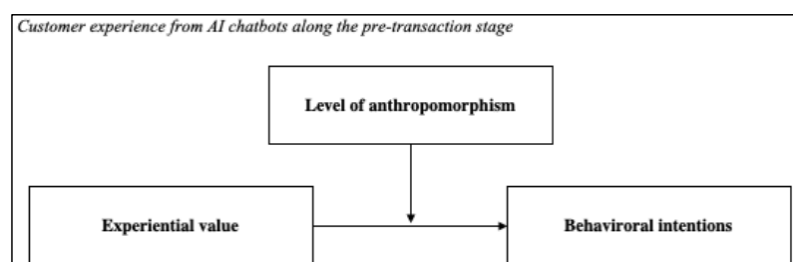
The theory of arousal by means of pleasure (positive-negative) and arousal (energized-energated), which together have been conceptualized as core affect (Russell, 2003), may provide a fruitful avenue in this regard. Past studies have shown that customers' neurophysiological responses related to core affect enable further understanding of customer behavior (Hatfield, Cacioppo, and Rapson, 1993). Though there have been recent attempts to link anthropomorphism with affective and behavioral responses in online service delivery (Yuan and Dennis, 2019), research has hitherto neglected AI chatbots in this regard. Therefore, our investigations will include neurophysiological responses as well.

## METHODOLOGY

### *Conceptual Model*

Extant research has established the conceptual structure of a customer experience from AI chatbots along the different stages of the customer journey. It is assumed that customers attribute likeliness to anthropomorphized service agents, but only up to a certain threshold due to feelings of uncanniness. Individual perceptions of anthropomorphism may play a moderating role in this regard. Similarly, experiential values, specifically those related to emotions of core affect, and their influence on behavioral intentions relevant to service encounters in the pre-purchase stage have yet to be examined. To address these issues, this study in progress proposes a conceptual model based on Hoyer et al. (2020) (cf. Figure 1).

**Figure 1.** *Basic conceptual model*



***Hypotheses development***

Our first hypothesis is sought to explore the direct effect of experiential value on behavioral intentions, supporting the AI chatbot behavior – anthropomorphism relationship at the initial stage of the customer journey. Hoyer et al. (2020) conceptualize experiential value as a three-dimensional concept of cognitive, sensory/emotional, and social experience. The authors highlight the need for further research on experiential value based on these three dimensions to advance understanding of the customer experience along the customer journey. Though the work from Mathwick et al. (2001) points into this direction, to our knowledge, no study so far has provided measurement of the experiential value in the service environment. However, in a similar vein, recent studies have linked AI chatbots' anthropomorphism with customers' emotions (as part of the experiential value) and the consequent behaviors, indicating that chatbots possessing more anthropomorphic cues generated stronger emotional connections as well as more positive behavioral responses as for example increased trust and benevolence (Araujo, 2018; Wirtz et al., 2018). Therefore, the following hypothesis is proposed:

H1. Experiential value (i.e. cognitive, sensory/emotional, social) has a direct positive effect on behavioral intentions.

The second hypothesis examines the effect of anthropomorphism on the relation between experiential value and behavioral intentions. As previously discussed, several studies have discussed the effect of anthropomorphic features on customer reactions based on other humanoid service agents than AI chatbots. However, connecting recent empirical findings on the uncanny valley approach in service research (e.g., Kim et al., 2019), an anthropomorphic AI chatbot may contribute to favorable customer behaviors – but only up to a certain threshold. In addition, perceptions of anthropomorphism are to a large part subject of individual differences (Epley et al., 2007; Nass and Moon, 2000). Hence, the same

anthropomorphized AI chatbot may be perceived differently across customers, positively and negatively. In consequence, the following hypothesis is proposed:

H2. AI chatbots' level of anthropomorphism moderates the relationship between experiential value and behavioral intentions.

### ***Research Design***

Briefly, this study in progress explores through an online survey in combination with a laboratory neuroscience experiment the impact and implications of AI chatbots' anthropomorphism on customers' experiential value and behavioral intentions. Focusing on the human rather than the robot-based perspective, different levels of anthropomorphism as a moderator are used to provide further evidence for the uncanny valley theory as an explanation for customer behavior. Extant neuroscience studies indicate the prefrontal cortex is activated in implicit processing and valuation processes (Boksem and Smidts, 2015), so that it helps monitoring affective response (Genevsky, Yoon, and Knutson, 2017). Hence, it seems valuable to employ functional near-infrared spectroscopy (fNIRS) and/or electroencephalogram (EEG) to record change of blood flows or neural patterns in brain areas related to valence (positive and negative) in response to AI chatbots. Further, skin conductance response (SCR) could provide additional insights on arousal (Verhulst et al., 2019). Yet, there is still a call for action to reach meaningful insights in relation with HRI in service encounters (Caruelle et al., 2019).

At the center of this study are emotions related to the experiential value from AI chatbot interaction. In this vein, affective responses towards AI chatbots by means of pleasure (positive-negative) and arousal (energized-energated) (Russell, 2003) will be investigated through subjective responses (assessed through an online survey) in combination with neuroscience measures (assessed through a laboratory experiment). More specifically,



the online survey will assess the effect of the three experiential value dimensions on behavioral intentions as well as the potential moderating effect of anthropomorphism in this regard. The laboratory experiment will monitor neurophysiological responses (i.e. pleasure and arousal) to complement the survey data. Regardless of the methodology, participants will be randomly assigned to one of the two conditions of AI chatbots' anthropomorphism based on a continuum of low vs. high. Then, participants will interact with the AI chatbots for approx.. 5min. while performing typical actions related to the initial stage of a service encounter (e.g., information seeking, request for advise). Subsequently, they are asked to complete a short survey measuring their perceptions of pleasure, arousal, and anthropomorphism.

### **EXPECTED CONTRIBUTION**

Our study in progress provides important contribution to the field of marketing in terms of theory development and application pertaining to AI chatbots in service encounters. This contribution is in line with the Marketing Science Institute's (MSI) research priorities 2020-2022, helping to fuel better marketing decisions through accelerating information technologies (MSI, 2020). Besides, our multidisciplinary approach helps to curb the gap between customer intentions and behavior though the examination of implicit and explicit responses. Similarly, in vein with the research call from Hoyer et al. (2020), our study may advance understanding on measuring the three-dimensional structure of experiential value in service encounters.

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## **VERTICAL REPOSITIONING: ADDITIONAL STRATEGIES TO SURVIVE RETAIL BANKRUPTCY**

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**Keywords:** Retail Bankruptcy, Firm Survival Strategies, Vertical Repositioning, Assets and Capabilities, Financial Ratios

**Description:** To help retailers facing a high bankruptcy risk attain financial viability and survive the threat, this article examines additional survival strategies in the form of vertical repositioning and the assets and capabilities required to implement them.

### **EXTENDED ABSTRACT**

#### **Research Question**

Widespread store closures, mounting debts, changing consumer preferences, stiff competition from e-commerce, and disruptive technology advancements are playing havoc with the lives of various retailers. Big and small retailers alike are facing this pressure and inability to adapt to this changing environment is wiping out their very existence. Scholars have already proposed numerous strategies to help retailers face this threat and various retailers are already implementing some of these strategies. But in spite of this, retail bankruptcies are rising alarmingly since 2015, indicating the need to devise new strategies. Our research is an attempt to

find a viable solution to this need – what additional strategies can these distress retailers implement in order to survive the bankruptcy threat?

### **Summary of Findings**

We identify three main vertical repositioning strategies that can apply to mid-sized brick and mortar retailers – a) to become a wholesaler or acquire related functionalities by moving one-link up the chain, b) to become a manufacturer or acquire related functionalities by moving two-links up the chain and c) to become a logistics service provider or acquire related functionalities which breaks- the-chain of being engaged in selling products as a core business. Financial analysis performed on data published by the Risk Management Association (RMA) support these strategies across various industry segments.

We also identify assets and capabilities across four divisions – marketing, distribution, technology, and management, that can aid distressed retailers in implementing our proposed repositioning strategies. While we have outlined these vertical repositioning strategies, individual retailers will have to examine which strategy makes sense for them based on their assets, capabilities, resources, and financial situation.

### **Key Contributions**

This article primarily contributes to the literature by proposing a potential set of strategies that could help distressed retailers survive the threat of bankruptcy. We propose that over and above the existing strategies that focus on retailers continuing to be in the retailing business, retailers should additionally examine the feasibility of strategic adaptations “vertically”, i.e., exploring the possibility of either moving up the supply chain or acquiring and integrating those capabilities, ensuring profitability in the process. The proposed strategies can motivate retailers

to think beyond their core retailing business and operate in alternate business segments rather than going out of the retailing business and terminating all operations when they file for bankruptcy.

We also contribute to the literature on strategic assets and capabilities by identifying a set of assets and capabilities required to implement the proposed strategies. Practitioners and retail industry managers can refer to this set and evaluate their current standing with respect to the proposed framework. This process will help them to identify and deploy already existing assets and capabilities to move up the supply chain and acquire additional ones that they are currently missing in order to facilitate the upward movement.

References are available upon request.

# **Product Development and Innovation**

# DOES PRODUCT QUALITY MATTER? IF SO, WHY DO PRODUCT ATTRIBUTE ENHANCEMENTS OFTEN FAIL TO HAVE THE INTENDED IMPACT ON USER SATISFACTION?

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## Abstract

Product managers continually enhance product attributes to make them more attractive and valuable for the users and to retain or gain market share. However, as resources are limited, organizations have to prioritize the upgrade of quality attributes in need of improvement. Currently product attributes prioritization techniques rank attributes for improvement based on either user importance of attributes, or on current level of performance of attributes or on a combination of both. We examine the efficacy of these three different approaches by assessing the degree of impact of product attributes prioritized by using these techniques on user satisfaction of task management softwares. The investigations lead us to identify their shortcomings and suggest a new method of prioritizing product attributes for maximum impact on user satisfaction. The results of the study have useful implications for correctly assessing user satisfaction impacts of quality improvement initiatives.

## Keywords

Importance-performance analysis, binary search tree, penalty-reward contrast analysis

## Introduction

Quality and user satisfaction are considered to be key drivers of product performance. It is argued that higher quality satisfaction with the products leads to increased loyalty, reduced price elasticity, increased cross-buying, and positive word of mouth. Numerous empirical studies confirm a positive relationship between customer satisfaction and profitability (e.g., Anderson, Fornell, & Lehmann, 1994; Eklof, Hackl, & Westlund, 1999; Ittner & Larcker, 1998; Kakar

## Statement of Key Contribution

The study demonstrates that the relationship between users' importance of a product attribute, its current level of performance and the impact of their enhancement on user satisfaction with the product is much more complex. It is dependent not only on the current performance of the product attribute but also on the current level of overall user satisfaction with the software product. If these factors are not considered software development projects may not be able to accurately identify product attributes for improvements.

The study thus makes useful contribution by taking in consideration the complexities in attribute prioritization and suggesting a superior approach to select attributes for improvement. As stakes become higher in the market place, software product managers should have access to the best methods and tools for managing user satisfaction. It will not only help them to retain their user base but also attract new users. It will also enable organizations to conserve scarce resources by selecting the right attributes for product improvement. Although the study was conducted for a software product, the findings of the study can apply to a wide range of consumer durable and industrial products and could be interesting area for future research to explore.

2012a,b,c). For industrial products, the importance of assessing and managing customer/ user satisfaction is widely recognized (e.g., Tikkanen, Alajoutsija-Rvi, and Tahtinen, 2000; kakar, 2014). End-user satisfaction is also an important area of IS (information systems) research because it is considered a significant factor in measuring success and use (Ives, Olson, and Baroudi, 1983; Torkzadeh and Doll, 1991; Delone and Mc Lean, 1992; Seddon, 1997; Kakar 2018a,b,c,d,e,f).



As stakes become higher in the market place, managing user satisfaction has become an increasingly important goal of software product managers but organizations do not have unlimited resources to satisfy all user demands for enhancing software product attributes. They also have to consider the return on investments made in improving software attributes. Thus, prioritizing improvements in software attributes is critical for software product performance. To accomplish this researchers and practitioners have proposed various prioritization techniques.

A closer examination of these techniques show that while the various prioritization techniques are different from each other in their operationalization, they use one of the three approaches. They rank attributes for improvement based on either user importance of attributes, or on current level of performance of attributes or a combination of both. The techniques which use importance of attributes as a basis for prioritization rank attributes in the order of importance to the user. The assumption is that the greater the importance of an attribute the higher will be its impact on user satisfaction when enhanced. However, this approach has a drawback. If the performance of that attribute is already high then improving it further may not have commensurate impact on user satisfaction even though the attribute is important to the user for two reasons. First, more resources are needed to improve an attribute already performing at a high level than to improve an attribute performing at a low level. Secondly the impact on the user by improving this attribute may not be as high as when a low performing but important attribute is improved.

Techniques which use attribute performance as a basis have an advantage as they rank software attributes based on users' performance perception. The lower the performance perception the higher the priority assigned for improvement. This approach is very commonly applied in most user satisfaction surveys where users are asked their performance rating of software quality attributes with a view to prioritizing improvements. However, this approach also has a drawback. If a low performing attribute is not important to the user then enhancing it may not have as high an impact on user satisfaction as perhaps an attribute that is slightly higher performing but also has higher importance to the user.

The third approach tries to overcome the limitations of these two aforementioned approaches by considering both user importance as well as user perceived performance of the attribute. In this

approach attributes high in importance but low in performance are ranked as higher priority for improvement. However, this approach makes an assumption about importance and performance of an attribute as independent dimensions. The approach is likely to fail if importance and performance if users' attribute importance is related to attribute performance.

Given the above benefits and drawbacks of the three software prioritization approaches, we conduct a study with the users of task management in a public university to seek answers to the following questions: how effective are these three approaches in prioritizing software attributes for maximum impact on user satisfaction? Which approach has the highest efficacy? Is there anything we can do to mitigate the drawbacks of these approaches and build on their strengths with a view to accurately identifying the software attributes in need for improvement and maximizing user satisfaction through their enhancement? The findings and suggestions made in this study have useful implications for practitioners and future research by revealing the shortcomings of all three approaches. We also suggest a new technique for accurately prioritizing software attributes which when enhanced will have the greatest impacts on user satisfaction.

## Literature review

### *User satisfaction*

User satisfaction is one of the most prevalent and enduring measures of software success and use (Ives, Olson and Baroudi, 1983; Torkzadeh and Doll, 1991; Delone and Mc Lean, 1992; Seddon, 1997; Zviran and Erlich, 2003; Kakar, 2016a,b,c,d,e). The concept of user satisfaction can be traced to the work of Cyert and March (1963) who proposed that an information system which met the needs of its users would reinforce satisfaction with the system. In the early 1970s, Powers and Dickson (1973) studied factors affecting user success and identified user satisfaction as one of the key factors affecting it. They assumed that if users are satisfied with an is, they use it. Therefore, satisfaction is a good measure of user success. If the users do not perceive a system as satisfactory, they are unlikely to use it. Thus, in order to improve a system, it is important to know how its users perceive it, and where its weak points lie.

The reason for the popularity of user satisfaction as a measure of software success is the difficulty of operationalizing economics-based constructs, thus accelerating the search for constructs for which variables could be identified and more easily

measured (e.g., Powers and Dickson, 1973; Nolan and Seward, 1974; Treacy, 1985; Elam, Henderson and Thomas, 1984; Kakar 2020a,b,c,d,e,f). Gelderman (1998) found that user satisfaction was significantly related to system performance factors “providing empirical evidence for the popular assumption that user satisfaction is the most appropriate measure for its success available”.

As software projects are often constrained by limited resources, project managers must decide how to deploy the scarce resources parsimoniously to achieve the highest level of user-satisfaction (alves, 2003), thus, the challenge for the product managers is to determine which attributes when implemented into the software will maximize user satisfaction. While literature is replete with a number of techniques for prioritization of attributes we choose the three most common techniques based on their underlying principles or approaches used.

**PRCA (Penalty Reward Contrast Analysis)**

Penalty reward contrast analysis (e.g., Brandt, 1987; Anderson & Mittal, 2000; Brandt, 1988; Matzler & Sauerwein, 2002; Mittal, Ross, & Baldasare, 1998) technique is used for prioritizing attributes based on the user perception of the performance of the attributes. It also measures their impacts on user satisfaction. In PRCA two sets of dummy variables are created for each attribute. One set of dummy variables is used to quantify high performing

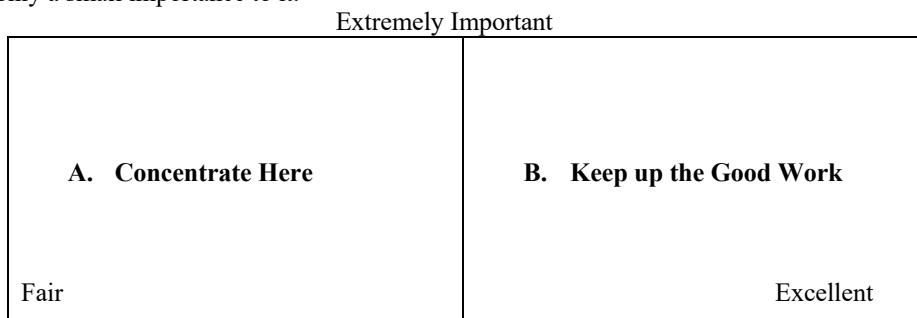
attributes, and another set was created to quantify low performing attributes. In order to conduct the analysis, “low performance” is coded (0,1), “high performance” (1,0), and “average performance” (0,0). Based on this coding scheme, a multiple regression analysis is conducted by regressing the dummy variables so created on user satisfaction with the software. The results of the regression provides two sets of regression coefficients - one to measure the impact of the attribute on user satisfaction when the performance is low, the other one when the performance is high (Matzler, Bailom, Hinterhuber, Renzl and Pichler, 2004).

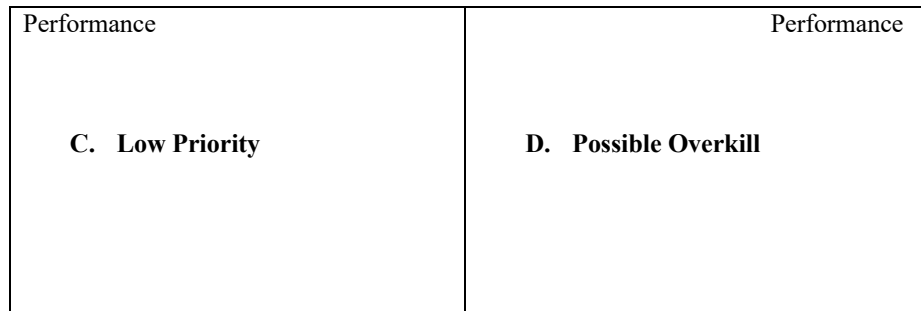
**IPA (importance–performance analysis)**

Importance–performance analysis analyses quality attributes on two dimensions: their performance level and their importance to the customer. Evaluations of attributes on these two dimensions are then combined into a matrix that allows a firm to identify key drivers of satisfaction, to formulate improvement priorities, and to find areas of possible overkill and areas of “acceptable” disadvantages (Matzler, Bailom, Hinterhuber, Renzl and Pichler, 2004) (see Figure 1).

The importance-performance grid is constructed by plotting an attribute based on their current performance and their importance to the user. The importance-performance axes intersect at mean importance and mean performance. Attributes plotted in each of these quadrants are interpreted as follows:

- A. Concentrate here.** Users feel that the attribute is very important but indicate low satisfaction with performance.
- B. Keep up with the good work.** Users value this attribute and are pleased with its performance
- C. Low priority.** The product is rated low on this attribute but users do not perceive it to be important.
- D. Possible overkill.** The product is perceived to be high in performance with respect to this attribute but the user attaches only a small importance to it.





Slightly Important

**Figure 1. Importance-Performance Analysis**

In practice, IPA is considered a simple but effective tool (e.g., Hansen & Bush, 1999). It is potentially helpful in deciding how to best allocate scarce resources in order to maximize satisfaction.

## Method

### Study setting

149 users of an task management softwares at a large public university answered a pencil and paper survey. Data was collected on users' importance and rating of current level of performance of the following 6 product attributes – functionality, reliability, portability, efficiency, usability and maintainability - using relevant items from the scale developed by Alrawashdeh, Muhairat and Althunibat (2013) based on the ISO 9126 (2001) mode (see appendix A for details).

### Method of analyses

To establish reliability and validity of the measures used in the study factor analysis was performed and internal reliabilities and correlation matrix of the measures were examined. After establishing the reliability and validity of the measures and based on the attribute importance and performance rating of the users a prioritized list of attributes was created for each of the three techniques and their impact on user satisfaction estimated.

### Procedure and controls

The survey instrument was designed to minimize compounding and order effects. If the respondent is asked in one question about the importance of an

attribute and in the next question about his performance with that attribute, his answer to the first may influence his response to the second. By grouping all of the importance questions in one section and all performance questions in a later section, a temporal separation is created. Past research demonstrates that the temporal separation between measures reduces potential effects due to common method variance (sharma et al., 2009).

A sample question for performance of an item in the usability attribute scale included: “how easy is it to use the task management system?” anchored at 9 = extremely and 1 = not at all. A sample question for importance of an item in the usability attribute scale was: “how important is it to be able to easily use the task management system?” Anchored at 9 = critical and 1 = not at all. The overall satisfaction with task management was measured by asking the question “how satisfied are you with the task management system” anchored at 9=extremely and 1= not at all.

## Results and Analysis

1. The factor analysis (see appendix b) procedure was done using IBM SPSS statistics version 19. Dimension reduction was performed on the data pertaining to all the 6 measurement scales. The results of varimax rotation show that the 6 factors extracted represented each of the 6 scales. All items of a scale loaded on the respective factors with no significant (> .40) cross loading between factors. We then measured the internal reliabilities of the scales used in the study. As can be seen from the table 1, the alpha reliabilities are all greater than .70.

Name of the scale	Cronbach's alpha	Number of items
Functionality	.956	5
Reliability	.941	4
Portability	.889	4
Usability	.862	5
Maintainability	.884	4
Efficiency	.785	3

**Table 1. Internal reliability of scales**

2. Functionality and reliability were at the highest level of user importance (see table 4) according to binary search tree (ranks 1 and 2) and therefore it recommends investing in improving their performance to increase user satisfaction. IPA recommends a status quo (see figure 2) on functionality and reliability as even though the attributes are high in user importance investing in

further enhancing functionality and reliability would probably give diminishing returns as they are already performing at a high level. PRCA recommends investing in enhancing functionality as it would increase user satisfaction irrespective of the current level of performance (see table 3). However, it recommends investing in reliability only at low performance to prevent dissatisfaction.

Name of the scale	Importance	Performance
Functionality	7.12	6.98
Reliability	7.32	6.73
Portability	3.17	3.88
Usability	8.62	4.11
Maintainability	8.84	4.21
Efficiency	3.78	7.11

**Table 2. Users' importance-performance ratings**

3. Efficiency ranked 5 (out of 6 ranks) in importance rating by binary search tree (table 4) and therefore this attribute would be low in its priority for further improvements. IPA suggests concentrating on

efficiency is an overkill (figure 2), PRCA recommends that investing in improving efficiency at low performance can increase user satisfaction but not at high performance.

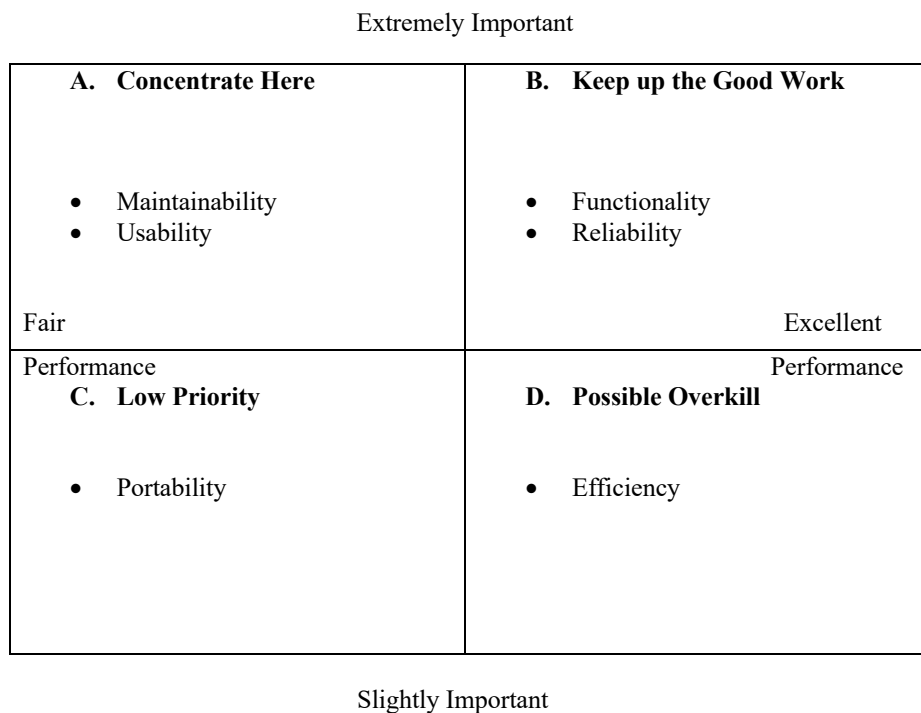
Name of the scale	High Performance	Low Performance
Functionality	.312 **	-.319**
Reliability	.042	-.276**
Portability	.046	.097
Usability	.006	-.391***
Maintainability	.062	-.276**
Efficiency	.056	-.156*

\* p < .05 \*\* P < .01 \*\*\*p<.001

**Table 3. Results of PRCA**

4. Binary search tree accords medium priority (ranks 3 and 4) for improvements in usability and maintainability (table 4) while IPA recommends highest priority be given to maintainability and usability attributes (figure 2), PRCA recommends that at low performance this focus is important to invest in enhancing maintainability and usability but at high performance it is not remunerative (table 3).

5. Portability and efficiency are the only attributes where there seems to be a consensus among all methods – binary search tree IPA and PRCA – that investing in their improvement would be unremunerative.



**Figure 2. IPA for Task Management Software attributes**

Name of the scale	Ranks
Functionality	1
Reliability	2
Portability	6
Usability	3
Maintainability	4
Efficiency	5

**Table 4. Results of Binary Search**

## Discussion

The results of the study (Table 5) show that all three methods were consistent in identifying low priority attributes for enhancement. However, the three

methods identified different high priority attributes for improvement. We explore the reasons for these findings.

Method	Top two software attributes	Bottom two software attributes
<b>BST</b>	Functionality	Efficiency
	Reliability	Portability
<b>PRCA</b>	Functionality	Portability
	Usability	Efficiency
<b>Ipa</b>	Maintainability	Efficiency
	Usability	Portability

**Table 5. Low priority and high priority attributes identified by the three methods**

If the importance of attribute was negatively correlated with performance then both BST and PRCA which are based on importance and performance of attributes respectively to give consistent results. An attribute high in performance would be low in importance and an attribute low in performance would be high in importance. Thus, the BST approach of selecting attributes high in importance and PRCA approach of selecting attributes low in performance would have given similar results. But as the results of the study (table 2) show, this does not seem to be the case as the importance of some attributes such as functionality was high irrespective of the current level of performance. For other attributes such as portability the importance was low (insignificant) irrespective of performance. The importance of other attributes such as reliability, usability, maintainability and efficiency was high at low performance levels but insignificant

at high performance level. Thus, even PRCA is not appropriate method. Further, the non-significant person correlation coefficient confirmed that attribute importance and performance were not correlated, explaining the difference in results between BST and PRCA.

The lack of correlation between attribute importance and performance implies that both are independent constructs. Hence the lack of correlation between importance and performance also suggests that we can expect IPA to be a valid technique for prioritization of attributes. IPA identified usability and maintainability as two highest priority attributes. However, the sum of the absolute values of the standardized coefficients (table 3) show that functionality had a higher impact on user satisfaction than both usability and maintainability indicating a higher range of impact on overall user satisfaction.

Thus, even though unlike BST and PRCA the assumptions underlying IPA are valid, it is not the most effective method of identifying high priority attributes.

From the user satisfaction impact perspective, PRCA appears to be the most effective technique. Technique. The two high priority attributes identified by PRCA i.e. Functionality and usability had the highest impact on user satisfaction (table 3) from among all the three methods. Although, PRCA methods is based on attribute performance it also provides additional information to decision makers such as user satisfaction impacts of attribute enhancements under two scenarios, one when the attribute performance is high and another when the attribute performance is low. The sum of the absolute values of the standardized coefficients (table 3) obtained by PRCA represent the magnitude of attribute impact on overall user satisfaction.

The attributes which have a -ve standardized coefficient at low attribute performance but +ve standardized coefficient at high performance are “dissatisfiers”. Such attributes can prevent dissatisfaction but do not enhance satisfaction. From table 3 we can see that reliability, usability,

maintainability and efficiency are dissatisfiers. Improving attributes such as functionality (table 3) can increase satisfaction at both high and low performance. Some attributes such as portability do not have significant impact on satisfaction at both high and low performance indicating user indifference with these attributes. Thus, PRCA provides product/ project managers with much more useful information for making trade-off decisions than both IPA and binary search tree.

However, although PRCA provides additional insights for prioritization of software attributes, it does not take into consideration the impact of the level of overall performance of software on prioritization of attributes. For example, do dissatisfiers such as reliability remain dissatisfiers at low as well as high overall user satisfaction with the software product? To examine this, we explore a new approach for prioritizing attributes. In this new approach we perform two regression analyses one with users whose overall satisfaction with task management was 1sd (standard deviation) above mean and another with users whose overall satisfaction with task management was 1 sd below mean.

Name of the scale	High Performance	Low Performance
Functionality	.256 **	-.531**
Reliability	.071	-.467**
Portability	.031	.064
Usability	.222*	-.463***
Maintainability	.054	-.311**
Efficiency	.123*	-.241**

\* p < .05 \*\* p < .01 \*\*\* p < .001

**Table 6. Results of PRCA at low user satisfaction**

The results of this analyses show that at low overall user satisfaction the dissatisfaction potential of attribute increases as evidences from the magnitudes of the standardized coefficients in table 6. Further usability and efficiency attributes were no longer dissatisfiers at low overall user satisfaction. At high overall user portability became a “satisfier” i.e. At low performance it does not cause significant

dissatisfaction but at high performance it has the potential to increase user satisfaction significantly (table 7). This insight of investing in portability at high level of task management performance comes only when product performance is taken into consideration. All three methods – binary search tree IPA and PRCA had recommended against investing in its improvement.

Name of the scale	High Performance	Low Performance
Functionality	.187**	-.243*
Reliability	.027	-.133*
Portability	.315**	.047
Usability	.092	-.154***
Maintainability	.049	-.267**
Efficiency	.043	-.213*

\* p < .05 \*\* p < .01 \*\*\* p < .001

**Table 7. Results of PRCA at high user satisfaction**

Further analyzing results from tables 5 and 6 certain general and actionable observations can be made by project/ product managers. Reliability and maintainability attributes were consistently a dissatisfiers across all attribute and product performance levels. Functionality was consistently capable of satisfying at high performance level and dissatisfying at low performance level. Thus, the safest bet for improving performance (user satisfaction) levels with task management is to improve its functionality. Improving reliability or maintainability will not help in enhancing satisfaction levels but can prevent dissatisfaction. Further improving portability will enhance overall product performance only when the current level of user satisfaction with task management is high.

### Contribution

In response to user demands project/ product manager have to often decide between conflicting user demands and priorities for improvement in performance of product attributes. To address this problem various techniques have been developed for managing the trade-offs involved in making this decision. This study compares three popular techniques for their efficacy in identifying the priority of attributes. Based on the results obtained the study calls into question the applicability of all the three assessed techniques – binary search tree, IPA and PRCA - explaining why software quality

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attribute enhancements often fail to have the intended impact on user satisfaction.

The study demonstrates that the relationship between users' importance of a product attribute, its current level of performance and the impact of their enhancement on user satisfaction with the product is much more complex. It is dependent not only on the current performance of the product attribute but also on the current level of overall user satisfaction with the software product. If these factors are not considered software development projects may not be able to accurately identify product attributes for improvements.

The study thus makes useful contribution by taking in consideration the complexities in attribute prioritization and suggesting a superior approach to select attributes for improvement. As stakes become higher in the market place, software product managers should have access to the best methods and tools for managing user satisfaction. It will not only help them to retain their user base but also attract new users. It will also enable organizations to conserve scarce resources by selecting the right attributes for product improvement. Although the study was conducted for a software product, the findings of the study can apply to a wide range of consumer durable and industrial products and could be interesting area for future research to explore.

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## APPENDIX A

	<b>Functionality</b>
<b>F1</b>	Can the task management software perform the required functions?
<b>F2</b>	Are the results of task management software as anticipated?
<b>F3</b>	Can the task management software interact with other systems
<b>F3</b>	Can the task management system prevent unauthorized access?
<b>F5</b>	Does the task management system adhere to the applications standards and regulations of the law?
	<b>Reliability</b>
<b>R1</b>	Have the faults in the task management software been eliminated over time?
<b>R2</b>	Is the task management system capable to maintain a specified level of performance in case of software and hardware errors?
<b>R3</b>	Can the task management system resume working and recover affected data in case of a failure?
<b>R4</b>	Does the task management software adhere to the existing reliability standards?
	<b>Usability</b>
<b>U1</b>	Does the task management user recognize how to use the system easily?
<b>U2</b>	Can the task management system be learnt easily?
<b>U3</b>	Can the task management system work with a minimal effort?
<b>U4</b>	Does the task management interface look good?
<b>U5</b>	Does the task management software meet the existing usability standards?
	<b>Efficiency</b>
<b>E1</b>	How quickly does the task management system respond?
<b>E2</b>	does the task management system utilize resources efficiently?
<b>E3</b>	Does the task management software adhere to the existing efficiently standards?
	<b>Maintainability</b>
<b>M1</b>	Do diagnose faults or identification a part to be modified within the task management system, require a minimal effort?
<b>M2</b>	Can the task management system be modified easily?
<b>M3</b>	Can the task management system continue functioning after the change?
<b>M4</b>	Can the modified task management system be easily validated?
	<b>Portability</b>
<b>P1</b>	Can the task management system be moved easily to the other environment?
<b>P2</b>	Can the task management software be installed easily?
<b>P3</b>	Does the task management system adhere to the portability standards?
<b>P4</b>	Can the task management system be replaced easily with similar system?

## APPENDIX B

Items	Factors					
	1	2	3	4	5	6
<b>F1</b>	<b>0.930</b>	-0.026	-0.048	0.023	0.030	-0.003
<b>F2</b>	<b>0.914</b>	0.001	0.013	-0.006	0.024	0.028
<b>F3</b>	<b>0.913</b>	0.104	-0.059	-0.004	0.091	0.002
<b>F3</b>	<b>0.806</b>	0.089	0.022	-0.141	0.068	-0.042
<b>F5</b>	<b>0.844</b>	0.044	0.010	0.082	0.046	0.007
<b>R1</b>	0.030	<b>0.908</b>	0.135	0.107	0.052	0.012
<b>R2</b>	0.078	<b>0.841</b>	0.133	0.231	0.045	0.087
<b>R3</b>	0.004	<b>0.875</b>	0.124	0.081	0.015	0.034
<b>R4</b>	-0.001	<b>0.895</b>	0.113	0.165	0.078	0.041
<b>U1</b>	0.069	0.016	<b>0.886</b>	0.057	0.004	0.075
<b>U2</b>	-0.064	0.146	<b>0.645</b>	0.085	0.031	0.108
<b>U3</b>	0.012	0.002	<b>0.859</b>	0.062	0.073	0.217
<b>U4</b>	0.019	0.378	<b>0.733</b>	0.029	0.064	0.006
<b>U5</b>	0.002	0.135	<b>0.858</b>	0.002	-0.057	0.199
<b>E1</b>	-0.010	0.016	0.373	<b>0.796</b>	0.229	0.073
<b>E2</b>	0.018	0.025	0.095	<b>0.855</b>	0.067	0.074
<b>E3</b>	0.008	0.001	0.133	<b>0.840</b>	0.025	0.064
<b>M1</b>	-0.057	0.199	0.079	0.034	<b>0.796</b>	0.074
<b>M2</b>	0.073	0.217	0.055	-0.021	<b>0.855</b>	0.064
<b>M3</b>	0.074	0.007	0.084	0.072	<b>0.840</b>	-0.003
<b>M4</b>	0.064	0.006	0.021	-0.058	<b>0.822</b>	0.028
<b>P1</b>	0.229	0.073	0.017	0.070	0.045	<b>0.872</b>
<b>P2</b>	0.067	0.074	0.007	0.033	0.015	<b>0.834</b>
<b>P3</b>	0.025	0.064	0.006	0.006	0.031	<b>0.908</b>
<b>P4</b>	-0.057	0.199	-0.057	0.199	-0.057	<b>0.919</b>

**IS IT WORTH THE BUZZ? AN EXPLORATION OF THE IMPACT OF NEW  
PRODUCT DEMONSTRATIONS ON CONSUMERS' ONLINE SEARCH AND  
PURCHASE BEHAVIOR**

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**Keywords:** new product demonstration, online brand search, market performance, product development stage

**Description:** The authors investigate how the demonstration of new products may impact consumers' online search for the brand, and subsequently a firm's market performance.

**EXTENDED ABSTRACT**

**Research Questions**

Firms are constantly involved in developing new products and selectively reveal information about those activities to influence different stakeholders. We define the disclosure of information about a new product at any stage of development and commercialization as a new product demonstration. While new product demonstrations, which are frequently referred to as new product preannouncements and announcements in the literature, have received fast attention from scholars especially regarding their impact on investors and competitors less attention has been made to the impact of such efforts on consumers' behavior. In the current study we aim to

answer the following three research questions: (1) What is the relationship between new product demonstrations and consumers' online search for brands? (2) Does online brand search mediate the effect of new product demonstrations on market performance? (3) How does the relationship differ for new products at different development stages? Addressing these questions will allow us to explore a measure for consumers' behavioral responses to a firm's communication efforts to measure the effectiveness of those efforts.

## **Method and Data**

We test our hypotheses in an empirical setting using data in the automobile industry and focus on new product demonstrations in international auto trade shows. We use the total number of new products a brand demonstrates at trade shows in a month to measure new product demonstrations. Our unbalanced, pooled, time-series dataset comprises 3447 observations of 22 brands, which account for about 85% of the U.S. motor vehicle market. We collected online search data for brands from the Google Trends database. The amount of "Googling" for a brand, demonstrated by Google search volume index in near real-time. Using the brand as the unit of analysis and the brand name as the search term in Google Trends, we collected the cumulative monthly search volume indices.

Further, we use the change rate of a brand's market share as the measure of the boost in market performance through the online brand search lift due to a new product demonstration. Finally, to test the moderation effect of the development stage, we categorize new products into debuts (demonstrated for the first time and not commercialized yet), concepts (demonstrated before but not commercialized yet), and market-ready products (demonstrated before and ready for purchase by consumers now).

## **Summary of Findings**

Our results reveal that while new product demonstrations, on average, improve market performance through a boost in consumers' online brand search, this relationship is stronger for new products at early and advanced stages of development, compared to the new products at the middle stage of development. Our findings confirm the notions of ELM theory and CLT theory that overall new product demonstrations increase consumers' online brand search volume by activating consumers' elaboration of new product information and linking that information to the brand or by providing higher levels of construal (Chandrasekaran, Srinivasan, and Sihi 2018).

## **Key Contributions**

From a theoretical standpoint, the current paper contributes to the literature focused on the performance outcomes of firm innovations. While little attention is made to how consumers respond to a firm's innovation efforts, while there has been a call for that (Thorbjørnsen, Dahlén, and Lee 2016), we fill this gap by exploring consumers' online search as a form of response to a firm's release of information about new products. In this regard, we contribute to academia by finding an important link between a firm's offline marketing efforts and consumers' online behavior. In addition, we use Google Trends as an important tool to track consumers' online behavior, which only recently has been used in the marketing literature (e.g., Du, Xu, and Wilbur 2019).

From a managerial standpoint, our findings underscore the importance of consumers' online search as an outcome of a new product demonstration, which may significantly impact a firm's market performance. We show that managers should consider consumers as an important target of their new product demonstrations and administer the timing and specificity of

information release to maximize benefits. Our findings show that consumers react differently to the demonstration of new products at early, middle, or advanced stages of development.

*References are available on request.*



## **MICROFOUNDATIONS OF COOPETITION: THE ROLE OF THE INDIVIDUAL**

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**Keywords:** Coopetition, Individuallevel, Character traits, Microfoundations

**Description:** In this study, we analyze the influence of the individual on the emergence and balance of individuallevel coopetition in an academic context.

### **EXTENDED ABSTRACT**

#### **Research Question**

Scholars emphasize the importance of analyzing the underlying mechanisms of coopetition, so-called microfoundations, to gain a deeper understanding of the antecedents of radical innovation. Even though there has been research conducted in the field of coopetition between organizations (inter-firm coopetition), research on coopetition between individuals remains scarce. However, individual coopetition has a high potential of being able to explain some relationships found on inter-firm coopetition that cannot be fully explained yet. In the first part of our study, we answer the question what the origins of coopetition are, meaning if an individual can be the cause and which character traits lead to a well-balanced coopetition.

In this study, we therefore analyze

a) the role of the individual in the emergence and balance of individual coopetition with a focus on narcissism (paradox theory) compared to Big Five Traits and

b) coopetition in a different context for which we have selected the context of universities as they are the major institution with sole focus on radical innovation.

### **Method and Data**

In order to answer our two research questions, we use primary data what we collected via online surveys. Our survey is distributed at universities within the TU9 alliance, a legitimate subgroup of German universities with a focus on science and engineering. The survey was sent to a total sample of 11.652 relevant individuals across different scientific disciplines who are partly assigned to management tasks. Beforehand, interviews with experts in this field were conducted in order to increase the comprehension of the survey and the validity of results. Furthermore, a pre-study to a smaller sample was sent to ensure the comprehension of the survey.

### **Summary of Findings**

According to our preliminary results, it can be shown that narcissism is a character trait that has a positive relationship with the emergence of a competitive-balanced coopetition. This is a bit surprising because of our assumption stating that narcissists highly depend on external confirmative surroundings. Furthermore, it can be said that a high need for achievement also plays a highly important role in the emergence of coopetition on the individual level. Both relationships can be moderated by perceived social support: A narcissist will create a coocompetitive relationship that is well-balanced if there is a high perceived social support. A similar relationship could not be found for individuals that have a high need for achievement. For managers this implies that a coocompetitive relationship created by narcissists can be controlled through social support while individuals with a high need for achievement cannot be easily influenced from externals.

### **Statement of Key Contributions**

With our research we want to contribute to theory and practice in several ways: First, we extend research conducted on the individual level of coopetition. Even though there is an increasing number of cooperative and paradoxical situations due to a higher demand for increasing the speed of innovation.

Second, we shift coopetition to the entrepreneurial context by using a data set collected from entrepreneurs in the academic environment. This will provide new insights in how far entrepreneurs can influence and manage paradoxical situations successfully.

Further, we introduce the paradox theory in the research context of coopetition. So far, coopetition has been mainly analyzed based on three main theories, namely network theory, resource-based view and game theory. By drawing upon the topic of coopetition using the paradox theory, we can provide new insights by emphasizing the individual in a paradoxical situation.

From a practitioner's perspective, this study provides insights regarding how to deal with paradoxical situations that entrepreneurs increasingly have to face in today's complex work environment.

## **MOTIVATION IS EVERYTHING – THE INFLUENCE OF REWARDS ON THE BALANCE OF INDIVIDUAL COOPETITION**

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**Keywords:** Coopetition, Individuallevel, Rewards, Microfoundations

**Description:** In this study, we analyze the influence of rewards on the emergence and balance of individuallevel coopetition in an academic context.

### **EXTENDED ABSTRACT**

#### **Research Question**

Because of the high potential of coopetition on radical innovation, it is crucial to fully understand the microfoundations and individual interactions in a team or academic chair that lead to successful and well-balanced coopetition and eventually innovation. In the first part of our study, we focus on vertical individual interactions, meaning interactions across managerial hierarchies as potential trigger to influence the balance of coopetition, we analyze the role of rewards and recognition between employer and employee and in how far a certain reward system leads to a certain behavior that triggers a well-balanced coopetition. Rewards can be an important tool to trigger a certain behavior and might be a potential powerful tool to stir coopetition. In the second part of our study, we analyze horizontal individual interactions, meaning the interactions of individuals in their team. We focus on the influence of social interaction ties because it could be shown that high social interaction can have a significant influence on an individual’s behavior.

Consequently, our formulated research questions are:

- 1) What is the role of rewards in the emergence of a well-balanced cooperation?
- 2) In how far can social interaction ties moderate this relationship between rewards and a well-balanced cooperation?

### **Method and Data**

In order to answer our two research questions, we use primary data what we collected via online surveys. Our survey is distributed at universities within the TU9 alliance, a legitimate subgroup of German universities with a focus on science and engineering. The survey was sent to a total sample of 11.652 relevant individuals across different scientific disciplines who are partly assigned to management tasks. Beforehand, interviews with experts in this field were conducted in order to increase the comprehension of the survey and the validity of results. Furthermore, a pre-study to a smaller sample was sent to ensure the comprehension of the survey.

### **Summary of Findings**

According to our preliminary results, a curvilinear relationship between the quantity of rewards given by a superior and the balance of cooperation can be found. No rewards lead to competitive-balanced cooperation while daily/regular rewards rather lead to cooperative-balanced cooperation. A similar relationship could be found for recognition from a superior, meaning the quality of rewards compared to the quantity of rewards stated above.

Furthermore, it can be found that social interaction ties weaken the above-mentioned relationships. The more an individual feels acknowledged by peers, the more the competitive relationship shifts towards cooperate-balanced cooperation.

### **Statement of Key Contributions**

With our research we want to contribute to theory and practice in several ways: First, we extend research conducted on the individual level of cooperation. Even though there is an increasing

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number of cooperative and paradoxical situations due to a higher demand for increasing the speed of innovation.

Second, we shift cooperation to the entrepreneurial context by using a data set collected from entrepreneurs in the academic environment. This will provide new insights in how far entrepreneurs can influence and manage paradoxical situations successfully.

Further, we introduce the paradox theory in the research context of cooperation. So far, cooperation has been mainly analyzed based on three main theories, namely network theory, resource-based view and game theory. By drawing upon the topic of cooperation using the paradox theory, we can provide new insights by emphasizing the individual in a paradoxical situation.

From a practitioner's perspective, this study provides insights regarding how to deal with paradoxical situations that entrepreneurs increasingly have to face in today's complex work environment.

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**Relative Strategic Emphasis on Value Appropriation: Its Role in New Product  
Development Process**

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**Keywords:** New product development, strategic emphasis, marketing strategy

**Description:** The paper lies at the intersection of the literature on the new product development process (e.g., Montoya Weiss and Calantone 1994; Pentina and Strutton 2007; Evanschitzky et al. 2012) and on firm's strategic emphasis on value appropriation (e.g., Mizik and Jacobson 2003; Frennea, Han, and Mittal 2019). It presents an empirical examination of the role of firms' strategic emphasis on value appropriation relative to value creation in calibrating their new product development process.

**EXTENDED ABSTRACT**

**Research Question:**

Does firm's strategic emphasis on value appropriation relative to value creation plays a role in determining the success of firm's new product development process?

**Method and Data:**

The sample used in this study comprises 956 new products developed and launched by seventeen largest pharmaceutical firms (listed in United States based stock exchanges) during the period 2011 to 2016. The data on the various key constructs related to firms' new product

development process such as market characteristics, organizational commitment, and product advantage were collected using a survey from the senior level product managers of the participating pharmaceutical firms. The financial variables of the firms used for operationalizing the strategic emphasis construct were obtained from Compustat Capital IQ database. The assessment of the measurement model and the testing of hypotheses using path modeling were undertaken using Partial Least Squares based Structural Equation Modeling (PLS-SEM).

**Summary of Findings:**

The key finding from this study is that the firm's relative strategic emphasis on value appropriation calibrates its allocation of organizational commitment to the new product development projects in response to the characteristics of the target market (potential and competitive intensity). Specifically, we find that higher emphasis on value appropriation attenuates the negative impact of decrease in target market's competitive intensity on organizational commitment allocated to the new product development process. As such, for a firm with a higher emphasis on value appropriation, its leadership recognizes the potential to appropriate more value from the target market because of low competition and hence allocates higher organizational commitment to the new product development process. Further, strategic emphasis on value appropriation strengthens the positive impact of target market's potential on organizational commitment allocated to the new product development process. As such, for firm's with relative strategic emphasis on value appropriation, its leadership allocates even more organizational commitment to the new product development process. Overall, such optimally allocated organizational commitment leads to development of new products that are equipped with advantageous characteristics over competitors' products, a characteristic that has been



shown to be a strong predictor of the success of new products in the product market (Evanschitzky et al. 2012).

**Statement of Key Contribution:**

Prior literature has documented the positive effects of strategic emphasis on value appropriation relative to value creation on firm performance. However, the literature on the mechanism(s) through which such effects manifest is relatively underdeveloped. As such, we contributing to this stream of literature by proposing and testing a conceptual model for the important calibrating role of relative strategic emphasis on value appropriation in the context of the new product development process of firms. We find that strategic emphasis on value appropriation allows firms to optimally allocate organizational commitment to new product development projects in response to the target market's characteristics (potential and competitive intensity), leading to higher likelihood of advantage possessed by the new product in the product market. In doing so, this study attempts to identify an important and previously unexplored role through which strategic emphasis on value appropriation relative to value creation contributes to improved firm performance.

**ROLE OF TRANSFORMATION EXPECTATIONS, PERCEIVED CONTROL AND  
DESIRE FOR CONTROL ON ADOPTION OF AUTONOMOUS INTELLIGENT  
PRODUCTS**

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**Keywords:** Autonomous Product, Product Adoption, Artificial Intelligence, New Product  
Development, Smart Products.

**Description:** The aim of this research paper is to extend our understanding of the underlying  
mechanisms and consumers’ trade-offs in adoption of autonomous products.

## EXTENDED ABSTRACT

### **Research Question**

In recent years, with advances in artificial intelligence, a new class of high-intelligence products that perform autonomously have been introduced to the market. Despite their benefits, the rate of adoption of these autonomous products is very low. It is not clear what is keeping consumers from adopting autonomous products. Our research focuses on answering this question by considering the internal and external factors and trade-offs that consumers make in adoption of autonomous intelligent products. We suggest that consumers' adoption of autonomous intelligent products is dependent on the degree of product autonomy, consumers' transformation expectations, perceptions of control over the product, and consumers' desire for control.

### **Method and Data**

We test our hypotheses in a series of five studies. Study 1 is a scenario-based between-subjects experiment (N= 119) that tests the main effect of product autonomy on intentions to purchase autonomous products. In study 2 (N= 277), we test the mediating effect of transformation expectations on purchase intentions using online samples. In study 3 (N= 149), we test the mediating effect of perceptions of control on the relationship between product autonomy and purchase intentions using a different product than studies 1 and 2. In study 4 (N= 285), we test the effect of consumer trade-offs using a parallel mediation model. In study 5, we test the moderating effect of consumers' desire for control on intentions to purchase autonomous products.

### **Summary of Findings**

Overall, the results of our studies are in line with our expectations. The results of our studies show that product autonomy positively affects consumers' intention to purchase autonomous intelligent products. Product autonomy increases consumers' transformation expectations and positively influences purchase intentions. However, consumers trade off their control in order to reap the transformations and benefits of these products. The results of study three demonstrate that product autonomy negatively affects consumers' perceptions of control which decreases purchase intentions. However, as tested in study four, transformation expectations can overpower the negative effects of perceptions of control and positively influence purchase intentions. Lastly, consumers' desire for control impacts perceptions of control and purchase intentions. Overall, autonomous products provide a multitude of benefits and life transformations to consumers which can lead to adoption and purchase of autonomous products but consumers' tendency to desire control and their perceptions of control over the product are two barriers in the adoption of autonomous products.

### **Key Contributions**

The contributions of our paper are threefold. First, extant research on design, development, adoption, sale, and usage of autonomous products is scant. Our paper is among the first that empirically examines both internal and external factors that influence adoption of autonomous products. Particularly, we find that although product autonomy has a positive relationship with purchase intentions, consumers make important trade-offs in this process. Consumers have to relinquish their control to the autonomous product in order to enjoy their transformational effects. We show that the transformation expectations are a stronger driver of adoption of autonomous

products than consumers' perceptions of control. This suggests that the firms' communication with potential customers should evoke transformation expectations among consumers by communicating how the product will transform their lives. Therefore, the second contribution of the paper is to guide the product manufacturers on what to communicate with their potential customers. Finally, results from the moderating test of desired control illustrates how desire for control may become a hinderance for autonomous product adoption. Therefore, the third contribution of the paper is to illustrate the important role of consumer characteristics such as the desire for control on the adoption of autonomous intelligent products.

*References are available upon request.*

# **Digital and Social Media Marketing**

**#AD, #SPONSORED: THE ROLE OF DISCLOSURE AND PARTNERSHIP FIT ON AUTHENTICITY AND ATTITUDE TOWARD THE INFLUENCER.**

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**Key Words:** Authenticity, Sponsorship Disclosure, Social Media, Paid Partnerships

**Description:** This research considers (1) the influencer's fit with the brand they feature in a particular post and (2) whether they disclose their relationship with the featured brand.

**EXTENDED ABSTRACT**

**Research Question**

Presently, the marketing literature has not at all adequately recognized influencer marketing's vast presence. Influencer marketing tactics, social media influencers, SMI-brand partnerships, SMI-brand campaigns, and strategies for such partnerships/campaigns are areas ripe with research opportunity. Only very recently has the marketing literature even acknowledged influencer marketing and social media influencers (Woods 2016; Godey et al. 2016; Lim et al. 2017; Audrezet, de Kerviler and Moulard 2018; Lou and Yuan 2019). That said, the gaps in the literature extend well beyond the scope of this manuscript. This manuscript focuses on consumer perceptions of social media influencers, more specifically, consumer perceptions of social media influencers' human-brand authenticity. Two distinct types of authenticity—passionate authenticity and transparent authenticity—are focal constructs throughout this manuscript.

Additionally, this manuscript anticipates unique relationships that exist between each type of authenticity and social media influencers' mandated obligation to disclose commercially driven brand promotions throughout self-created and self-published social media content. In addition, this manuscript attempts to explain how the SMI may be perceived as vulnerable when

partnering with brands whose product or service represents a poor fit with the influencer's human brand.

### **Method and Data:**

**Future Data Collection:** Qualtrics will obtain the panel via Lucid (Lucid 2019), who purportedly provided the opportunity to participate to those with public profile information indicative of alignment with the researcher's demographic-based sample restraints (e.g., age, gender, and country of residence). Additionally, Qualtrics will screen respondents according to daily Instagram use.

**Procedure:** We plan to perform an online experiment that incorporates Instagram as the choice platform for the experimental scenarios. We created a pseudo-social media influencer presented as Megan Marie, a fashion blogger who uses Instagram to preview her blog posts and share mutually appreciated content (e.g., details regarding the upcoming, annual sale at Nordstrom) with her followers. Throughout the survey, respondents view content from Megan Marie Morgan's Instagram account. Respondents will be under the impression that they were casting votes, or ratings, to aid in the determination of the SMI's future Instagram content. The profile and bio will remain the same throughout the main study.

**Analysis:** The hypothesized conceptual model will be evaluated via structural equation modeling (SEM) techniques with IBM, AMOS statistical software. SEM was deemed best equipped for evaluating the proposed conceptual model (and the relative hypotheses) for many reasons.

### **Summary of Findings:**

Marketers' use of social media influencers (SMIs) to promote products, known as "influencer marketing," is a widely employed and effective strategic tool (Linqia 2018). The newfound popularity of influencer marketing is likely due to the fact that consumers perceive SMIs as highly authentic. Prior research finds that SMIs attempt to maintain two types of authenticity when working with brands: passionate and transparent (Audrezet et al. 2018).

The research herein proposes two factors that may impact these two authenticity types, which in turn are proposed to affect attitude to both the influencer and the brand he/she features in his/her post. Specifically, this research considers (1) the influencer's fit with the brand they feature in a particular post and (2) whether they disclose their relationship with the featured brand. SMIs who explicitly disclose are presumably perceived as possessing high transparent authenticity; however, explicit disclosures in which the brand sponsorship makes the SMI seem vulnerable, may display a sense of "realness" to followers.

### **Statement of Key Contributions:**

1. We applied recent authenticity literature regarding passionate and transparent authenticity to the context of social media influencers and the disclosure literature.



2. We addressed the counterintuitive finding that perceived transparent authenticity would be lower among those influencers who disclosed a product that has poor fit with their human brand by applying the concept of processing fluency.
3. We support the argument that consumers treat social media influencer paid posts like traditional advertising when the brand fit is poor, adding the importance of maintaining the human-brand-fit connection if passionate and transparent authenticity is to be maintained.

**References are available upon request.**

## **ANSWERING THE BILLION DOLLAR QUESTION, WAS THIS REVIEW HELPFUL TO YOU?**

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**Keywords:** Product review helpfulness, Negativity effect, Star ratings, Use of product image.

**Description:** This paper explores what makes a product review helpful with a focus on the boundary conditions of star rating in terms of review communication strategy, image use and reviewer reputation

### **EXTENDED ABSTRACT**

#### **Research Question**

Product reviews are valuable not only to companies, but also to consumers as an essential source of information in their decision-making process. Yet, with the overwhelming number of reviews that are available to consumers not all product reviews have the same value. Hence, it is important to understand which reviews have a stronger influence on consumers. By looking into what makes a product review helpful, we will be able to gain insight into what makes a product review valuable. Previous research has found that negativity effect exists in product reviews where consumers favor negative reviews over positive reviews. Limited research has been conducted to the boundary condition of the negativity effect. Therefore, this paper aims

to explore the boundary conditions of valence of product reviews (star rating) in terms of review content and reviewer reputation.

### **Method And Data**

For this paper, we collected the 76,286 product reviews for smart watches from Amazon. For each product review the star rating, title, review texts, number of images, reviewer reputation, and the date of the product review were collected. We applied text-mining using Linguistic Inquiry and Word Count Dictionary to measure the communication strategy used in the product review text. We build a negative binomial model controlled by the log form of the number of days passed since the review was written. Three-star product reviews are chosen as the reference point. We build four groups of models depending on the minimum word limit of more than 0 words, five words, 10 words, and 20 words. For each group, three models were run to test the control variables, the main effect with control variables, and the interaction between review content and reviewer reputation with the star rating.

### **Summary of Findings**

Consumers find extreme reviews (one-, two-, four- and five-star ratings) to be more helpful than moderate reviews (three-star rating). In addition, comparing the two extremes, consumers find negative reviews to be more helpful than positive product review. This shows that the negativity effect is present in product reviews. Regarding the review content, communication strategies of texts (e.g., analyticity, clout and authenticity) and the use of image has a positive effect of product review helpfulness. Reviewer reputation positively affect the helpfulness. While the effect of analyticity is significantly increased for negative reviews, the effects of clout and authenticity tend to be increased for positive reviews (especially, four-star ratings). While use of product image is positive and significant, the positive effect of image is not different depending on levels of star ratings. Reviewer reputation mitigates the negativity effect

of product reviews.

### **Statement of Key Contributions**

This paper expands on the previous research into the boundary conditions of negativity effect on product reviews. A comprehensive take on product reviews is presented. For the content of the product review, we apply text-analysis to measure the communication strategy to gain a deeper understanding of the actual content of the text. In addition, with the change in communication dynamic, this paper extends into measuring how the use of image may influence helpfulness. Using image as a boundary condition shows how consumers are highly reliant visual cues regardless of the valence of the product review. Further, by looking into reviewer reputation, this paper considers the unique anonymity of product reviews. Unlike traditional WOM, consumers do not have personal relations to the reviewer nor much information about the reviewer. Hence, this paper shows how the reputation of a reviewer may increase the perceived helpfulness. Moreover, this paper shows that consumers' varying needs of information based on the valence of the product review. These findings will be applicable for marketers to manage their brand or product perception in the online context and for website operators to adjust their website accordingly to aid consumers in their decision-making process.

## **COMPETITION VERSUS COLLABORATION IN ONLINE COMMUNITIES OF WEARABLE TECHNOLOGIES**

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**Keywords:** Online communities; Competition; Collaboration; Wearable technologies

**Description:** This paper investigates the relationship between competition versus collaboration, self-esteem, and willingness to engage in healthy behavior in online communities around wearable communities.

### **EXTENDED ABSTRACT**

#### **Research Questions**

RQ1: How does competition versus collaboration in online wearable communities affect willingness to engage in health-related behavior?

RQ2: How does self-esteem affect the relationship between competition(versus collaboration) and willingness to engage in health-related behavior?

H1: Competition, compared to collaboration, in online wearable communities leads to higher willingness to engage in health-related behavior.

H2: Positive effect of competition over collaboration on health-related behavior is decreases with the increased self-esteem.

#### **Method and Data**

In Study 1, we conducted ethnographic content analysis. The data set consisted of user generated content gathered from a Fitbit community on Facebook (10,000 unique content, 800 members, three one-week periods) as well as verbatim transcriptions of four in-depth interviews with the

community members. NodeXL software was used to import the data from Facebook, and NVivo 10.0 was utilized for content analysis.

In Study 2, we tested H1 and H2. Seventy-one mTurk employees (average age= 32; 67% males) participated in a 2 condition (collaboration vs. competition) experiment.

## **Summary of Findings**

### *Study 1*

Results revealed that social media communities compensate for the lack of connectedness, and serve as a companion to the individuals during fitness activity. Additionally, engagement with the fitness community results in a friendly competition across the members of the community. Analysis of the communication patterns showed that competing with others in the social network results in an increased level of work out.

### *Study 2*

Analysis revealed that participants were more likely to exercise ( $M = 5.88$ ) and motivate others in the competition ( $M = 5.28$ ), compared to the collaboration, ( $M_{\text{exercise}} = 5.33$ ;  $M_{\text{motivate}} = 4.56$ ) condition ( $t_{\text{exercise}(69)} = -1.77$ ;  $p = .08$ ;  $t_{\text{motivate}(69)} = -2.1$ ;  $p < .05$ ). Although the effect of collaboration vs. competition on exercise likelihood was marginally significant, Hayes' Process Macro (Model 1) revealed a significant interaction effect of self-esteem and collaboration (coded as 0) vs. competition (coded as 1) on exercise likelihood ( $\beta = -.61$ ;  $t(67) = -2.46$ ,  $p < .05$ ) with CI that did not include 0 (-1.1, -.12). The exercise likelihood was significantly higher in the competition, than collaboration condition for lower self-esteem consumers. However, for average and higher self-esteem individuals, this differential effect was not significant. Moreover, self-

esteem did not have a significant moderating influence on the effect of collaboration vs. competition on likelihood to motivate others to exercise.

### **Statement of Key Contributions**

This research contributes to the existing research on online communities (Kozinets et al. 2010; Schau, Muñoz Jr, and Arnould 2009), with health-focus (Song et al.,2015), and the influence of competition versus collaboration in fitness (Chen and Pu 2014) by providing insights about competitive versus collaborative tendencies in online fitness communities that result in increased health related outcomes such as steps taken per day. This research shows that when the outcome involves others such as motivating them to exercise, consumers are more driven by a competitive than a collaborative online community independent of their self-esteem. However, when the outcome is related to the self, such as likelihood to exercise, low self-esteem consumers are more driven by a competitive than a collaborative consumer community. This research provides insights for multiple non-academic stakeholders such as wearable companies (e.g., Fitbit, Apple watch) and healthcare providers in their efforts to motivate individuals to have a healthy life. In order to maximize their utilization of online communities, wearable companies and healthcare providers could benefit from our contributions.

*References are available upon request.*

# Effectiveness of Social Media Platform: A perspective of Customer Purchase Intention through Social Networking in the Pakistani context

## ***Abstract:***

The purpose of the study is to explore the association among the social media practices which effect the purchase intention of the consumers in the Pakistani context. The study is helpful for all the practioniers and profit earning organizations as it gives a deep overview of the social media and their practices applied nowadays. The study also examines the mediating role of brand loyalty in these relationships. Paper, as well as electronic questionnaires, were used to collect data from 1000 consumers who use social channels to make a purchase .Structural equation modeling technique (SEM) was applied to test the hypothesized model. The results reflects that all the independent variables have a significant impact on purchase intention (dependent variable) keeping brand loyalty as the mediating variable. The results of the research are beneficial for all those firms and marketers who are targeting the social networking platforms to reach out to their target customers. This study explores the factors of brand loyalty in relation to social media in a unique way, but having few limitations to research such as the use of convenience sampling .Future directions can help the marketers to aim their consumers very precisely implying these social media studies.

**Keywords:** *Social Media, Brand Loyalty, Social Networking, Community Engagements, Impression Management, Brand Use, Purchase intention.*

## ***1. INTRODUCTION***

Social media is considered as a substantial mean which not only support the consumers but the firms also to have a good mean of interaction and developing everlasting bond with the consumers. Social media is defined as the online platform facilitating the users to interact, collaborate and even share information among each other (Grantham-McGregor, 2007). The reputation of brand is directly proportional to its social media influence nowadays (Bae et al., 2010).Social networking



means that individuals having similar interests and characteristics come together at one single platform or source or any channel sharing their ideas ,reviews and interacting with people of same nature. Socializing is done through various means such as sending messages, sharing photos, blogging, web links, websites and discussion channels (Harris and Parker, 2009);and for this interaction there are various applications present like Facebook, WhatsApp , Instagram, Twitter etc.

The debate over the brand-building activities of any company by utilizing digital platforms which can lead to consumer purchase intentions is an ongoing one. Some academics and researchers are of this viewpoint that only social media gives a unique platform to businesses and brands helping their consumers to develop long term bond with their brands while others doesn't agree with this theory(Harris and Parker, 2009).Taking this perspective forward, this research caters to variables namely social media, community engagement, impression management and brand usage to predict purchase intentions through customer loyalty status with the mediating effect of brand loyalty. Past brand loyalty studies just explored the customer centered model explaining the bond between the focal customer and their desired brand, any company or any product using social channels (Schau et al., 2009).However, this research will study the effects of predicating antecedents like social media, community engagement, and impression management, brand use to enhance long term customer relationships through brand loyalty which fully mediates value creation practices on purchase intention of the consumers.

Social media growth enables customers to modify themselves from passive receivers to active cocreators of brand messages in response to marketers' persuasion tactics of using social media platforms (Ramiz et al., 2014). Firms and Business have started noticing the importance of social media marketing channels and results explored that 47 percent of companies use social media to connect to their customers (Cvijikj et al., 2013). As Marketing Insider Group (2017) reported, that brand community has shown significant business benefits when the system is shifted from conventional to online having benefits such as : 1) a decrease in customer support costs; 2) enhanced brand exposure and credibility; 3) help to get knowledge of new products or service; 4) showcasing products before their official presentation.

Communities developed online and interacting via social channels provide a platform to users to come together at one unified point and have a discussion about various brands, items or products.

Nowadays various firms and businesses realizing the potential of social media have started supporting the developed communities and social platforms. Such channels can help in better development of their respective brands financially, ethically and emotionally (Most et al., 2001). Such communities develop a bond between the firm and their respective customers (Kim et al., 2007). Through impression management, the users come across the latest news, brand proficiency, standards of various brands matching their levels and likeness.

## ***2. LITERATURE REVIEW***

### **2.1 SOCIAL NETWORKING AND PURCHASE INTENTION**

Social networking provide a chance for marketers to gather the information from the customer to have a record maintained (Hensel et al. 2010). A general rule explains that with the passage of time, social networking users become more inclined in sharing their private information. Data mining organizations are gathering data from individual posts and applications. An organization called "Colligent" gathers such free data, mines it and offers factual information to record mark organizations (Hall et al., 2009). Peng et al. (2008) suggest that social network marketing can be advantageous to the business in many ways. Schlaile et al. (2018) suggests that focusing the final outcome being advantageous using social media marketing, firms take into account the steps starting from their initial commercials broadcasting online, developing clear defined goals and in the last collecting the results to be beneficial or not.

Social networking is powerful source because of its two-way correspondence (Nisar et al., 2016). Ellis-Chadwick et al. (2012) propose numerous organizations take an initiative venture enabling online networking members to communicate and many have discovered achievement in utilizing the insight of the group to answer their business issues. Indian et al. (2014) suggested the two stages to gain customer confidence is first to give honor to the customer and second to make marketing programs that upgrade clients.

Social media networking in a way is one of the most effective utilization of marketing expenses (Krasnova et al., 2010; Nisar et al., 2016), which is essential for even Small and Medium Enterprises (SMEs) as they have to make do with smaller spending plans than the bigger

organizations. Firms utilize social media networking to discover new consumer as well as to keep up and hold their current consumer (Kim et al., 2018).

*H1: There exists a positive relationship between social networking practices and purchase intention.*

## **2.2 COMMUNITY ENGAGEMENT AND PURCHASE INTENTION**

Community Engagement proposes that individuals are keen on helping different individuals, taking part in joint exercises and acting in cooperative ways until the group underwrites the proposal and when that upgrade eventually culminates into practice, the group's esteem is aggrandized, not only for themselves, but also for other groups and subsequently, the brand itself. Social Interaction/User-Participation is alluded to as "Partaking," one takes part when one has added something, either straightforwardly or in a roundabout way, to the group (Shang et al., 2006). Thompson et al. (2008) inspected the impacts of brand conscious people upon those who are not brand conscious.

Muniz et al. (2001) find that long-haul individuals have a tendency to appreciate higher status inside the Brand Community and that their participation is viewed as more honest. Hence, longerterm participation in a Brand Community ought to lead to a more grounded social recognizable proof with that Brand Community. Furthermore, long-haul participation lead to learning purchasers' assessments of new offerings, aggressive marketing and promotion activities, et cetera; and to augment chances to draw in and work together with very faithful clients (O. Hern, 2010). Within consumer relationship toward brand and brand networking, the brand loyalty acts a very crucial and vibrant role (Ismail et al., 2017) .

Buyer's impression of the brand community's outward requests on a man to connect and coordinate inside the group. These requests are gone to by some of the time plain however regularly verifiable pressure to adjust to the Community's standards, ceremonies, and goals (Algesheimer, et al., 2005).

Brand Communities, however, have not possessed the capacity to manage the entire hover, from starting associations with clients to the change of promoting efficiency. Rather, the exploration center has been on assorted ranges, for example, the impact of demeanors toward brand

communities on brand (Solem, 2016; Sasmita, 2015). Brand community duty and breaks down the impact of trust and influence toward a brand community. The significant connections amongst Trust and duty and amongst influence and responsibility have been identified in past brand administration contemplates (Stokburger-Sauer, 2010; Goh, 2013) **Hence the proposed hypothesis is:**

- *H2: There exists a positive relationship between community engagement practices and purchase intention*

### **2.3 IMPRESSION MANAGEMENT AND PURCHASE INTENTION**

Customers involve themselves in such selfless activities or to gain higher status within their communities/society which results in providing an esteemed impression. People don't bother about the motivation behind, but just observe the impression to develop their status within the society (Laroche et al., 2012). From a behavioral viewpoint, the practice of engaging consumers can be viewed as a consumer's behavioral manifestation toward a company's brand (Gignac et al., 2016). Secondly, consumer engagement can be hypothesized as a psychological state that occurs in combination with a customer's interactive experience with a focal (Core) brand, accompanied with consumer attitude formation as a multidimensional construct comprised of emotional, cognitive and behavioral dimensions (Zebrowitz, et al., 2015).

Impression management plays a vital role in organizational research that is inclusive of political accomplishment (Riegelsberger et al., 2007). Impression management helps to achieve beneficial results while making hiring decisions, performance evaluations and career development (Yen et al., 2013). Staff workers hope to be treated well by their upper management; for this purpose, impression management performs a vital part in managing the controller's impressions to increase staff workers' productivity. When supervisors use impression management the staff workers feel the supervisors are in their favor (Proudfoot et al., 2018).

Different theories proved that use of impression management helps to achieve great success in career (Fuller et al., 2007) and builds good relations between staff workers and supervisors (Harris et al., 2007). Impression management is a theory to be paid attention to. It has the authority and impact to create a promising public recommendation of a noteworthy person; it can harm an

individual's social status, and, it can reestablish a harmed guise. Also, impression management has the aptitude to regulate a person's status in the social order. A relative position of a person can also effect impression management (Merkl-Davies et al., 2011).

Hence the proposed hypothesis is:

- *H3: There exists a positive relationship between impression management practices and purchase intention*

#### **2.4 BRAND USAGE AND PURCHASE INTENTION**

Brand use practices are the consumer's ability to help each other with novel and better means to utilize any main brand. These comprise essentially about the valid knowledge/know how by one user to another focusing the usability of brands as per the basic needs. These practices can also be related to the feelings of one person in an attempt to help or assist another who is new into the community. Brands use practices include developing, nurturing and custom tailoring the brand as per their user demand. Such practices results in best use and liking towards the brand (Schau et al., 2009).

Social media can enhance brand usage practices by keeping brand dedication and increasing followers by connecting and sharing brand information and knowledge. Along with all these value addition practices, it is assumed that brand community pointers can openly impact these practices (Laroche, 2012). Ahmad et al. (2011) worked on determining the influence of brand positioning on consumer purchase intention among different products using eight variables; brand credibility (signaling variable), brand image (signaling variable), brand prestige (signaling variable), consumer purchase intention, perceived value, perceived quality, perceived risk and product involvement on consumer purchase intention. Results revealed that all brand signaling variables impact positively on consumer purchase intention through perceived value for money, perceived quality, and information costs saved, and perceived risk. Brand positioning variables have great impact on high involvement product rather low. Marketers and advertisers use this study to outline operational strategies and increase effectiveness.

Thus, the study postulates the following hypothesis:

- *H4: There exists a positive relationship between brand use practices and purchase intention.*

## 2.5 BRAND LOYALTY AND PURCHASE INTENTION

Hidayanti et al., (2018) explained the impacts of brand practice and brand trust to enhance brand loyalty and brand commitment. Brand experience support to brand commitment and brand loyalty. Loyalty is a way through which customers show their contentment towards the enactment of product or facilities given to them (Bloemer et al., 1995). Brand loyalty is also distinguished as “keeping a particular product or service desirable” (Khram, 2011). Loyalty is based on different variables but the most important fact is the practice of use (Edosomwan et al., 2011). Consumer’s check the brand for their satisfaction that inaugurates a good and long relationship with that brand (Woodcock et al., 2011).

Brand loyalty is elemental for every firm to gain competitive advantage in order to attract more customers and gain more profit (Iglesias et al., 2011). Every firm wants to get high customers loyalty towards the brand. However, all brands cannot achieve high customer loyalty. Every company’s marketing plan is designed to focus on growth and preservation of consumer’s brand loyalty, specifically in the marketplaces having tough opposition and high impulsiveness and less item variation (Ismail et al., 2017).

Chaudhuri (2001) had indicated brand loyalty as a constructive and steady frame of mind and characterized it by the client through attitudinal loyalty and behavioral loyalty to the brand. Brand loyalty alludes to the propensity of being reliable to a brand and can be an inclination of customers to purchase a brand as the main decision indicated loyalty to a specific brand.

Hence it is proposed that

*H5: Brand loyalty has mediating effect among independent variables (social networking, community engagement, impression management, brand use) and purchase intention*

## 3. METHODOLOGY

The current study assumed the positivist philosophy as the nature of the research to undergo the factors of purchase intention using social media and branding. This study utilized quantitative (survey-based) methodology being cross sectional in nature. In the present study, target population refers to all those consumers using internet facilities and social media platforms and online networking in Pakistan. Currently, the total population of Pakistan is 200 Million as per *World*

*Meter*. Out of this population 18 percent or precisely 35 million are regular internet users while 31 million or 16 % are the active social media users. 1200 questionnaires were distributed and out of which 1000 came out fully filled and duly acceptable to run the tests with response rate of 83% .In measuring variable Social networking is leading the concept of socializing and interaction and was developed by Hsieh, Chiu, & Chiang(2005). A thirteen item scale from one (strongly disagree) to five (strongly agree) was used which was developed by Hsieh, Chiu, & Chiang(2005).Community Engagement means social interaction and it was measured by 30 items scale from from one (strongly disagree) to five (strongly agree) developed by Algesheimer et al., 2005.Impression management is the practice used by people to give directions to alter their developed image towards any brand by Schau et al. (2009). A fifty item scale from one (strongly disagree) to five (strongly agree) developed by Schau et al. (2009) was used. Brand loyalty is the affirmative approach towards a brand and it was measured by 6 items scale from one one (strongly disagree) to five (strongly agree) developed by Delgado-Ballester, Manuera-Aleman, and Yague-Guillen (2003).Brand usage is the level to calculate the purchase of any brand in priority to alike brands and it was measured by 5 items scale from one (strongly disagree) to five (strongly agree) developed by Schau et al. (2009).Purchase intention is the preference of consumer to buy the product or service and it was measured by it was measured by 9 items scale from one (strongly disagree) to five (strongly agree) developed by Singh et al.,(2012).

#### **4. RESULTS AND ANALYSIS**

Demographic results revealed that 519 are female buyers with majority as compared to 481 male buyers being the minority. Age level of the respondents in between 18 to 23 years are in majority with 658 respondents while rest age groups ranges such as 24 to 29 years are 250 respondents,30 to 34 years are 49 while above 35 age limit are 43 respondents. Similarly for the education bachelor level is in majority with 666 responses, master level is 208 and MPhil level is 84 while PhDs are 42 respondents.

Table 1 explains the relationship among the variables. It explains the variables have significant relationship with each other at the level of 0.01 and 0.05.The lowest correlational was 0.429 in Brand Use with Community Engagement while the highest correlation was 0.638 in between Purchase Intention and Brand Loyalty. Means and Standard Deviation are also mentioned in the

table ranging from 3.49 to 3.89 and 0.391 to 0.541 respectively. Reliability of each variable are also shown in the Table 1 while the overall reliability is 0.885.

	Mean	St. Deviation	1	2	3	4	5	6	Cronbach's Alpha
<b>Social Networking(SN)</b>	3.6610	.39117	1						.616
<b>Community engagement (CE)</b>	3.4907	.41846	.536*	1					.812
<b>Impression management(IM)</b>	3.5684	.45882	.516*	.616*	1				.744
<b>Brand Use(BU)</b>	3.8982	.54123	.474*	.429*	.436*	1			.720
<b>Brand Loyalty (BL)</b>	3.7839	.53520	.496*	.475*	.501*	.579*	1		.685
<b>Purchase Intention(PI)</b>	3.6379	.50490	.432*	.499*	.540*	.488*	.638*	1	.742

Table 2 demonstrated the fitness summary of the model and variables. All the values showing that the constructs are fit for the analysis. The variables have the values above the threshold level donating fitness and validity of the constructs. Standard regression weights also have 0.3 estimate values showing the acceptable range to retain the variables.

Varibales	CMIN/DF	CFI	GFI	RMSEA
<b>Social Networking(SN)</b>	.122	1.00	1.00	.000
<b>Community engagement (CE)</b>	2.565	.981	.989	.040
<b>Impression management(IM)</b>	2.780	.983	.993	.042
<b>Brand Use(BU)</b>	1.00	1.00	1.00	.310
<b>Brand Loyalty (BL)</b>	1.805	.998	.992	.046
<b>Purchase Intention(PI)</b>	2.649	.993	.992	.066



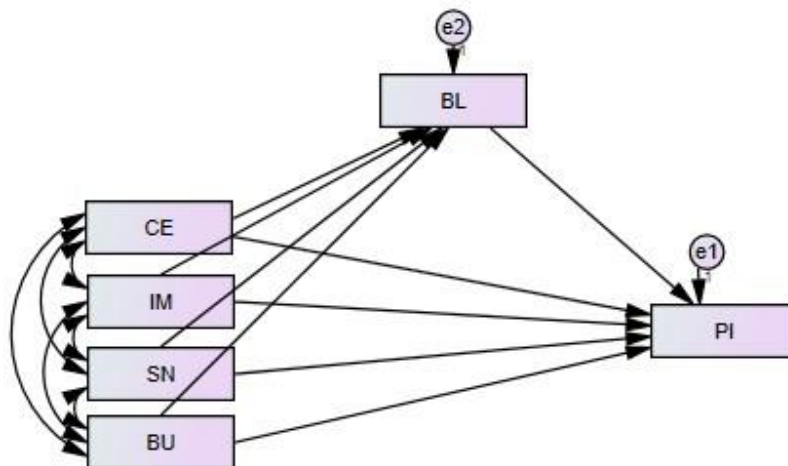
Table 3 shows the P values through which hypotheses are accepted or rejected. According to the results of P values, first relationship of Social Networking (SN) with Purchase Intention (PI) has not been accepted. All others hypothetical relationships have been accepted shown in Table 3

<b>Table 3 Regression weights (Group number 1-Default Model)</b>				
			<b>Estimates</b>	<b>p- value</b>
PI.	<---	SN.	.214	.027
PI.	<---	IM.	.344	***
PI.	<---	CE.	.089	***
PI.	<---	BU.	.297	***

To test the mediation, bootstrapping technique is used. It is also useful to verify both the direct as well as the indirect effects of the model. As mentioned in Table 4 and according to it there are partial mediation present in first, second and fourth path. First path is Community Engagement with Brand Loyalty and Purchase Intention. Second path is Impression Management with Brand Loyalty and Purchase Intention. While the fourth path is Brand Use with Brand Loyalty and Purchase Intention. Third path is showing no mediation among the variables (Social networking with Brand Loyalty and Purchase Intention).

<b>Table 4 Bootstrapping Strategy</b>				
<b>Paths</b>	<b>Standardized total effect</b>	<b>Standardized direct effect</b>	<b>Standardized indirect effect</b>	<b>Results</b>
CE-BL-PI	.157***	.115***	.047***	Partial Mediation
IM-BL-PI	.228***	.184***	.076***	Partial Mediation
SN-BL-PI	.003(ns)	.163***	.067***	No Mediation
BU-BL-PI	.095***	.372***	.153***	Partial Mediation

**Figure : 1 Conceptual model and hypotheses testing.**



### **5. DISCUSSION AND CONCLUSION**

The purpose of the study was to examine the mediating role of Brand Trust between the relationship of Social Networking, Community Engagement, Impression Management, Brand Use and Purchase Intention in the developing world of social media and internet within the Pakistani Context. Social Networking, Community Engagement, Impression Management, Brand Use were the independent variables and Purchase Intention was the dependent variable. Brand Trust was the mediating variable in the study. Five hypotheses were crafted to examine the relationship between the variables. Data was collected from 1200 social media users who use social chains and internet medium to make the purchase out of which 1000 were usable respondents. Majority of the population was female to make online purchase (n=519) which was 52% of the total respondents. Most users were of the age group 18 to 23 years and belonged to the bachelor level of education having 666 responses. Mean value of Brand use was highest (M=3.898, SD=0.541). CFA indicated that the data were collected fit for the hypothesized measurement model along with sufficient factor loadings. In correlational matrix all the variables were positively correlated with one another and fitness summary showed that all the variables were fit for the analysis with standardized regression weights above the threshold level (>0.3).

For the hypothesis testing, the first hypothesis was the relationship of Social Networking and Purchase intention. It showed estimate 0.003 which was insignificant  $P=0.027$  and it showed that there is no positive relationship among Social media and Purchase intention reflecting that with the development of social media the purchase patterns of the consumers doesn't change. Second hypothesis was the positive association between Community Engagement and Purchase Intention which denoted the estimate 0.089 and significant relationship between them. Communities living together and people effect each other a lot while making any purchase. Third hypothesis was the positive association between Impression Management and Purchase Intention which denoted the estimate 0.344 and significant relationship between them. People prefer to purchase while making an impression on other individual about any brand. Furthermore, fourth hypothesis was the positive association between Brand Use and Purchase Intention which denoted the estimate 0.297 and significant relationship between them. In the mediation analysis only Social networking showed no mediation effect among the relationship between Social Networking and Purchase Intention with Brand Trust. Brand Trust has the partial mediating effect in three relationships of Community Engagement, Impression Management and Brand Use.

## ***6. IMPLICATION AND LIMITATION***

This study provides deep understanding for the marketers and practitioners. The world is moving from conventional buying to online modes and socializing. Thus, in today's world of social media and interaction it is vital to pay attention to the social channels and platform while making purchases. Social media practices are crucial in today's world of businesses and it leads the companies to have better knowledge about their customers. The likings and interests of consumers for any brand can be accessed using social media and their channels. In such way , the decision makers in corporate world will get a better picture about the brands to develop the sense of brand trust and long term loyalty relationship among its consumers. People can get better knowledge about the brands and the information available online and have deep understanding about respective desired products instead of the old traditional mall shopping scenario. It not only saves times while doing online purchase for both the customers but also this step is beneficial for the firms to cut down the cost of outlets maintenance and people hiring as selling agents. Shifting your business online can improve the chances of social networking. This can not only help business to business marketing but business to customers will have more improves results.the interaction with

potential buyers of the brands will be more easy and to share the products using social platforms will improve the user flow. People are highly active on these forums, they develop their impression about the product or brand by knowing the views of other fellows who are using these networks. So, by walking on same impressions, they start using the particular product and attempt to purchase online such thing. So, by handling these things efficiently and effectively, their online sale could be increased positively and not only they can raise their sales but also they can sustain it too.

The study also has theoretical contribution as well as the model is novel and significantly contributes in the literature. Theory is also tested in the study which strengthen the generalizability of existing studies. There are very less study in this area specifically in the context of Pakistan so this study create a trend of testing online purchase intentions of customers and try to fill a gap in the literature related to Pakistani context

The limitations of the study are as follows, which can be might fulfilled using the future suggestions by the study. As the data is analyzed in a specific period of time and being cross sectional in nature it can be done to different time scale and patterns. The following study only worked upon analyzing the mediating effect in relation to dependent and independent variables however, in future ,moderating effect can also be implied in this model. Another thing that limits the scope of the study is the population targeting only the people using social channels and medium to make the purchase. It can link with other sectors of economy and different cultural perspectives and different time zones. Moderated mediation can also be checked in some future studies by incorporating different individual traits as moderator in the model.

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**EXPLORING BRAND CO-CREATION IN BRANDED MOBILE APPS****Trang P. Tran, East Carolina University****Qin Sun, California State University, Northridge****Anh Dang, Northern Kentucky University****Contact Information:** For further information, please contact Qin Sun, Ph.D., California State University, Northridge (qin.sun@csun.edu).**Keywords:** Brand co-creation, Branded app personalization, Brand coolness, App stickiness, Purchase Intension**Description:** This study intends to explore the role of brand co-creation in branded mobile apps or branded apps by examining how values of a brand are co-created by branded app personalization as well as some desired behavioral outcomes.**EXTENDED ABSTRACT****Research Question**

Mobile marketing and mobile commerce have received increasing scrutiny among both practitioners and academics as mobile devices especially smartphones become a popular retail channel in the digital world with an average online order value of \$79.43 in the 4<sup>th</sup> quarter of 2019 (Clement, 2020). One emerging mobile marketing venue is mobile apps, especially branded mobile apps or branded apps. Although various studies have been conducted to explore mobile apps and branded apps, to the best of our knowledge, little systematic academic research attention has looked at the brand co-creation aspect of branded apps. To fill this literature gap, this study develops a conceptual model to examine the antecedents and outcomes of brand co-creation in the branded apps based on service dominant perspective of value co-creation.

Specifically, this study intends to examine how the branded app experience, branded app personalization and brand coolness could impact brand co-creation and ultimately the app stickiness (i.e. consumers' intention to continue using the branded apps) and their intention to buy products through branded apps. It is also important to understand the drivers behind brand co-creation among the branded app users in order to better design appropriate app features and engage the users.

### **Method And Data**

The survey was administered using Qualtrics and data were collected from students at two public universities in the United States. Out of 650 responses collected, 573 responses were complete and analyzed. All the measurement scales were adopted from established literature and adjusted to fit the branded app context: branded app personalization and experience (Fang, 2019), brand coolness (Warren & Campbell, 2014), value co-creation (Nysveen & Pederson, 2014), app stickiness (Bhattacharjee, 2001), and purchase intention (Yoo, et al., 2000). All the questions used a seven-point Likert scale with 1 being "strongly disagree" and 7 being "strongly agree". Age, sex and time of using apps were used as covariates. This study utilized the prediction-oriented, variance-based approach with PLS-SEM to assess the model using SmartPLS 3 software. To assess internal consistency reliability, we evaluated Cronbach's alpha, composite reliability, and factor loadings. Using 0.7 as the threshold, all criteria met or exceeded the requirement (Hair, et al., 2017). We used average variance extracted (AVE) to test convergent validity. All the AVE values (0.546 - 0.917) for related constructs were greater than 0.5, confirming convergent validity (Hair, et al., 2017). Following Fornell and Larcker (1981) and HTMT (Hair, et al., 2017), discriminant validity was established.

### **Summary of Findings**

The structural model was assessed through two criteria as suggested by Hair et al. (2016): coefficients of determination ( $R^2$ ) and path coefficients. First,  $R^2$  values for value co-creation, brand coolness, app stickiness, brand app experience, and purchase intention were 0.441, 0.125, 0.101, 0.219, and 0.228, respectively, which indicated weak to moderate predictive power for corresponding constructs (Hair, et al., 2017). Second, path coefficients were used to test hypotheses (Hair, et al., 2017). Among the hypotheses predicting main effects, all hypotheses were supported. Specifically, branded app personalization positively affects experience, brand coolness, and value co-creation ( $\beta = 0.468$ ,  $p < .01$ ,  $\beta = 0.353$ ,  $p < .01$ ,  $\beta = 0.172$ ,  $p < .01$ , respectively), or H1, H2, and H3 are supported. Branded app experience positively affects value co-creation ( $\beta = 0.366$ ,  $p < .01$ ), or H4 is supported. Brand coolness positively affects value co-creation ( $\beta = 0.306$ ,  $p < .01$ ), or H5 is supported. Value co-creation positively affects app stickiness and purchase intention ( $\beta = 0.318$ ,  $p < .01$ ,  $\beta = 0.368$ ,  $p < .01$ , respectively), or H6 and H7 are supported. In addition, app stickiness positively affects purchase intention ( $\beta = 0.200$ ,  $p < .01$ ), or H8 is supported.

### **Statement of Key Contributions**

This study extends the marketing literature on brand experience and value co-creation to mobile commerce context. The extant literature considers that value co-creation creates brand experience, but this study argues that the relationship between brand experience and value co-creation could be iterative, especially in the branded app context. As brand co-creation positively influences the continual app use and in-app purchase intention, value co-creation could be considered as an important mediator to connect brand experience with the brand loyalty. Based on service dominant perspective of value co-creation, branded apps can be considered as a

service system for value co-creation, which expands the domain of service logic approach. Some practical insights could be learned from this study. For example, branded apps could place firms ahead of the game as long as they are incorporated in the early phase of the branded app development process. It is also crucial for the firms to consider the role of branded apps personalization in brand co-creation and desired behavioral outcomes in order to convert an app user to a customer. A good branded app allows customers to interact with the brand, enabling the firm to receive feedback from customers to make strategic decision making.

References are available upon request.

**GOVERNANCE AND TRUST IN THE SHARING ECONOMY: ISSUES AND SOLUTIONS ALONG THE SOCIAL-ECONOMIC EXCHANGE CONTINUUM**

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**Keywords:** sharing economy, governance, trust, agency theory, social exchange theory

**Description:** Leveraging governance theories from marketing and management, the authors develop a conceptual model of formal and relational governance mechanisms in the sharing economy, and provide recommendations to platform managers to prevent provider or customer defection resulting from a breakdown in trust.

## **EXTENDED ABSTRACT**

### **Research Question**

The peer-to-peer (P2P) sharing economy relies on trust. Individuals invite strangers into their homes and vehicles, making themselves vulnerable to personal and property risk. Sharing economy exchanges are further complicated because they often blend social and economic exchange into a hybrid form that affects sharing motives and behavior. The complexity, uncertainty, and risk in sharing economy exchanges, the hybrid nature of the sharing economy, and the importance of trust all suggest the need for effective governance. However, extant research on the conflict between economic and social exchange in the sharing economy is largely consumer-centric, and research on governance mechanisms has focused on reputation systems (i.e. peer reviews), which can be flawed by positivity bias and little variance in response. We address this gap with three important research questions: 1) how can platforms complement the reputation system with other governance mechanisms to regulate exchange? 2) given that both consumer motives and platform benefits range from economic to social, how does that continuum affect governance problems and governance mechanisms in the sharing economy in general, and in building trust specifically? and 3) ultimately, what is the nature and role of trust in the sharing economy?

### **Method And Data**

We develop and validate our model through qualitative in-depth interviews and open-ended survey questions (Study 1), and a field study using text analysis (Study 2). The research context is peer-to-peer homesharing which is one of the largest sharing economy segments. We

investigate four homesharing platforms ranging from mostly economic to mostly social exchange. In Study 1, we use a grounded theory approach to develop a conceptual model describing how governance mechanisms are used in economic-focused, social-focused, and hybrid platforms, and the trust-based issues experienced by members of these platforms. The qualitative data was collected through long interviews with thirteen providers and consumers of Airbnb and Couchsurfing resulting in 443 pages of single-spaced transcripts, and a large survey with over 300 members of RVEzy that included broad, open-ended questions that were then analyzed thematically. In Study 2, we use latent Dirichlet allocation (LDA) and co-word analysis to examine the topics discussed in online homesharing communities on Reddit.com. This demonstrates that there is a match between the model and the lay theories of platform governance discussed in these real-world digital conversations, providing external validity for the model.

### **Summary of Findings**

We contribute three key findings. First, we find that economic-focused platforms favor formal governance mechanisms such as institutional controls and contracts that reduce perceived risk and drive trust in the platform (institution-based trust). In contrast, social-focused platforms favor relational mechanisms such as shared values and relational norms, which leads to interpersonal trust in the membership. The development of each form of trust may come at the expense of the other. Second, we find that the reputation system is used differently by members of economic-focused and social-focused platforms. For economic-focused platforms, the reputation system has a functional role in matching, and is used most often as a formal mechanism to manage problems through monitoring, enforcement, and reward. In contrast,

members of social-focused platforms use the reputation system extensively as a screening mechanism to assess trustworthiness, and it acts as a deterrence to opportunism by the threat of negative community feedback. Third, we find that the trade-off between mechanisms can contribute to a breakdown in trust. For example, institutional controls may lead members to accept undue risk by forgoing a careful screening of reviews, while relational norms that discourage negative reviews may allow opportunistic providers to take advantage of consumer dependencies.

### **Statement of Key Contributions**

We contribute to both strategic marketing research on governance and consumer research on the hybrid nature of the sharing economy. We develop a comprehensive model of sharing economy governance that explains the use and role of: 1) governance mechanisms that regulate relationships between platforms and their members and between peer providers and consumers, 2) governance mechanisms to manage problems before exchange commitment and problems after commitment, and 3) governance mechanisms favored by economic-focused platforms and favored by social-focused platforms. In doing so, we illuminate the role of trust in the sharing economy, and identify the trade-off between signaling trustworthiness of the platform as an institution through formal governance, or signaling trustworthiness of the platform's community through relational governance. We expand on strategic governance research by showing that although governance mechanisms are designed to reduce exchange-related issues, the trade-off between mechanisms can contribute to a breakdown in trust that must be strategically managed by the platforms to prevent provider or customer defection. We target the research to managers



of sharing economy platforms, and provide specific recommendations for economic-focused and social-focused platforms to prevent opportunism and/or to resolve conflicts effectively.

## **HOW CAN SOCIAL MEDIA INFLUENCERS BE MORE INFLUENTIAL? AN EXAMINATION OF THE ROLES OF AUTHENTICITY AND RELATABILITY?**

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**Keywords:** Influencers, Social media, Authenticity, Relatability, Purchase Intentions

**Description:** This research draws upon self-determination and social identity theories to examine the effect of perceived influencer authenticity and relatability on shaping attitudes toward the influencer and purchase intentions for market offerings they present.

### **EXTENDED ABSTRACT**

**Research Question:** Recent reports reveal alarming declines in influencers' engagement rates as measured by the like follower ratio (i.e., the average number of likes on each post compared to the number of followers; Williams 2019), highlighting the need to provide a deeper understanding of factors that impact influencers' success on social media. As such, the present research focuses attention on the specific beauty influencer traits that ultimately impact consumers' purchasing behavior. Specifically, this research investigates the relationship between 1) influencer authenticity and attitude towards influencers; 2) relatability of influencers and attitude towards influencers; and 3) attitude towards influencers and purchase intentions toward the market offerings reviewed by the focal influencer.

**Method and Data:** In exchange for extra credit, undergraduate students at two universities located in the mid-western and southwestern United States completed the online survey questionnaire. Since 70% of teen consumers trust influencers more than traditional celebrities (Digital Marketing Institute 2019), university students were deemed an appropriate sampling frame for this study. Out of 497 respondents, 404 respondents followed a beauty influencer on social media (81%). Of these respondents, 283 completed the entire questionnaire, which was the final sample size. Gerbing and Anderson's (1988) two-step process was employed to confirm construct reliability and validity. Next, an exploratory factor analysis (EFA) was first conducted, with principal component extraction and Varimax rotation, followed by AMOS 26 to conduct the Confirmatory Factor Analysis (CFA). To test the hypotheses, the path coefficients between the constructs were analyzed. Moreover, PROCESS Model 4 was also used to assess the mediation relationships.

**Summary of Findings:** Social media influencers can take advantage of their influence to obtain personal rewards by entering into partnerships with brands and receiving perks. The results demonstrate that followers ascribe values to the intrinsic motivations and noncommercial orientation of beauty influencers. This observation simultaneously points toward and underscores the critical role that perceived authenticity can and should play as marketers seek to make influencers' promotional efforts more effective (Audrezet, DeKerviler, and Moulard 2018). The results further suggest that relatability is an important factor that affects consumer compliance with influencer requests (i.e., purchasing promoted products, sharing influencer posts with others, etc.). Research conducted inside medical psychology and public health domains has shown that reciprocity, quality of relationship, and mutual respect stimulate higher compliance among patients (Dada et al. 2019). Given the interactive nature of social networks, reciprocity,

mutual respect, and quality of relationship should also favorably affect social media influencer-follower interactions. For now, however, it makes sense that that influencer relatability has also been revealed as another valuable concept to explore further.

**Statement of Key contributions:** The present research provides a theory-driven, empirical analysis of the role of perceived authenticity and relatability of beauty influencers in social media on individuals' (followers') attitudes towards the influencer and their intention to purchase the goods/services presented/promoted by him/her. The insights provide several contributions. First, the research expands the domains of self-determination theory to influencer marketing by indicating how authenticity is associated with intrinsic motivation. This is a novel approach in assessing the effectiveness of social media influencers, as the majority of prior research has followed the traditional models of source credibility and focused on factors such as attractiveness, expertise, and trustworthiness, none of which is related to intrinsic motivation for social media activities of influencers. Second, this study is the first to examine the role of authenticity and relatability in shaping individuals' attitudes towards beauty influencers in the context of social media marketing. Third, the research provides evidence for the mediating role of attitude toward influencer in the relationship between authenticity, relatability, and purchase intentions. Moreover, the research specifically focuses on beauty influencers, as factors shaping individuals' attitudes and behavioral intentions regarding the influencer vary depending on the industry.

References are available upon request.

**Impact of Celebrity Endorsement on Online Reviews*****EXTENDED ABSTRACT***

This study explores the scantily researched phenomenon of the impact of celebrity endorsement on social media on consumers' online reviews of brands. Employing parasocial relationships theory, the present study finds that in India, positive ratings in online reviews is higher for brands endorsed by celebrities on social media than for non-endorsed brands. Further, the popularity of celebrities and multiple brand endorsements positively and negatively moderate this relationship. Overall, brands endorsed by celebrities receive more positive ratings than competing brands not endorsed by celebrities. Based on a sample of 877 Indian consumers and subjecting the data to hierarchical regression analysis, we find evidence in support of our proposed hypotheses.

## ***KEY CONTRIBUTIONS TO ACADEMICS AND PRACTITIONERS***

### ***Contribution to Academics***

This study contributes to the ongoing research on the effectiveness of online advertising, especially brand endorsement by celebrities. No research to the best of our knowledge has explored if consumers' experience with products and hence online reviews is biased for brands endorsed by celebrities. Through this article, we introduce celebrities as a social group who, by developing a parasocial relationship with consumers, influences the online reviews that consumers post for brands endorsed by celebrities on social media. Extant literature has explored how online reviews influence the helpfulness of reviews (Ahmad and Laroche 2017). The findings of this study supplement this stream of literature by elaborating how opinions expressed by consumers for products endorsed by celebrities have a positive effect on ratings in online reviews.

The present study extends advertising research, indicating that celebrities influence not only consumers' pre-consumption behavior but also their post-consumption behavior. Another contribution of the present study to the celebrity endorsement literature is the exploration of celebrities' traits that might influence the biasness in online reviews. In this regard, we find that celebrity popularity positively influences positive ratings.

### ***Contribution to Practitioners***

Advertising agencies have remained wary about globalization or localization of advertising content, given the homogenous or heterogeneous consumer needs (Onkvisit and Shaw 1999). Additionally, the results of the present study are relevant for India, where celebrity endorsements on social media are likely to result in more positive affective content in online reviews. Hence, brands endorsed by celebrities are likely to receive favorable online reviews, indicating that consumers have a more positive experience with them in comparison to brands not endorsed by celebrities. This result indicates celebrities can help preserve a brand's image

in India, suggesting that for profit firms and advertising agencies should focus more on endorsements.

## ***INTRODUCTION***

Consumers can evaluate product quality post-consumption, based on which they give reviews to the product. Scholars have asserted that reviews provided by consumers are not purely objective because they are influenced by several consumer traits (Yap and Gaur 2014). To differentiate themselves from the majority who gave positive reviews, consumers display, as an example of the polarization effect, a tendency to post more negative reviews. Given that consumers' online reviews are sometimes biased, celebrities may present an important aspect that could also create bias in the online reviews given by consumers. Although previous research has explored the helpfulness of reviews for celebrity-endorsed brands (Wei and Lu 2013; Zhu et al. 2014), extant literature has not explored, if celebrity endorsement biases *post-consumption product experience of a consumer* and thereby, online reviews posted by consumers. This is a vital gap in the online reviews' literature, especially for brands endorsed by celebrities on social media.

Consumers by virtue of their parasocial relationship with celebrities on social media experience more positive experience with the product and hence, give positive reviews. Rather even if they have a negative experience with a product, to confirm with a celebrity's opinion about the product, they may give positive reviews to the product, resulting in positive biasness of online reviews of products endorsed by celebrities.

Leveraging on the parasocial relationship theory, we assert that when consumers hear directly from celebrities through social media, it makes them feel as though they know the celebrities personally (Marwick and Boyd 2011; Reinakenen et al, 2020). As consumers tend to strengthen their parasocial relationships with celebrities on social media, they are more likely to be driven by the opinions of celebrities and thus give positive reviews about the brands that celebrities endorse (Chung and Ho 2017). However, not all celebrities are equally effective in influencing consumers' experiences with a product. Several traits such as



popularity or multiple brand endorsements could affect the ability of celebrities to exert social influence on consumers' online reviews (Winterich et al. 2018). However, as with the role of celebrity endorsement in biasing consumers' online reviews, the traits of celebrities have yet to be examined.

The current study has two objectives. The first objective is to explore whether celebrity brand endorsement through social media influences the positive online reviews given by consumers. The second objective is to examine whether traits associated with celebrities, such as their popularity or endorsement of multiple brands, influence positive online reviews.

### ***REVIEW OF LITERATURE***

Consumers present online reviews through ratings and descriptive sentences in online reviews. One of the major traits of these descriptive sentences representing online reviews is the presence of affective content in the reviews (Ludwig et al. 2013). In online reviews, consumers present their opinion and experience with the product in the verbatim text using affective or sentiment laden words such as "I love the book" or "worst book ever read." These affective words convey emotions and sentiments such as happiness, anger, or sadness (Altarriba and Basnight-Brown 2011). As word cues are the most effective way to present internal feelings, i.e., affect, scholars have repeatedly used affective content in online reviews to gauge consumers' sentiments towards the product (Cheung et al. 2009). We assert that for products endorsed by celebrities, affective content is likely to be positive, i.e., consumers are likely to use more positive words. Similarly, consumers are more likely to give positive ratings to the product endorsed by the celebrity. Consumers do so because of the parasocial relationship they develop with a celebrity. The following section explains this relationship further.

### ***Celebrity Endorsement on Social Media***

Celebrities' power to influence consumers' purchase decisions has proven effective not only through the traditional channels of advertising but also through social media. In the context of online advertisement, the parasocial relationship theory could better explain the role of celebrities as effective endorsers (Hwang and Zhang 2018).

Parasocial relationships refer to intimate relationships between audiences and celebrities (Horton and Wohl 1956; Yuan et al, 2019; Yuan et al, 2020). Horton and Wohl (1956) listed attributes such as friendship, understanding, and identification as key themes for parasocial relationships. As consumers with frequent one-way interaction start considering celebrities as their friends, they also tend to identify strongly with the celebrities.

Overall, through social media, communication between social media followers and celebrities is stronger compared to communication through traditional media (Labrecque 2014). The aspects of online communication, such as content production, interactions between a celebrity and follower, or activities in which followers engage, are different from traditional mass media context (Hoffman and Novak 1996; Perse and Courtright 1993). As social media provides an interactive environment, followers can better engage in communication and interact more directly and frequently with celebrities compared to traditional media, where followers are merely passive receivers of messages from celebrities. Furthermore, as these celebrities use social media for promoting brands, followers are enticed to purchase the brands and, most likely under the placebo effect, give positive reviews about the product (Karasiewicz and Kowalczyk 2014).

### ***Celebrity Endorsement and Positively Biased Online Review***

We assert that as consumers form parasocial relationships with celebrities on social media, their post consumption product experience, and hence online review is likely to be altered for

brands endorsed by celebrities in two ways. First, either by reducing cognitive dissonance or second through celebrity fandom effect.

Festinger's (1957) cognitive dissonance theory explains that individuals have an inner drive to hold their beliefs in harmony, avoiding any conflicting attitudes. Whenever a conflict arises, individuals try to change their beliefs in order to again achieve harmony.

Cognitive dissonance theory thus implies that celebrities, by virtue of their parasocial relationship, could bias consumers' experience with a product. The psychology literature shows that when consumers do not follow the opinions of celebrities, they experience dissonance (Hoffman and Tan 2013). Along similar lines, if a consumer does not have a positive experience with a product endorsed by celebrities, dissonance could result. To reduce this dissonance, a moisturizer might appeal to consumers as having superior skin softening properties (even if it does not) if a celebrity endorses the lotion. Even if consumers recognize that a product is no better or worse than other products, they may change their definition of a good moisturizer or good picture quality so as to keep their beliefs about a product aligned with their beliefs about the celebrities endorsing the product. Therefore, consumers either search for the positive attributes of a product or think less negatively about a product endorsed by celebrities.

Alternatively, as suggested by celebrity fandom literature, consumers out of affection, respect, and admiration that they have for celebrities and their intention to maintain parasocial relationships, may admire objects, and by extension brands, associated with them (Lee et al. 2008). Rather, as consumers admire celebrities by virtue of parasocial relationships with celebrities (Hwang and Zhang 2018), they begin to believe in the opinions of celebrities (Valente and Pumpuang 2007), which implies that consumers are willing to follow actions that align with the celebrity's beliefs and values (Toelch and Dolan 2015). Explaining the intentions of individuals seeking to imitate the behavior of others to maintain a desired

relationship with them, Kelman (1961, p.59) stated, “By saying what the other says, doing what he does, believing what he believes, the individual maintains this relationship and the satisfying self-definition that it provides him.”

Because consumers tend to form stronger parasocial relationships with celebrities, we assert that they either reduce cognitive dissonance with product experience or irrespective of actual product experience tend to corroborate with the viewpoints of celebrities endorsing the brand by giving more positive reviews for brand endorsed by a celebrity. Hence, we hypothesize the following:

**H1 (a)** The stronger the parasocial relationship with a celebrity, the more positive is the online review given by a consumer for a brand endorsed by a celebrity.

**H1(b)** Brands endorsed by celebrities are likely to receive more positive reviews than brands not endorsed by celebrities.

### ***Celebrity Popularity Online Reviews***

Until now, we have discussed how a parasocial relationship between celebrities and consumers results in more positive online reviews for brands endorsed by celebrities.

Although all celebrities constitute common traits such as success, fame, and popularity, they differ in the degree to which they are popular (Choi et al. 2005). A celebrity’s popularity may influence the relationship between celebrity endorsement and the positive online review.

One of the advantages that celebrities bring to brand endorsement is their ability to captivate viewers’ attention, resulting in higher engagement. Consumers associate themselves with celebrities in search of psychological benefits, personal expression, and enhanced self-esteem (Cui 2017). Thus, the stronger the association with celebrity, the higher the celebrity’s ability to influence consumer behavior, such as brand evaluation or positivity in online reviews. The popularity of a celebrity may enhance the celebrity’s ability to influence consumer behavior by further strengthening the association that the consumer has with the

celebrity. Generally, the more reputed and successful celebrities gain the most popularity. Thus, the popularity of the celebrity can further enhance a celebrity's ability to create positive online reviews. Hence, we hypothesize the following:

**H2** The popularity of celebrity moderates the relationship between the positive online reviews and the parasocial relationship with the celebrity such that the more popular is the celebrity, the more positive is the impact of the parasocial relationship on the positive biasness in online reviews.

### ***Celebrity Multiple Brand Endorsements and Online Reviews***

Celebrities generally endorse more than one brand at a time. However, such multiple endorsements could diminish a celebrity's ability to exert social influence on consumers. While consumers are more likely to rely on social media messages if the spokesperson is credible (Priester and Petty 2003), when celebrities endorse multiple brands, the associative linkage between the celebrity and the brand becomes more complex for consumers (Chen et al. 2013). This complexity results because, although celebrities are excellent vehicles for narrating and transferring brand experience (Phillips and McQuarrie 2010) when they endorse multiple brands, their credibility decreases. Thus, at times, firms opt for exclusive endorsement rights because they more strongly influence consumer attitudes and experiences with the brand (Erdogan and Baker 2000). Extant literature indicates that multiple brand endorsements by a celebrity generally result in a poor brand evaluation by consumers (Bergkvist and Zhou 2016). This effect is likely to be seen in consumers' online behavior as well because multiple endorsements might make it difficult for consumers to socially identify themselves with the celebrities, thus diminishing the strength of the parasocial relationship between the celebrity and the consumer. Consequently, with multiple brand endorsements on social media, the celebrity's ability to drive positive online reviews may diminish. Overall,

the more exclusive the endorsement, the better the parasocial relationship, resulting in more positive online reviews. Hence, we posit the following hypothesis:

**H3** Multiple brand endorsement negatively moderates the relationship between the positive online reviews and the parasocial relationship, such that the relationship is less positive when a celebrity endorses multiple brands.

## **METHODOLOGY**

Survey-based quantitative research was conducted in India to examine the effect of parasocial relationships on the positive online reviews.

### ***Data***

Data for the present study was collected, employing the services of a market research firm based in India that had access to consumers throughout India. An invitation to participate in the survey email was sent to 2,284 individuals across India. Sixty-six percent of the individuals agreed to participate in the study. Through random assignment, 50% of the individuals were assigned to the celebrity-endorsed brand condition while the remaining to the non-endorsed or competing brand condition. We obtained a total of 456 usable responses (Females = 219) from 479 participants who completed the survey in the celebrity-endorsed condition. A total of 421 (Females = 208) usable responses were obtained from 448 participants who completed the survey in the non-endorsed condition.

Next, participants in both conditions wrote a product review. Participants were also asked to give star ratings to the product, with 1-star indicating poor performance and 5-stars implying excellent performance. After completing the review and ratings, we asked the participants to recall the name of the brand; whether a celebrity endorsed the brand and if yes, the name of the celebrity. Participants were further asked whether the celebrity promoted the brand on social media and the estimated price of the product.

Furthermore, we asked participants in the celebrity-endorsed condition if they believed that the celebrity was popular and how many fans they had on social media. Participants were also asked if they could recall how many brands the celebrity was endorsing. Finally, participants responded to the parasocial relationship scale (Escalas and Bettman 2017) and the hedonic/ utilitarian scale (Voss et al. 2003).

### ***Operationalization of Variables***

#### *Dependent Variables*

As consumers post online reviews both through ratings, we used it as dependent variable.

#### *Independent Variables*

Parasocial relationship. In this survey-based study, parasocial relationships were measured using the 13-item modified scale of Escalas and Bettman (2017). For the present study, we modified that scale to the context of social media. Each of the thirteen items was anchored on a seven-point scale, 1= strongly disagree to 7 = strongly agree. The internal validity of the scale ( $\alpha = 0.90$ ) was high.

Celebrity popularity. This was measured by asking participants to estimate the number of fans of the celebrity on social media.

Multiple brand endorsements. This was measured by asking respondents the estimated total number of brands endorsed by a celebrity.

Moderating effect of celebrity popularity. For this, the interaction term of celebrity popularity and parasocial relationships was considered after variables were mean-centered (West et al. 1996).

Moderating effect of multiple brand endorsements. For this, the interaction term of multiple brand endorsement and parasocial relationships was considered after variables were mean-centered (West et al. 1996).

#### *Control Variables*

Product category. Hedonic versus utilitarian products have been found to impact how consumers use affective content and how online communities explore review helpfulness (Moore 2015). Furthermore, even the effectiveness of celebrity endorsement has been found to vary across hedonic vs utilitarian products (Spry et al. 2011; Stafford et al. 2002). Thus, in the present study, we controlled for the product category. Using the 10-item (HED/ UT) scale developed by Voss et al. (2003), we asked respondents if they perceived the product as utilitarian or hedonic. All the scale items were measured on a seven-point semantic differential scale.

Product fit. In the endorsement literature, product fit has been found influencing consumer attitudes towards a brand and advertisement (Chang and Ko 2016). We measured celebrity-product fit on four items using a 7-point scale in which the items were rated as “very inappropriate/very appropriate,” “very unlikely/very likely,” “very irrelevant/very relevant,” and “congruent/not congruent” (e.g., Kamins and Gupta 1994; Lee and Thorson 2008; Till and Busler 2000).

Celebrity age and gender. We controlled for age and gender of the celebrity. Gender was dummy coded with female celebrity given a code of 0 and male celebrity given a code of 1. We asked respondents estimated age of celebrity. For celebrity age, the natural logarithm was used to avoid variability in data.

Market share. Firms with larger market share are more likely to indulge in celebrity endorsement, thus it was necessary to control for market share as well. However, due to the limited availability of the data, we controlled for the price of a brand, as price typically determines market share (Sethuraman 1995; Weiss 1968). We asked respondents the estimated price of the product, and the average price for a particular brand was considered.

## **RESULTS**



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The average rating by participants in the celebrity-endorsed condition was significantly higher than the average rating by participants in the non-endorsed condition ( $M = 3.91$  vs  $M = 2.66$ ,  $t(875) = 13.56$ ,  $p < 0.01$ ).

Ninety-five percent and 92% of the participants accurately recalled the name of the brand in the celebrity-endorsed and non-endorsed conditions respectively. In the celebrity-endorsed condition, 93% of the respondents confirmed the brand as celebrity-endorsed of whom 96% could accurately recall the name of the celebrity, 90% replied in the affirmative that the celebrity indeed endorsed the brand on social media, and 91% believed the endorser was popular. When asked about the number of followers that the celebrity had on social media and the number of brands endorsed by the celebrity, 82% and 86% of the participants who confirmed a celebrity endorsed the brand, estimated the correct number of followers and brands endorsed within one standard deviation. While performing robustness checks we also used the actual number of endorsements. Eighty-eight percent of the customers in the celebrity-endorsed condition estimated the correct price of the brand within one standard deviation. In the non-endorsed condition, 84% of the respondents could accurately recall the name of the brand. Further, 12% of the participants believed the brand was endorsed by a celebrity of whom a further 12% believed the celebrity endorsed the brand on social media. Seventy-six percent of the customers in the non-endorsed condition estimated the correct price of the brand within one standard deviation.

Next, using hierarchical regression analysis, we examined our three hypotheses. In the first stage, we entered all the control variables. In the second stage, we entered the variables- parasocial relationships, celebrity popularity, and multiple brand endorsement. In the third stage, we included interaction terms. The correlation coefficient of parasocial relationships and the product rating was positive and significant ( $r = 0.34$ ,  $p < 0.01$ ), we receive preliminary evidence for our first hypothesis.

The beta coefficient of parasocial relationships was positive and significant ( $\beta = 0.124, p < 0.01$ ), implying we receive evidence in support of the first subset of the first hypothesis. Next, the beta coefficient of the interaction effect variable, i.e. celebrity popularity and parasocial relationships was positive and significant ( $\beta = 0.133, p < 0.01$ ) and the beta coefficient of the interaction of multiple brand endorsements and parasocial relationships was negative and significant ( $\beta = -0.098, p < 0.05$ ). We, therefore, receive evidence in support of the second and the third hypothesis as well. Thus, with popular celebrities, the impact of parasocial relationships on online reviews was higher. Similarly, when celebrities endorsed multiple brands, the impact of parasocial relationships on online review rating decreased. Table 1 presents the results of the hierarchical regression analysis.

### ***Robustness***

Instead of using the survey data on multiple brand endorsements and the number of fans following a celebrity on social media, we checked the actual number of brands endorsed by a celebrity and the actual number of fans following a celebrity on social media. Though the beta coefficient changed, however, overall, the results remained statistically significant.

## **DISCUSSION AND CONCLUSION**

By employing the parasocial relationship theory, this study explores the impact of celebrity endorsement on the positive online reviews for products endorsed by celebrities on social media. Our results indicate that the social influence of celebrities' results in better review ratings.

For traits related to celebrities, such as popularity and the number of brands endorsed, the present study found that popularity positively influenced the impact of celebrity endorsement on the online reviews. Notably, a significant negative impact of multiple brand endorsements was also observed on the online reviews. Regarding multiple brand endorsements, extant literature has yielded inconsistent results (Knoll and Mathes 2017), with

some studies reporting a negative impact (Rice et al. 2012) and others claiming a positive impact (Ilicic and Webster 2011) on endorsement effectiveness. Our findings suggest that multiple brand endorsements by celebrities reduce the impact of a parasocial relationship and that, consequently, reduces positivity in online reviews.

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**TABLE 1. HIERARCHICAL LINEAR REGRESSION (D.V.: AFFECTIVE CONTENT IN ONLINE REVIEWS)**

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Parasocial relationships		0.124*** (0.034)	0.128*** (0.036)
Celebrity popularity		0.074*** (0.025)	0.075*** (0.026)
Multiple brand endorsements		-0.083** (0.027)	-0.089 (0.029)
Celebrity popularity*Parasocial relationships			0.133*** (0.042)
Multiple brand endorsements * Parasocial relationships			-0.098** (0.036)
Celebrity age	0.049 (0.042)	0.051 (0.046)	0.053 (0.048)
Celebrity gender	0.04 (0.033)	0.052 (0.037)	0.053 (0.038)
Product fit	0.082 (0.071)	0.094 (0.076)	0.095 (0.078)
Product category	0.116** (0.032)	0.118** (0.033)	0.118** (0.033)
Market share (Price of a brand)	0.03 (0.007)	0.034 (0.009)	0.034 (0.009)
<b><i>R-square</i></b>	0.063	0.127	0.158

\*\*\*,p<0.01; \*\*,p<0.05,\*,p<.10

**LEVERAGING REVIEWER PURCHASE INFORMATION FOR PRODUCT SALES:  
THE EFFECTS OF VERIFIED PURCHASE REVIEWS**

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Keywords: online reviews, verified purchase, dynamic linear model, endogeneity

Description: In this research, the authors examined whether and when online reviews with a  
“Verified Purchase” Label have a greater impact on product sales.

**EXTENDED ABSTRACT**

**Research Question**

The credibility of online reviews has come into question in recent years due to increasing concerns about review manipulations. Consequently, many online platforms have started adding review features that enhance the credibility of online reviews, including reviewer’s identity, reviewer reputation, reviewer ranking, helpful vote, and review device. However, these features do not address the concern that people may be writing product reviews without purchasing the product, which still makes consumers cast doubt on the authenticity of online reviews. In this research, the authors examine the increasingly popular feature of online reviews called “Verified Purchase” label, which is considered as a promising solution to increase perceived review

credibility. Specifically, the authors aim to answer whether and when reviews with a “Verified Purchase” label have a greater impact on product sales.

### **Method and Data**

The authors collected data of online review system designs from 200+ online platforms and conducted a survey to examine whether “Verified Purchase” label makes an online review more credible compared to other features. Combining survey insights and theories, the authors further estimated a Dynamic Linear Model (DLM) using sales rank of new books released in 2017 along with online reviews data from Amazon.com. The estimation accounts for endogeneity of online review measures via instrumental variables, which were constructed using a large corpus of individual reviewer history.

### **Summary of Findings**

Among the 200+ platforms, more than 100 platforms have adopted “Verified Purchase” label in the review system, which makes it the second most popular review feature. The results from DLM shows that in terms of review valence, the difference between the impacts of verified purchase reviews and non-verified purchase reviews on sales rank is large when a book is newly-released. Such differential impacts attenuate over the life of the book. As for review volume, although the impacts of verified purchase reviews and non-verified purchase reviews change in a similar manner over the book life cycle, the impact of verified purchase reviews always is larger than that of non-verified purchase reviews.

### **Key Contributions**

We contribute to the growing literature on different features of online reviews. From a practical standpoint, our research helps managers of online platforms to understand and measure the



economic value of verified purchase reviews better. This finding is important because many platforms still have not introduced verified purchase label, presumably because of the higher costs of implementation. Our research provides evidence that verified purchase reviews objectively leads to higher sales, which may negate the increased costs of implementation. We also contribute to the growing literature on the dynamic influences of online reviews. As verified purchase reviews have a higher bang for the buck in the early stages, managers should be willing to allocate a higher budget for incentivizing buyers to write reviews in the early stages. In the later stages of the product lifecycle, the impacts of verified purchase reviews and non-verified purchase reviews on sales rank are similar. Therefore, managers may shift the incentives to writing reviews by buyers and non-buyers in the later stages of the lifecycle.

References are available upon request.

**Mind Our Online Social Identity: Understanding the Formation of Customer  
Expectations for Responsiveness in Digital Environments**

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Keywords: Online social identity, expectations for responsiveness, digital environments.

## Research Motivation

In the current fast-paced digital environment, where everyone is a click/tweet away, customers have come to expect prompt responses and service from firms. Responsiveness—the service firm’s willingness to help customers and provide prompt service (Parasuraman et al., 1991)—thus, plays a crucial role in the firm’s ability to retain customers. A recent industry report shows that 80% customers expect firms to respond to their requests within 24 hours (CNBC, 2019). In fact, according to the report, customers aged 18–24 expect a response within one hour. Given these figures, it seems reasonable to advance that failure to understand the customer’s expectations for responsiveness may inadvertently suggest that the service firms are unresponsive and result in customer switching. Marketers should, therefore, carefully understand how customers form their expectations for responsiveness in today’s fast-paced digital environments and its implications for the customer’s likelihood of switching.

Over the last three decades, service research has attributed the formation of customers’ expectations to different factors. Seminal research shows that customers’ expectations are shaped by transitory service intensifiers, perceived service alternatives, customer self-perceived service roles, situational factors, and predicted service (Zeithaml et al., 1993). Studies have also shown that the macro environment, such as cultural dimensions, plays an important role in one’s understanding of customer expectations in general (Donthu and Yoo, 1998, Mattila, 1999, Winsted, 1997). In other words, the cultural environment influences the determinants of customers’ expectations (Furer et al., 2002). Although prior research has contributed to our understanding of the formation of customers’ expectations, not much is known about customers’ expectations for responsiveness as members of online peer groups.

Customers' identification with online peer groups offers a rich perspective on such expectation formation. It is viewed as the conception of one's self on social media, in terms of "the defining features of a self-inclusive social category that renders self stereotypically interchangeable with other in-group members" (Hogg, 1992, p. 90, Wang et al., 2012). Customers become less independent as they identify themselves with their online peers and develop "we-intentions" (Bagozzi and Dholakia, 2002). The current paper draws on these ideas to develop and test the proposition that the identification with online peer groups drives customers' expectations for responsiveness in two opposite directions. To illustrate, this study first argues that customers' expectations for responsiveness decrease as their identification with online peer groups increases. This argument assumes that customers seeking identification with online peer groups rely on these groups for the support or help that is normally expected from service firms. This assumption draws on seminal research arguing that these groups constitute a source of information and support for their members (Hagel, 1999, Wellman and Gulia, 1999). Second, this study relaxes the initial assumption to posit that customers who strongly identify with their online peer groups expect more from service firms in terms of responsiveness. This boundary condition takes into consideration the fact that identification creates "we-intentions" and resembles referent power (Bagozzi and Dholakia, 2002, French and Raven, 1959), which leads to high expectations from others (Paul et al., 2000).

## **Methodology**

Two studies were conducted to test how customers' identification with online peer groups influences their expectations for responsiveness as well as its implications for the likelihood of switching. In study 1, the investigation used an experimental design to test the theoretical link between customers' identification and expectations for responsiveness. Study 2 replicated

the nonlinear hypothesis. Both studies tested the indirect effect of customers' identification with online peer groups on the likelihood of switching.

### **Summary of Findings**

The findings indicated a significant quadratic effect of identification on expectations. Identification had a negative effect on expectations among customers with low levels of identification with online peer groups and a positive effect among those with high levels of identification. Moreover, the results indicated that the direct negative (positive) effect of customers' identification with online peer groups on the likelihood of switching was (not) significant. They showed that the tolerable adequate expectations for responsiveness had a positive effect on the likelihood of switching.

### **Key Contribution**

The current research contributes to both service-based literature and practice. This study disentangles the complex relationship between customers' identification with online peer groups and their expectations for responsiveness by connecting it with customers' interdependence and sense of empowerment. This is an important feature because the proposition that such identification linearly decreases customers' expectations can mislead service firm managers into believing that customers' strong identification with their peer groups may relieve the firm from its responsibility to be responsive. Marketers can thus efficiently allocate resources to customers according to their social identification levels.

## **REJECTING POTENTIAL PRODUCT TESTERS – BOON OR BANE?**

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Keywords: product testing, rejection management, scarcity effects, experimental research

One sentence description: Rejecting potential product testers can have positive as well as negative effects for companies.

### **EXTENDED ABSTRACT**

#### **Research Question**

In recent years, online product tests have become a well-known marketing tool. Many manufacturers, agencies and retailers give away free products to get feedback or an online review from the tester. Online product testing programs can be an effective marketing instrument for increasing word of mouth and online reviews (Garnefeld et al., 2021).

However, as receiving products for free and being allowed to keep them after testing is an

attractive opportunity for customers, typically a high number of applicants face only a limited number of test products (Yao et al., 2017). Hence, many applicants are rejected. Analyzing consequences of such rejections is especially important since our theoretical analysis and experimental studies show both positive and negative consequences of rejecting applicants for companies. On the one hand, companies rejecting customers can profit from a scarcity effect. Rejecting applicants has a positive effect on purchase behavior of the respective product which is mediated by product attractiveness. On the other hand, companies should be careful when rejecting applicants as we also show negative consequences of rejecting applicants. Customers become skeptical about the offer which makes them less inclined to buy the product and more likely to talk negatively about the company.

### **Method and Data**

We test our hypotheses in two experimental studies. In Study 1, we manipulated rejections of applications for a product test (rejected application versus no application). Using the PROCESS procedure the study examines the effect of a rejected application on customers' purchase intention and negative word of mouth as well as the mediating role of perceived attractiveness and skepticism. In Study 2, we manipulated rejections of applications for a product test (rejected application versus no application) and the price of the test product (low price versus high price) on two levels. With this study, we replicate our results from Study 1 and test the influence of price.

### **Summary of Findings**

In line with our hypotheses, rejections have a positive effect on rejected applicants' purchase intention via perceived attractiveness of the product. Results also support the negative effect of rejections on purchase behavior mediated by customers' perceived skepticism, which is especially pronounced for high price products. The positive indirect effect and the negative indirect effect on purchase intention cancel each other out. However, if the test product is of high price, we find a positive effect of a rejection on customers' negative word-of-mouth intention.

### **Key Contributions**

Based on attribution theory and the scarcity effect as well as two experimental studies, our research makes three important contributions. First, and against common sense, we find a positive effect of rejecting product testers for companies. In line with literature on scarcity, rejected applicants perceive the test product as scarce. Therefore, rejections increase applicants' perceived attractiveness of the product, which in turn increases their purchase likelihood.

Second, rejecting potential product testers also has a dark side. Rejected product testers will become skeptical as they might attribute their rejection to shady marketing practices of the company. As a consequence, they will less likely purchase the respective product and will talk negatively about the company.

Third, we identify the price of the test product as a context variable influencing the effect of a rejection on skepticism. If a test product is of high price, rejected product testers become especially skeptical. Thus, companies should carefully evaluate how to manage rejections when offering a product test.

References are available upon request.



## **SOCIAL ADAPTATION THEORY – DOES IT ADAPT TO SOCIAL INFLUENCER MARKETING?**

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**Keywords:** Influencer Marketing, Attractiveness, Expertise, Social Adaptation Theory

**Description:** A study to explore the role of social influencers' attractiveness and expertise in the context of attractiveness and non-attractiveness related products based on Social Adaptation Theory.

### **Research Question**

The popularity and scope of Influencer Marketing is growing: While this form of marketing communication initially was employed mostly for attractiveness-related products such as fashion or beauty, nowadays influencers also endorse non-attractiveness related products such as household appliance or even industrial goods. As research and practical experience in this context is still scarce, practitioners are struggling with the issue of whether they can use the same influencers as fashion brands and if they should select them according to the same requirements (Jahnke 2018; Lewinski 2018). **Social Adaptation theory** suggests that for **attractiveness-related product** the attractiveness of an endorser would have greater impact on consumer behavior. If the product is **unrelated to attractiveness**, other qualities, such as expertise would be more relevant (Kahle 1984). In this spirit, an investigation into the relevance of attractiveness and expertise of influencers for attractiveness and non-attractiveness related products is the core of this work. The effect of Attractiveness and Expertise on (a) Credibility, (b) Brand Attitude (c) Positive WOM and (d) Purchase Intention will be explored.

### **Method and Data**

Data collection was performed with an online survey from January 2020 through February 2020 shared among students of German universities. Ultimately, 748 data sets ( $M_{\text{age}} = 27$  years, 63.4% female) were employed. The structure of the questionnaires was as follows. First, the subjects' demographic data were collected. Second, the subjects were randomly assigned to one out of eight experimental groups. They were shown an attractive or unattractive influencer endorsing either a jeans brand or a vacuum cleaner brand by means of an Instagram post. A profile text exhibited that the influencer either possessed low or high expertise towards the product. For manipulation checks, in the third step, the relation to attractiveness of the product and the perceived attractiveness and perceived expertise of the influencer were queried. In the fourth step, the subjects provided their perception of the expertise and credibility of the influencer as well as brand attitude, intention to generate positive WOM and purchase intention (scales by Ohanian 1990, Till and Busler 2000, Wiedmann et al. 2014). The results were analyzed with structural equation modeling including a multigroup analysis.

### **Summary of Findings**

The results generated counter-intuitive findings. Counter-intuitively, the attractiveness of an influencer is not significantly more important for attractiveness than non-attractiveness related products; this contradicts the implications of social adaptation theory but stands in line with the findings of Bower and Landreth (2001) who negate differing effects of endorser attractiveness between attractiveness-related products and non-attractiveness related products. However, in line with social adaptation theory, for non-attractiveness related products, the impact of expertise on most of the analyzed constructs was significantly stronger than for attractiveness-related products.

### **Statement of Key Contributions**

Many of the extant studies on influencers have focused on endorsements of attractiveness-related products. Against this backdrop, practitioners are struggling with the issue of whether they can use the same influencers as fashion brands and if they should select them according to the same requirements. Social Adaptation and its implications could provide an answer: It suggests that the attractiveness of an endorser would have greater influence on consumer behavior if the product is attractiveness-related. If the product is not related to attractiveness, other qualities, i. e. expertise might be more relevant. These claims have been tested for traditional offline celebrities and led to ambiguous results. In the context of this research on influencer marketing, it becomes apparent that expertise is indeed more relevant for non-attractiveness related products than attractiveness-related ones. More surprisingly, attractiveness appears to be of equal relevance for both types. Thus, practitioners who are planning an endorsement of a non-attractiveness related product have to care that the selected influencers have both: High Attractiveness and Expertise.

References are available upon request.

# THE ASYMMETRIC IMPACTS OF PRODUCT PERFORMANCE AND CONSUMER EXPERIENCES ON EWOM

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**Keywords:** eWOM, product performance, consumer experience, consumer ratings

**Description:** Negative eWOM of product performance has a stronger impact on consumer ratings than that of consumer experience, while positive eWOM of consumer experience has a stronger impact on consumer ratings than that of product performance.

## EXTENDED ABSTRACT

### Research Question

Consumers' eWOM typically involves two fundamental elements: consumers' view on product performance (e.g., how well the product works) (Wang et al., 2018) and on their experience of the product (e.g., how do I feel about the product) (Chen and Xie 2008). While substantial research in the electronic word of mouth literature has demonstrated the power of eWOM in influencing product sales (e.g., Zhang et al., 2013), consumers' product judgment (Lee

and Youn 2009), and purchase intention (Jiménez and Mendoza 2013), few studies have examined the asymmetric effect of eWOM of product performance and eWOM of consumer experience on consumer ratings, which is essential to companies' success. Prior research has shown the asymmetric impact of negative and positive product performance on consumer satisfaction (Mittal et al., 1998) by applying the prospect theory (Kahneman and Tversky 1979). Specifically, Mittal et al. (1998) found that negative product performance has a stronger effect on consumer satisfaction and repurchase intentions than positive performance.

Our study extends their research by 1) proposing and testing the asymmetric effect of eWOM on product performance and consumer experience and 2) examining the asymmetric impact of the positive and negative effect of both product performance and consumer experience on consumer ratings.

#### **Method And Data (Not Applicable For Nonempirical Papers)**

We collected data from one of China's largest consumer automobile forums. The data included 187,251 consumer online feedback of 529 automobile series (293 SUVs, 236 sedans) in 2018. The dependent variable is aggregate consumer ratings for each automobile (score ranging from 1 to 5, where higher numbers indicate better ratings). The independent variables encompass the number of positive and negative product performance and the number of positive and negative consumer experiences extracted from these 187,251 consumer online feedback. We also control for the price, the product origin, and the type of the automobile.

### **Summary of Findings**

The regression results show that negative product performance has a stronger effect on consumer ratings ( $\beta = -.151$ ,  $p < .001$ , effect size: partial eta squared = .085) than does negative consumer experiences ( $\beta = -.127$ ,  $p < .001$ , partial eta squared = .055), in support of H1. Positive consumer experience instead has a stronger effect on consumer ratings ( $\beta = .234$ ,  $p < .001$ , partial eta squared = .145) than does positive product performance ( $\beta = .109$ ,  $p < .001$ , partial eta squared = .016), as predicted by H2. Among the control variables, price has a significant positive effect on consumer ratings ( $\beta = .078$ ,  $p < .001$ ). The country of origin of the product also has a significant effect, such that foreign automobiles receive lower consumer ratings than domestic ones ( $\beta = -.075$ ,  $p < .001$ ). SUV models have higher consumer ratings than sedan ( $\beta = .039$ ,  $p = .022$ ).

### **Key Contributions**

We expand knowledge in the area of eWOM by making several important contributions to the literature. First, while extant research suggests that both product performance and consumer experience affect eWOM, much less is known about which one has a stronger effect and whether the valence of product performance and consumer experience have a similar effect on consumer ratings. We found that product performance and consumer experience have asymmetric effects on consumer ratings. Specifically, negative product performance has a stronger impact on consumer ratings than negative consumer experience; however, the positive consumer experience has a stronger effect on consumer ratings than positive product performance.

Second, prior studies on eWOM have intensively examined consumer ratings of non-durable goods and services. We contribute to the literature by examining a durable good: an automobile. Automobiles are one of the largest purchases for consumers, and both product performance and consumer experience play critical roles in consumer ratings, allowing for the observation of these asymmetric effects.

Third, while the eWOM effect is well-documented for consumers in developed countries, studies of consumers in developing countries are called for. With comprehensive data on eWOM from consumers in China, this study finds that the country of origin effect is reversed. The results are contrary to the belief that foreign brand enjoys positive views among domestic consumers in developing countries.

References are available upon request.

**THE ERA OF FAKE NEWS: HOW TRUTHFULNESS AND ANIMOSITY  
INTERACT**

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**Keywords:** fake news, consumer animosity, consumer psychology, confirmation bias

**Acknowledgements:** This research was funded by the German Research Foundation (DFG), project „Me, We, and Them“ (grant HO 5738/3-1).

**Description:** This study examines the interaction of fake news and consumer animosity and reveals, that the veracity of news articles is only of secondary importance when the animosity feelings of consumers are high.

## **EXTENDED ABSTRACT**

### **Research Question**

In the recent decade, the use of various social media channels became inherent part of many individuals' daily routine. Within social media channels, especially, the phenomenon of fake news received greater attention. Because fake news containing controversial or emotional topics trigger strong consumer reactions, a simultaneous investigation of fake news and consumer animosity is of special relevance. Many countries experienced a shift from multilateral toward rather nationalistic tendencies. The Brexit, the trade war between various global players and the concurrent national measures to prevent the spread of the Sars-Cov-2-virus instead of a standardized solution for alliances mark only a few prominent examples for this current trend to focus on national interests. This suggests that also animosity tendencies will experience a boost and that the concept of consumer animosity will be of great relevance for researchers. Although there is already a lot of knowledge about the concept of consumer animosity and its' underlying mechanism, simultaneously examining animosity and fake news has not been studied yet. This is why this research approach investigates the interaction between consumer animosity and the appearance of fake news on consumer reactions and hence combines most relevant concept of the last years.

### **Method and Data**

Data was gathered through an online experiment with German nationals in March 2020. The U.S. were selected as the target country for animosity.

The experiment contains a fictional article, which claims the excessive Co2 emissions of American Airlines due to overcrowded flights. This article was posted by a Facebook user, and is commented by three different Facebook users. The layout, the names of the fictional Facebook users and the article about American Airlines were the same for the treatment and the



control group. The treatment group receives comments indicating that the content of this article is false, whereas the control group receives comments demonstrating the true content of this article. Respondents were randomly assigned to either the treatment group or the control group. Respondents answered questions from Klein (2002) on general animosity and product judgment and from Antonetti and Maklan (2016) on negative word-of-mouth (NWOM). Participants rated their degree of agreement on a seven-point Likert scale ranging from 1 (totally disagree) to 7 (totally agree).

In total, 81 completed questionnaires were used for one-factorial ANOVAs with SPSS and regression analyses with PROCESS (Hayes, 2017).

### **Summary of Findings**

The analysis confirms significant differences between the treatment and the control group regarding their NWOM intentions ( $\beta = .83$ ,  $t(80) = 2.90$ ,  $p = .005$ ) with the animosity as the moderating variable ( $\beta = -.25$ ,  $t(80) = -3.27$ ,  $p = .002$ ). Johnson and Newman's (1936) technique was used to run floodlight analysis (Spiller et al., 2013): Participants of the treatment group experienced significantly lower intentions for NWOM compared to participants from the control group, but only when the animosity feelings are low. When the animosity feelings are *high*, participants of the treatment group experienced significantly *higher* intentions for NWOM compared to the control group. Specifically, floodlight analysis at different values of animosity revealed that the proposed interaction effect is significant at -1SD (2.10) and at +1SD (4.71) of the animosity scale.

Further analyses reveal that the product judgment of American Airlines flights is also dependent on the truthfulness perception ( $\beta = -.30$ ,  $t(80) = -1.808$ ,  $p = .026$ ): Only when the animosity level is low—until a value of 3.92—the interaction effect is significant ( $\beta = -.09$ ,  $t(80) = -1.99$ ,  $p = .05$ ). Above this theoretical midpoint, animosity does not significantly affect the relationship between fake news and product judgment.

### **Statement of Key Contributions**

To the best of our knowledge, this study is the first study simultaneously examining the interplay between consumer animosity and fake news. The findings are in accordance with the general understanding of consumer animosity's independence from product judgment also in the combined setting with fake news. However, this research approach adds unique insights about ranges of animosity levels within which the interaction effect is significant. The findings reveal that consumers with high animosity tendencies do not make use of the facticity of the news content and rather try to confirm their initial prejudices and negatively react on that. Thus, the truthfulness of news are only of secondary importance for consumers with high animosity feelings.

This study adds important insights not only for academics, but also for practitioners and decision-makers by providing a deeper understanding about the mechanisms of relevant phenomena of the recent years. It highlights the importance of underlying animosity tendencies, which practitioners need to face when to decide about markets and key stakeholders.

References are available upon request.

**THE IMPACT OF BRANDS' ONGOING FACEBOOK ACTIVITIES ON FACEBOOK  
USER SEGMENTATION**

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**Keywords:** Facebook User Segmentation, Social Media, Brand Activities, eWOM, Purchase  
Intention

**Description:** This research empirically segments Social Media (SM) users based on their  
perceptions of specific ongoing brand (SM) activities and demographic variables and shows that

the characteristics of the resulting segments differ in their respective impacts on electronic word-of-mouth (eWOM) and purchase intentions.

### **EXTENDED ABSTRACT**

The objective of the current study is to first segment Facebook users based on their perceptions of brands' ongoing Facebook activities (content relevance, personalization, responsiveness, and user empowerment) along with user demographics and social media usage behavior. The resulting segments are then compared in search of differing impacts on electronic word-of-mouth (eWOM) and purchase intention (PI) behaviors. The findings suggest four different Facebook user segments (busy lurkers, selective seekers, active enthusiasts, and hesitators). Each segment exhibits different responses to brands' Facebook activities, and shows unique eWOM and PI behaviors toward the brands. Thus, the current study theoretically and empirically enhances our understanding of how specific Facebook user segments are demographically different and show varying responses to brands' ongoing Facebook activities. The current study also contributes insights into how brands and social media managers can strategically and efficiently manage relationships with identified Facebook user segments.

#### **Research Question**

Can Facebook users be meaningfully segmented based on their perceptions of brands' ongoing Facebook activities and does this segmentation result in differing impacts on eWOM and purchase intentions?

#### **Method and Data**

Using responses from a detailed MTurk survey, self-identified Facebook users are segmented empirically based on their perceptions of brands' ongoing Facebook activities (content relevance,

personalization, responsiveness, and user empowerment) along with user demographics and social media usage behavior. The resulting segments are then compared in search of differing impacts on electronic word-of-mouth (eWOM) and purchase intention (PI) behaviors.

### **Summary of Findings**

The findings suggest four different Facebook user segments (busy lurkers, selective seekers, active enthusiasts, and hesitators). Each segment exhibits different responses to brands' Facebook activities, and shows unique eWOM and PI behaviors toward the brands.

### **Key Contributions**

This research looks beyond SM user motivations and activities and utilizes instead SM users' perceptions of specific ongoing brand SM activities along with demographic variables to develop SM user segments. The four segments identified include busy lurkers, selective seekers, active enthusiasts, and hesitators. The results of this study suggest that these resulting segments have differing views on brand SM activities and their impact on eWOM and PI. Therefore, SM brand managers can utilize this information when planning and implementing their SM activities for specific SM user groups.

## **THE IMPACT OF INFLUENCER MARKETING ON PURCHASE BEHAVIOUR: THE ROLE OF CONGRUENCE**

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**Keywords:** influencer marketing, social media marketing, purchase behaviour, congruence

**Description:** This research suggests that if there is a congruence between an influencer and the follower, the effect between influencer's competence as well as usefulness value and purchase behaviour is stronger.

### **EXTENDED ABSTRACT**

#### **Research Question**

Nowadays, brands often choose social media influencers to promote their products and services. Influencer marketing describes the form of marketing where companies and brands use online personalities to market their products and services to the target audience (Yodel, 2017). Influencers

are defined as “people who built a large network of followers and are regarded as trusted tastemakers in one or several niches” (De Veirman, Cauberghe & Hudders, 2016).

According to Talavera (2015), branded content created by influencers is more organic, authentic, and has a direct contact with customers compared to traditional marketing. However, it is often difficult for brands to choose influencers that share the same values with their target customers. Therefore, congruence between consumer and influencer is imperative in influencer marketing and may indicate whether the influencer will be able to promote products to the target audience in an appealing way.

To contribute to the academic literature this research analyses the role of congruence in the relationship between influencer-generated content and purchase behaviour. The following research **question** is raised:

What is the role of congruence in the relationship between influencer marketing and purchase behaviour?

### **Method And Data**

To explore this question in-depth, the present study defined the concept of influencer marketing as influencer’s content usefulness, influencer’s attractiveness, influencer’s competence, and influencer’s trustworthiness.

A quantitative research method was chosen. This research sample included social media users, particularly – followers of one of the top influencers in Lithuania. Probability sampling method was used.

An online survey was used gather the research data. It was distributed online via Qualtrics platform. The questionnaire consisted of 15 questions and measured influencer’s credibility

(trustworthiness, attractiveness, competence), influencer's content usefulness, congruence, and purchase behaviour.

The online survey started on the Qualtrics platform on the 16<sup>th</sup> of April 2020 and continued until the 19<sup>th</sup> of April 2020.

The empirical research was conducted by performing regression analysis using the SPSS Statistics software.

The regression coefficients were estimated using ordinary least squares method. Regression equations with and without moderators were estimated. The regression equation with moderators has higher adjusted R square (0,398 vs. 0,390 without moderators) and will be used for further analysis. To estimate the moderation effects, the congruence variable was converted into a dichotomous variable (equals 1, if the value of congruence is greater than 3, 0 otherwise).

### **Summary of Findings**

Research reveals that *trustworthiness* has no impact on purchase behaviour neither directly, neither through a moderating effect. *Attractiveness* has no direct impact but has an impact when moderated by congruence. *Competence* and *usefulness* have both direct and moderated impact on purchase behaviour.

*Competence* and *usefulness* have a positive direct impact on purchase behaviour, and this effect is even stronger when respondents feel congruent with the influencer. *Attractiveness* has a positive impact on purchase behaviour only when respondents feel congruent with the influencer.

The negative value of the estimate of the dichotomous variable *congruence* does not change the slope of estimates, but shifts the intercept and, thus, the estimated value of purchase behaviour.

This research suggests that if there is a congruence between an influencer and the follower, the effect between influencer's competence as well as usefulness value and purchase behaviour is



stronger. Therefore, brands should be particularly critical when it comes to the influencer's competence in promoting their products and services and should pay attention to whether influencer's shared content will be perceived as useful.

### **Statement of Key Contributions**

The study contributes to the existing literature on social media and influencer marketing. Besides, the role of congruence has not yet been analysed in the context of influencer marketing, creating a research gap that is covered by the present study.

Moreover, this research provides managerial implications to brands and influencers. Initially, it offers companies and brands knowledge on how they should choose online personalities that can market their products and services. Research also shows that the competence of an influencer has a direct positive impact on purchase behaviour. Thus, we imply that influencers do not need to be competent in all product and service categories, and brands should ensure that their chosen influencer is competent in the eyes of their target audience. Moreover, to purchase the product or service, the audience should perceive the content produced by the influencer as useful. Research reveals that influencers should put effort into creating useful content on social media, given that usefulness of their content has a direct positive impact on purchase behaviour. Finally, the results of this research suggest that if there is a congruence between an influencer and the follower, the effect between competence and usefulness value and purchase behaviour is stronger.

## **The Role of Trust and Perceived Risk in the Acceptance of Digital Voice Assistants – Extended Abstract**

### **Abstract**

A primary challenge regarding the use of digital voice assistants are privacy and safety concerns. The present study addresses these concerns by analyzing users' acceptance and usage intentions regarding digital voice assistants. Digital voice assistants may also provide commercial services, such as price and product comparison, which are analyzed in this study. Integrating perceived privacy and safety risks into the technology acceptance model, the empirical results demonstrate the importance to consider such privacy and safety concerns which form consumers' level of trust before their behavioral intent of using digital voice assistants, in particular for shopping purposes. For an emerging technology, users need to trust to overcome the endogenous and exogenous risks attributed to comparison shopping via digital voice assistants. Considering their high level of automated social presence, digital voice assistants need to establish a relevant level of trust before this technology becomes a dominant mode for comparison shopping.

## **TRUST IF IT'S JUST: THE EFFECTS OF CUSTOMER RATINGS IN PLATFORM MARKETS**

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Keywords: platform, bidirectional rating systems, customer ratings, balance theory, trust

### Description:

Drawing on balance theory, this study investigates how customer ratings, i.e., ratings that customers receive from service providers, affect relationships in platform markets.

## **EXTENDED ABSTRACT**

### **Research Question**

Platforms create value by matching market participants on the demand and supply side and orchestrating their transactions (Hagiu and Wright 2015). To manage the transactions between customers and service providers, platforms such as Uber and Airbnb, employ bidirectional rating systems allowing both customers and service providers to evaluate each other (Dellarocas and Wood 2007). While unidirectional rating systems are widely researched (Gutt et al. 2019), customer ratings as the defining feature of bidirectional rating systems and customers' reactions to these ratings have received scant research attention (Andreassen et al. 2018). Customer ratings refer to platform-specific evaluations submitted by service providers about their experiences with individual customers subsequent to completed transactions. For example, on the ride-hailing platform Uber, drivers rate their passengers and use customer ratings as information when deciding for or against a pickup request (Garud et al. 2020). With our research, we address the following research questions: How do customers react to receiving customer ratings? Specifically, how do customer ratings impact customer attitudes toward a platform and toward a service provider issuing a customer rating?

### **Method and Data**

We conducted two online scenario experiments with a between-subjects design (Study 1: N = 120, Study 2: N = 160). In Study 1, we asked the participants to take on the role of a customer of a fictitious ride-hailing service. After an introduction to the ride-hailing service, we asked the participants to imagine having used the service to take a ride. We described four different scenarios, manipulating both customer behavior and customer ratings as a 2 (customer rating: low vs. high)  $\times$  2 (customer behavior: poor vs. good) factorial design. We then measured

the participants' attitudes toward the ride-hailing platform, their justice perceptions of the customer rating, and their trust in the platform. Finally, we collected socio-demographic information.

Study 2 extends the setup of Study 1 by collecting data from actual Uber customers and employing a pretest-posttest assessment of customer attitudes toward the platform. Before introducing our manipulation, we asked the participants about their general attitude toward Uber and their trust in the platform, followed by a multiround unrelated distraction task. Participants then received a scenario description and the manipulation similar to the setup in Study 1.

### **Summary of Findings**

Across both studies, we find a positive effect of customer ratings on customer attitudes toward the platform. We also observe an interaction effect of customer ratings and customer behavior on levels of distributive justice. Further, we find significant associations between customer perceptions of justice and trust as well as between trust in the platform and attitudes toward the platform. Hence, we observe that the match—or mismatch—of customer behavior and customer ratings affects customer perceptions of justice of a rating, in turn influencing their trust in the platform. Trust then affects customer attitudes toward the platform. We validate our findings across two independent scenario experiments.

We conclude that the effect of customer ratings is not limited to customers' relationships with the service provider awarding the customer rating; customer ratings also affect the relationship between customers and the platform facilitating an interaction. In line with balance theory (Heider 1958), we demonstrate that customer ratings, on the one hand, affect customer relationships with service providers but, on the other hand, also lead to tensions within the

overall relationship system on platforms. Customers seem to resolve these tensions by adjusting their attitude toward the platform.

### **Statement of Key Contributions**

To manage the transactions between customers and service providers, platforms employ bidirectional rating systems in which both customers and service providers evaluate each other after their transaction. While these systems are a common tool to provide transaction partners with feedback on their performance in a transaction, research is lacking on the consequences of ratings given by providers to customers, i.e., customer ratings, for the relationships on platforms. We investigate these consequences and explore how customer ratings affect relationships between customers, platforms, and service providers. In two experiments, we demonstrate that customer ratings influence the relationships between customers and service providers and, through spillover effects, the relationship between customers and the platform. We find that customers process customer ratings through a sequence of justice and trust perceptions, considering whether ratings obtained from service providers match their behavior in a transaction. Our study identifies both the positive and negative consequences of relationship interdependencies on platforms and contributes to the understanding of value creation in triadic platform ecosystems. Our insights urge platform managers to encourage service providers to award fair customer ratings adequately reflecting customer behavior.

*References are available upon request.*

## **TWEETING DOOMSDAY SCENARIOS: ENGAGING CONSUMERS ONLINE DURING THE CORONAVIRUS PANDEMIC**

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Keywords: crisis, covid-19, social media, Twitter, text-mining

Description: Using text mining methods to analyze 112,641 tweets posted during two different time periods of the Covid-19 pandemic, this research explores the impact of three features – valence, length, and inclusion of URL – on consumer decisions to retweet, like, and reply to tweets in order to gain greater understanding of the features that drive consumer engagement during times of crisis.

### **EXTENDED ABSTRACT**

#### **Research Question**

A key challenge during times of crisis is the need to quickly and efficiently engage with consumers to communicate critical information (Guion, Scammon, and Borders 2007). Indeed Scott et al (2020) write that “in the absence of a highly effective cure or vaccine for Covid-19, information and communication are the primary weapons by which societies can combat the virus” (5). Social media is one channel marketers, non-profit organizations, and government entities can use to communicate important information during times of crisis (Muralidharan et al. 2011; Cho and Park 2013; Vis 2013; Sutton et al. 2015). However, in order to do so effectively, they must understand the types of content most likely to be shared and engaged with during these times. In this research, using text mining methods to analyze 112,641 tweets posted during March and April of the 2020 coronavirus pandemic, we explore the impact of three features – valence, length, and inclusion of URL – on consumer decisions to retweet, like, and reply to tweets in order to gain a greater understanding of the features that drive consumer engagement during times of crisis.

#### **Method and Data**

We used Python scripts and the Twitter API to scrape all English-language tweets (58,788) containing the hashtag #coronavirus between March 11 (the day the World Health Organization (WHO) declared the coronavirus a pandemic; Kopecki et al. 2020) until March 23, 2020. Automated text analysis (Humphreys and Wang 2018; Milne, Villarroel-Ordenes, and Kaplan 2019) using Knime Analytics and Python was used to identify sentiments, whether URLs were included, and tweet length. We used a lexicon-based approach which is recommended for sentiment analysis related to opinion-bearing words (Ding, Liu, and Yu 2008). The opinion lexicon dictionary (Hu and Liu 2004) was selected as the data dictionary since it is freely available, was developed specifically for sentiment analysis, includes approximately 6800 words

including misspellings and slang commonly used in social media, and has been used in research using the lexicon-based method to detect sentiment with Twitter (Liu 2012; Souza and Vieira 2012; Mirani and Sasi 2016). Because our dependent variables were counts, negative binomial regression (Hilbe 2011) was used to study the effect of features of tweets on consumer engagement. For each model, the independent variables were the positive and negative components of the sentiment score, length of tweet, and inclusion of URL.

### **Summary of Findings**

Our results show that negative sentiment had a positive effect on the retweet count ( $p < .001$ ), likes ( $p < .001$ ), and replies ( $p < .001$ ). An additional negative word in a tweet was associated with 420% more retweets, 546% more likes, and 146% more replies. However, positive sentiments negatively impacted retweet likelihood ( $p < .001$ ), number of likes ( $p < .001$ ), and replies ( $p < .001$ ). An additional positive word in a tweet was associated with almost 100% fewer retweets, 98% fewer likes, and 95% fewer replies. Additionally, longer posts had 4% more retweets, 1% more likes, and 6% more replies than those including a fewer number of words ( $p$ 's  $< .001$ ). The inclusion of a URL had a non-significantly negative effect on the retweet count ( $p > .1$ ), a significantly negative effect on the number of likes ( $p < .001$ ), and a significantly positive effect ( $p < .05$ ) on the number of replies. Tweets with URLs had 52% fewer likes and 7% more replies than those without URLs.

### **Key Contributions**

These findings contribute to the literature on crisis by identifying factors that enable more effective dissemination of information via social media. They also contribute to the literatures on social media and WOM (e.g., Berger and Milkman 2012; Aleti et al. 2019) by extending this literature into realms where feelings of loss and vulnerability are high and sharing goals may be different. In doing so, we find that well-supported findings in the literature regarding the benefits of positive content and shorter tweets may not hold during crisis. In addition, we contribute to the social media literature by simultaneously considering multiple measures of engagement. In doing so, we help highlight why the prior literature may have observed mixed findings with regard to the effects of URLs on engagement. Finally, our research contributes to the growing literature on how text mining can be used to generate insights into consumer issues (Mankad et al. 2016). By exploring features of tweets that led to greater engagement during the coronavirus pandemic, we gained a new understanding of how emotion and sharing goals can impact engagement and identified boundary conditions for existing findings in the literature.

References are available upon request



## **User-generated content, service failure and recovery strategies in the fashion industry: the need for a hybrid approach**

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**KEY WORDS:** user-generated content, service failure, phenomenological hermeneutics, social influence theory, actor network theory, fashion industry

### **DESCRIPTION**

This study proposes a framework that characterises customers into four main streams: forgivers, avengers, mass crowders and disregarders. Our study has important managerial implications for brand managers and offers critical insights into customers' responses in the fashion industry.

### **EXTENDED ABSTRACT**

#### **RESEARCH QUESTION**

There is much evidence that user-generated content (UGC) may lead to effective recovery efforts (Hewett, Rand, Rust, & van Heerde, 2016; McQuarrie, Miller, & Phillips, 2012) and firm-generated content (FGC) has been posited as an important mediator in service recovery processes. Several researchers have studied the significance of technology platforms that

enable UGC or allow customers to use content provided by the firm (Eigenraam, Eelen, Van Lin, & Verlegh, 2018; Wang, Yang, & Ding, 2019). Others have looked at the integration of UGC and FGC into marketing communication strategies (Hewett et al., 2016; Kumar, Bezawada, Rishika, Janakiraman, & Kannan, 2016) whilst some authors have studied customers' genesis stories in the context of brands. The latter are a form of UGC that have been described as authentic accounts of customer motivations and experiences with specific brands (Wang, Noble, Dahl, & Park, 2019). Research has illuminated the benefits of traditional online marketing information, such as product reviews, that influence search and product choice. Sales and viewership have also been the subject of analysis (Chevalier & Mayzlin, 2006; Godes & Mayzlin, 2004). Our research objective is to understand how and to what extent UGC creation influences the efficiency and speed of service recovery efforts. Specifically, we have set out to examine how customer-to-customer interactions, millennials' interactions in particular, impact recovery efforts.

## **METHODS AND DATA**

To fully investigate and understand the data, this study utilises a phenomenological hermeneutics methodology. "Interpretation is grounded in something we have in advance, ... understanding operates in ... an involvement whole that is already understood and grounded in something we see in advance – foresight' (Heidegger, 1962/2004, p. 191). We adopted an exploratory, multiple, and holistic case study design. The case study design allows researchers to examine a phenomenon situated in a specific context (Hancock & Algozzine, 2017) meaning it is possible to develop an in-depth understanding of a specific case. The case study explores situations, allowing researchers to consider different outcomes (Yin, 2014) and to explore a phenomenon using a variety of data sources to draw out multiple sides of the phenomenon (Baxter & Jack, 2008). The study is limited to a single case but explores multiple groups of

individuals. Based on a holistic approach, the study provides results that are generalised, thus limiting the number of variables. However, it reflects the perspective of several units (millennials) from three countries, and their perspectives of service failure in the online fashion industry. We chose participants based on professional contacts to identify cases that met our sampling requirements (i.e. millennials between 18 and 39 years of age). A total of 100 individuals were invited to participate in the study from three countries (France, Italy and the UK). Of these, 60 individuals accepted invitations and participated in the study.

### **SUMMARY OF FINDINGS**

This study further develops the conceptualisation of customer responses to service failures and provides a set of practical insights that brand managers can employ to reduce customer dissatisfaction with service failures. The study characterises customers based on the level of severity they perceive in relation to service failure and based on their level of UGC activity through social media.

### **SUMMARY OF KEY FINDINGS**

The overall of the current study is to increase our understanding of the complex and varied mechanisms of UGC influence, both conceptually and empirically in the recovery efforts. This study further develops the conceptualisation of customer responses to service failures and provides a set of practical insights that brand managers can employ to reduce customer dissatisfaction with service failures. The study characterises customers based on the level of severity they perceive in relation to service failure and based on their level of UGC activity through social media. From these groupings, the study identifies four key customer types: forgivers, avengers, mass-crowders and disregarders. Forgivers have a strong emotional attachment with the brand that causes them to focus on positive outcomes (Stokburger-Sauer et al., 2012). This reduces their motivation to engage with negative UGC. In contrast, mass-

crowders are novice customers and their inexperience makes them more reliant on other customers. Forgivers can endorse the ability of brands to manage service failures which may influence mass-crowders' perspectives of the brand, potentially motivating them to become loyal customers in the long term.

In contrast, avengers, as with forgivers, are highly self-focused in their behaviour which makes them less affected by the attempted persuasion of others (Chang & Hung, 2018). This means that the influence of forgivers will be less effective towards avengers. Avengers expect active solutions from providers that meet their expectations (Habel, Alavi, & Pick, 2017) and will probably analyse the effectiveness of service recovery strategies based on how they were treated throughout the process (Septianto et al., 2020). This group will have the highest motivation to share negative WOM through UGC, which, depending on its severity, is likely to attract mass attention through social media (Esmark-Jones et al., 2018).

Avengers can indirectly influence a disregarder's perception of the brand regarding service failures. Some disregarders may forgive service failures but others may choose to forget the failure based on the perception that the provider cannot or will not provide solutions, leading their relationship with the brand to be based primarily on the monetary benefits they receive (Gebauer, Füller, & Pezzeri, 2013). However, like avengers, disregarders' attention is focused on the actions delivered by the provider itself. If disregarders observe online messages exchanged between providers and avenger customers, it is possible that disregarders' perceptions may change based on the provider's willingness to help customers (Ibrahim et al., 2017); the online exchange of messages provides evidence of the provider's efficiency in managing service failures.

**References available on request**

**USER-GENERATED SERVICE ENGAGEMENT VOLUME IN ONLINE  
COMMUNITIES: THE MODERATING ROLE OF FIRM INVOLVEMENT**

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**Keywords:** User-generated content, services, social media, word of mouth, valence

**Description:** We study an emerging form of user-generated content: user-generated service, the venues it occurs on, and its importance to firms, using a multi-method approach with data gathered from firm-owned and firm-unowned online environments.

## **EXTENDED ABSTRACT**

### **Research Question**

While existing customer engagement (CE) frameworks have emphasized the importance of service cocreation as a core CE tenet, very little research attention has been devoted to collaborative online service platforms (Brodie et al. 2011). Relatedly, although the online forum environments that typically provide the empirical settings for studies of communal service delivery can exist on both firm-owned and firm-unowned platforms, existing work has examined one platform at a time. Furthermore, evidence from prior research assessing the impact of firm involvement on user-generated content creation outside of the domain of service is also inconsistent.

The mixed evidence regarding what the role of the firm should be in user-generated service-focused communities is not satisfactory in advancing knowledge about how firms can foster UGSE. Specifically, several questions are worth examining. What is the impact of a firm's ownership of an online service-focused community's platform on UGSE volume? Do a firm's employees' contributions to user-generated service conversations lead to greater engagement? Is information on firm-owned or firm-unowned platforms evaluated differently by consumers? Do these platform differences contribute to other forms of customer engagement beyond UGSE volume?

### **Method and Data**

The study uses both experimental and secondary data. A two-by-two experiment with 195 participants from an online subject pool examined how participants viewed the focal firm, the online forum environment, and other community members. The empirical settings for the

secondary data are eight online forums of four firms operating in three industries. Each firm has both a firm-owned forum (on its website) and a third-party firm-unowned forum on Reddit, a popular social news discussion website. The unit of analysis for the study is a service-seeking post on an online forum.

To gather firm-unowned forum data, we used Google BigQuery: a data warehouse allowing users to create download data using SQL queries from subforums on Reddit. To gather data from firm-owned forums, we used a Web crawler to compile, download, and parse a list of forum webpages with relevant data, including the user who created each topic, the post's content, and the date of the post.

We examined the number of comments by users on posted topics created by other users on online forums who sought service-related guidance. We also examined whether firm employees commented on any of the user-submitted topics. In total, we analyzed over 59,000 service-seeking posts.

### **Summary of Findings**

Our analysis of secondary data reveals the following insights. On average, service-seeking posts of the same post valence receive 23.5% less UGSE volume on firm-owned platforms. Similarly, service-seeking posts that contain anger and those that contain anxiety receive 12% and 9.2% fewer comments on firm-owned platforms than on firm-unowned platforms, respectively. With regards to employee participation, on average, 4.3% fewer comments are contributed to service-seeking posts that contain anxiety when the first commenter is a firm employee.

Holding post valence constant amongst posts in which a firm employee is the first commenter, firm-owned forum posts have higher UGSE volume than firm-unowned forum posts. Similarly, for service-seeking posts containing anger whose first comment received is one from a firm employee, there is significantly more UGSE volume on firm-owned forums than on firm-unowned forums. Furthermore, anxious service-seeking posts that receive their first comment from a firm employee receive significantly more engagement on firm-owned platforms.

We now turn to briefly summarizing selected results from our experiment. Participants reported they would be more likely to recommend the forum, rated the product-related knowledge of the forum members more highly, and found the forum's information more helpful in the firm-unowned forum condition.

### **Summary of Key Contributions**

First, this study demonstrates how user-generated service engagement volume is lower on firm-owned platforms. In other words, firm platform ownership lessens the impact of customer sentiment, anger, and anxiety that otherwise increase UGSE volume. This finding is significant for managers tasked with increasing engagement, as past research has described CE efforts as generally more effective on firm-owned platforms.

Second, we find evidence that firm employee participation on service-seeking posts is associated with lower UGSE on posts that contain anxiety. Specifically, while service-seeking posts containing words indicating customer anxiety receive more UGSE overall, when an employee of the focal firm comments first on the post, UGSE volume is lower. This finding is instructive to firms that believe that employee participation always increases engagement.



Third, we find that even non-members of online communities exhibit more positive engagement-related intentions when evaluating UGS interactions on firm-unowned forums. Specifically, participants were more likely to recommend and return to a forum when the focal firm did not own the platform, rating the helpfulness of the forum's information and the product-related knowledge of its members more favorably. Importantly, consumers seem to attribute the credit for service-related assistance to the forum and not the focal firm.

## **VOICE APPS IN VOICE COMMERCE: THE IMPACT OF HUMANNESS ON PARASOCIAL INTERACTION AND RELATIONSHIP QUALITY**

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**Keywords:** voice assistant, voice commerce, social response theory, social cue, humanlike design

**Description:** This research examines the impact of more humanlike design in voice apps on parasocial interaction and relationship quality in voice commerce.

### **EXTENDED ABSTRACT**

#### **Research Question**

Recent years have seen rapid growth in the popularity of voice assistants, enabling companies to develop their own voice apps and establish voice commerce as an additional sales channel. Within such apps, firms can create a virtual voice agent (VVA) that allows them to enter into an online sales dialogue with customers using natural spoken language. Despite its manifold advantages, voice commerce still faces the familiar challenges that afflict online shopping and technology adoption: Customers are generally uncomfortable with the interaction and have difficulties establishing satisfying relationships with voice apps, leading them to use voice commerce only sporadically. This study explores how these obstacles could be mitigated.

A machine possessing humanlike design features, referred to as social cues, can foster more humanlike and social interactions with users (Nass and Moon 2000; Nass, Steuer, and Tauber 1994). Accordingly, implementing such features in VVAs might enable them to be socially present in interactions and build social relationships with customers in voice commerce.

Therefore, we pose the following research question:

RQ: To what extent do more humanlike design features in VVAs promote parasocial interaction and thus enhance the customer–VVA relationship in voice commerce?

### **Method and Data**

To answer this question, we conducted a laboratory experiment with 323 participants, applying a between-subjects design with two versions of a VVA. These versions were identical (e.g., in terms of dialogue flow) except that the treatment condition included a combined set of verbal, auditory, and invisible social cues. To carry out the experiment, we built the VVAs using Amazon’s Alexa developer platform. Participants were randomly assigned to one of the two conditions and were tasked to order a specific book in real-time via VVA. By manipulating the independent variable, coding a high level of humanness as 1 and a low level as 0, we also successfully ascertained whether the differences in human perception are valid. We tested the research model using PLS-SEM via SmartPLS 3.2.9 software and a bootstrap resampling method with 5,000 samples (Ringle, Wende, and Becker 2015).

### **Summary of Findings**

To determine what might help overcome barriers to voice commerce, we investigated the effects of humanizing a voice app by implementing various humanlike design features. The data suggests that a stronger integration of such features boosts the customer’s perception of social interaction and quality of relationship with the voice app. Nevertheless, our analysis indicates that humanizing voice apps can also elaborate negative effects. Overall, rendering the human–machine dialogue more natural could still be the key to a broad acceptance of voice commerce.

### **Key Contributions**

Our study offers a threefold contribution: *First*, we empirically extend knowledge on the impact of humanness in interaction with voice assistants. Various scholars have called for such research (e.g., Gnewuch et al. 2018; Seeger, Pfeiffer, and Heinzl 2018), as until recently, a conversation between human and machine with voice as the input and output was impossible. In this regard, we demonstrate that including more social cues leads to greater perceptions of humanness in a VVA. Achieving this state has an overall positive impact on interaction; customers tend to regard such voice apps as more socially present. *Second*, our

study contributes to literature on relationship marketing by demonstrating that perceiving social presence and parasocial interaction in voice commerce improves relationship quality. *Third*, our results offer important implications for companies and their design of voice apps. We suggest that voice app designers should implement various social cues with the goal of rendering VVAs more humanlike. Despite our analysis revealing that more humanness can also induce certain negative effects, the extensive use of humanlike design features can have overall positive effects on the user's social perception of interaction and spark a budding relationship with the voice app.

References are available on request.

**VOTER ENGAGEMENT: INSTAGRAM CONTENT STRATEGY AND THE 2020 PRESIDENTIAL PRIMARY ELECTION**

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**Keywords:** Instagram, social media, content analysis, political marketing, engagement

**Description:** Utilizing a quantitative content analysis, we determine the most common types of political communication Instagram posts used in the 2020 Presidential Primary as well as what type of posts receive the most and least engagement.

**EXTENDED ABSTRACT****Research Question:**

Social media platforms, such as Instagram, can be an effective political marketing tool. Without question, Instagram has become an essential visual communication vehicle that could facilitate connections between a candidate and potential voters. Like traditional brands, political candidates desire post engagement (i.e., likes, comments, and shares). Therefore, understanding the types of posts that can enhance engagement is essential. Researchers have explored content strategy leading to engagement for traditional brands, yet, this question has gone unexplored in political marketing communication. Political communication researchers have also not applied existing content typologies to social media political content. This article analyzes how five 2020 U.S. presidential primary candidates communicated on Instagram from December to February 2020. Using a typology adapted from Tafesse and Wien (2018), we identify three broad message strategies (Informational, Transformational, and Interactional) and eleven types of content most frequently used by politicians on Instagram. Furthermore, we answer the question of what types of content drive the most and least amount of engagement. We anticipate that Transformational message strategies will elicit a higher level of engagement than content using Informational and Interactional message strategies. Interactional message strategies will garner a higher level of engagement than content using Informational messages.

**Method and Data:**

A content analysis was conducted of December, January, and February 2020 of Instagram posts for the four remaining Democratic 2020 presidential candidates (i.e., Biden, Gabbard, Sanders, and Warren) and the incumbent Republican candidate (President Trump). In our study, the unit of analysis is one Instagram post. For each unit of analysis, the post data and metrics, particularly the date of the post, Instagram post website address, number of video views, number of likes, number of comments, and date of entry, were manually entered into a spreadsheet for each candidate. Adapting Tafesse and Wien's (2018) categories for political communication, we determine post typology as the following: Informational (platform and education), Transformational (emotional, brand resonance, experiential, and social issues), and Interactional (current event, personal, brand community, voter relation, and mobilizing). Mobilization was the

only new sub-category added. An Instagram post could be coded as one or two types. If there were potentially three different types, coders selected the two primary types. Training sessions were conducted with two independent coders. When sufficient inter-rater reliability was achieved, one researcher coded the entire data set, whereas the other coded 10%. In total, 2,388 Instagram posts (images and videos) and accompanying captions were analyzed.

### **Summary of Findings:**

Warren and Sanders were the most prolific posters, followed by Gabbard, Trump, and Biden. Across all candidates, the most popular message strategy was Interactional (44.2%), followed by Transformational (37.4%), and Informational (18.4%). A majority of the posts were coded as having multiple types (60.5%), and approximately a third of posts were videos. Overall, the Informational message strategy was the least popular of the posts. Transformation and Interactional proved to vary in popularity with specific candidates. Pearson Chi-Square test revealed a significant association between candidates and general message strategy. In addressing engagement, an ANCOVA test with fanbase (number of followers) as the covariate was estimated. Current Events had the largest number of likes, followed by Education. Mobilization and Platform garnered the least popularity. Regarding comments, Personal was the most popular, followed by Current Events and Education. The least commented on post type was Platform and Social Issues. Lastly, the most popular type of video was Experiential, followed by Emotional and Education. In contrast, the least popular was Personal and Mobilization. Hypothesis testing revealed that there is no main effect for general message strategy and mixed support for predicted engagement relationships with personal and emotional posts.

### **Statement of Key Contributions:**

While previous scholars have applied communication typologies to social media content, our study is the first to apply a social media-based typology to political Instagram posts, specifically exploring its relationship with consumer engagement. We find that the candidates varied in their Instagram use and strategy with interactional messages (i.e., current events, personal, and mobilizing posts) posted more than transformational (i.e., emotional, experiential, and social issue posts) and informational messages. In analyzing individual candidate posts – there were several notable typology differences. These differences readily reinforced the candidates' general campaign messaging. Hypothesis testing revealed that general messaging strategies of informational, transformational, and interactional were not significantly different; however, specific differences were found when comparing specific category types. Overall, consumers most readily responded with likes to current events posts followed by education. Consumers also seem to “like” brand resonance, experiential, and personal posts. Personal and emotional posts' predicted relationship with engagement proved to be mixed. Emotional posts may not have elicited more engagement because the posts' emotional valence was not robust. Personal posts' inferior engagement performance compared to educational posts suggests that viewers might be less interested in a candidate's “behind the scenes” life and are viewing Instagram more as a campaign news source.

**TITLE**

When Gamification Backfires: How the Vividness Will Affect the Perceived Playfulness and Consumer Attitude without Encouraging Information Exploration

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**Keywords:** Vividness, playfulness, gamification, cognitive load theory

**Description:** We demonstrated when and why vivid information presentation would result in negative customer attitudes.

## **EXTENDED ABSTRACT**

### **Research Question**

New emerging display technologies bring distinctive experience to our lives (e.g., try new clothes via AR mirror at home). Researchers have attributed the popularity of these technologies to enhanced vividness, the sensory experience of actual objects (Steuer 1992; Yim et al. 2017), because vividness provides more abundant, sensory cues, facilitates mental envision of product usage, and thus leads to a more favorable consumer attitude (game-like advertisement, Müller-Stewens et al. 2017; augmented reality environment, Yim et al. 2017). Thus, the vivid information presentation could be beneficial for the new product advantage exploration.

However, we argue that this positive vividness-attitude relationship could be reversed in other contexts. Task- orientated context focus on rationality and efficiency (Scarpi 2012). To enhance efficiency, individuals are more likely to pay attention to relevant information and sensory information may be perceived as noise that individuals need additional efforts to filter it out. According to cognitive load theory, high level of vividness would eventually become a cognitive burden as it exhausts cognitive resources for information processing (Mayer and Moreno 2003), distract our focus and make people frustrated (Mayer 2011). Thus, we predicted that the higher degree of vividness can decrease consumers' attitudes (H1).



## **Method and Data**

We conducted an experiment by manipulating the level of vividness across two contexts that did not encourage new information exploration (a data construction task and an online service testing assignment). Forty-six students were recruited in a 2 (vividness: high vs low) x 2 (task framing: online service experiencing/ data construction) between-subject design. For high vividness levels, participants used Google Street View from a first-person perspective. For the low vividness level, subjects directly looked at the 2D map. Third, we measured pre- and post-experiment brand attitudes, perceived vividness and personal information. We also measure playfulness, the perception of the experience as work or fun (Mathwick, Malhotra, and Rigdon 2001) as a mediator of vividness-attitude relationship. In fact, pervious works on the effect of vividness also documented that the perceived playfulness (e.g., Siemens et al. 2015; Yim et al. 2017) played a role as the mechanism underlying the vividness-attitude relation due to the fun and enjoyment elicited by mental play and imagination process. This research also hypothesized that playfulness should be the mediator between vividness and consumer attitude, but distinct from the previous studies, we hypothesized that higher vividness would lead to lower perceived playfulness, and in turn, generate negative consumer attitude (H2).

## **Summary of Findings**

The independent sample t-test shows the manipulation of vividness was successful ( $M_{\text{high vividness}}=5.387, M_{\text{low vividness}}=4.635, t(38.347)=-2.845, p<0.05$ ). Then, we conducted a path analysis with bootstrapping for estimating mediation (SPSS PROCESS, Model 4; vividness as the independent variable, playfulness as the mediator, attitude change as the dependent variable, and gender, age and task framing as control variables). As predicted, we found that higher vividness decreased playfulness ( $a: -1.102, p < 0.05$ ). Further, higher playfulness increased positive attitude change toward the google map ( $b: 0.201, p < 0.001$ ) and the 95% confidence interval indicated the direct effect of vividness on attitude change was insignificant (direct effect  $(c): 0.222, SE: 0.186; 95\% CI: [-0.154, 0.598]$ ) whereas the indirect effect of vividness on attitude change was significant (indirect effect:  $-0.221, SE: 0.132; 95\% CI: [-0.528, -0.050]$ ), consistent with H2.

### **Key Contributions**

Based on the cognitive loading theory, this research argues and reveals that the greater vividness could be harmful to generate playful experience out of the new product exploration context, and in turn, could lead to unfavorable consumer attitudes.

This research provides two main contributions to existing literature. First, we found a reversal of vividness effect. Vividness used as a gamification tool should be considered individually rather than collectively with other factors. Current research shows that vividness

is effective in new product innovation, but not necessarily in routine consumption processes.

Our findings hope to inspire future research in testing vividness in more fitting settings.

Second, this study adopts the perspective of cognitive load theory to accurately predict a negative vividness-attitude relationship rather than a positive relationship suggested by past gamification studies based on flow theory (e.g., Hoffman and Novak 1996; Yim et al. 2017).

Based on this result, this research intends to initiate a discussion regarding the relationship between cognitive load and flow experience, which is critical for building up the theoretical foundation for gamification studies.

# **Customer Insights from Data Analytics, AI and Machine Learning**

**AN ANALYSIS OF THE IMPACT OF BUSINESS ANALYTICS ON  
INNOVATION**

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**Keywords:** Business Analytics, big data, innovation, Pakistan

**Description:** Big Data

**EXTENDED ABSTRACT:**

**Research Question**

There has been seen an increasing trend in Big Data and Business Analytics (BA), which is providing extraordinary opportunities to business for innovation. The BA is extending modern and unprecedented insights, which is helping the organizations in developing new products and services and improving the existing ones. Nonetheless, little research has been conducted for analyzing the impact of BA, which is contributing to the success of innovation. This study aimed at filling the gap.

**Method and Data**

The proposed research model was validated by collecting the data from Pakistani companies. For data collection, questionnaires were distributed. Out of 350 only 316 responses were used for data analysis.

**Summary of Findings**

The findings supported the model of the research, which is providing the perspective that BA is contributing to innovation. The significant results showed that BA is improving the

environment scanning, which is helping in increasing the innovation of the company. Conversely, the impact showed an increasing trend when it is mediated by data-driven culture. The data-driven culture is directly impacting innovation of new product, and its indirect impact is on the meaningfulness of the product by environment scanning. The results also supported that environmental scanning is contributing to the innovation of new product and its significance which increase competitive advantage. The innovation is affected by different factors which are addressed along with BA.

### **Key Contributions**

The current research is contributing to the literature as well. The previous research studies stressed that BA is helping the organization in innovation, even this is not providing empirical evidence and theoretical insight. However, the current research attempts to fill the gap by analyzing the impact of business analytics on innovation. This is done by linking the BA and data-driven culture and environment scanning, and an indirect link is established innovation

**“References are available upon request.”**

## **MACHINE LEARNING IN MARKETING: A SYSTEMATIC LITERATURE AND TEXT MINING RESEARCH**

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**Keywords:** Artificial intelligence, machine learning, text mining, literature review

**Description:** This study presents the structure and orientation of current research on machine learning in the marketing discipline and serves as a framework for further research.

### **EXTENDED ABSTRACT**

#### **Research Question**

Discussions around artificial intelligence (AI) have gained increasing prominence in marketing theory and practice in the past years. AI can refer to a large number of different theories and applications (e.g., reasoning, learning, computer vision). A prominent substream within the discussion of AI is machine learning (ML). Supervised, unsupervised, and reinforcement learning has received a great deal of attention within the current revival of AI in theory and practice (Athey and Imbens 2019). The increasing availability of data due to digital touchpoints, online shops, social media, and the Internet of Things has driven the development of algorithms that can detect patterns, classify data, and develop complex causal models for relevant marketing decisions (Kaplan and Haenlein 2019). Therefore, the current state of marketing research with respect to AI and ML is rich with ideas. Unfortunately, this research stream has a weak structure, and a systematic review of extant literature in the research field is missing. With respect to this gap, this study aims to answer the following research questions:

- (1) How is the body of knowledge structured with respect to the application of ML in marketing research?
- (2) Which ML concepts and typical marketing topics are considered in current research?

### **Method and Data**

The methodology used herein adopts a mix of well-established approaches for structured literature reviews (Webster and Watson 2002) and data-based text-mining procedures (Aggarwal and Zhai 2012). Therefore, the process is divided in three main stages: (1) database search and data integration, (2) data (text) mining and clustering, and (3) data interpretation. The first phase resulted in 891 articles extracted from three academic databases. The database search considered peer-reviewed articles published between 2010 and 2020 with the following search string in the title: “artificial intelligence” OR “machine learning” AND “marketing”. In phase two, a text mining approach (Bozkurt et al. 2020) was used to identify the most relevant articles for full text reading and to structure them in main six research directions. As a cluster structure, we adopted the 4p marketing mix extended by the dimensions performance and AI/ML. In phase three, most relevant articles of each cluster were considered for a content-related analysis and full-text reading. To define these articles, we measured how often each word in the cluster-specific wordlists appeared in each abstract. A total of 90 articles were read. Subsequently, the feedback loop from the full content analysis led to a reduction of relevant articles in each cluster.

### **Summary of Findings**

The results indicate that current research using ML in marketing can be structured into six clusters. The overall ranking result is as follows: AI/ML, promotion, product, performance, place, price. In terms of AI and ML methods, the vast majority of research deals with supervised ML (e.g., regression and classification models). However, reinforcement learning is not present in current marketing research. The most important marketing domain for the application of ML



methods is promotion (communication), followed by product, place, and price. This is due to the rise of social media channels and the availability of customer data. Accordingly, typical performance dimensions of ML approaches in marketing include content quality, conversion, and click-through optimization. The application of ML methods in the domain of product is represented in the entire product life cycle. In the domain place, ML is often used to automate human workflow and to generate customized product recommendations. Surprisingly, only a few studies include the application of ML in the area of pricing. However, prominent applications of ML in the pricing domain are e.g. what-if simulations and dynamic pricing.

### **Key Contributions**

The contribution of this study captures methodical, theoretical, and practical aspects. The combination of text mining and traditional full-text reading unpacks the pros and cons of both methods. Text mining allows the integration of a large amount of data with minimal time requirements for data processing. Full text reading is still relevant for in-depth analysis, error detection, and correction. Scholars might adopt such hybrid approaches for structured literature reviews in other domains. With respect to theory, the presented results indicate that current research using ML in marketing can be structured into six clusters. As a theoretical contribution, this analysis aggregates the current state of ML applications in marketing and provides insights into further research directions. Scholars might adopt the illustrated pathways of current research or focus on new applications of ML in marketing. The presented overview also offers contributions to marketing practitioners interested in ideas for practical applications of ML in their marketing environment. Therefore, the findings of this research provide an overview for practitioners with respect to different areas of application for ML in marketing. This also offers opportunities for selective implementations of ML in specific marketing departments.

*References are available upon request.*

## **RETAINING CUSTOMERS: HOW ARTIFICIAL INTELLIGENCE CAN REDUCE CUSTOMER CHURN**

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**Keywords:** *customer churn, artificial intelligence, automated feature engineering, churn prediction*

**Description:** *Using Ki's AI-driven consumer analytics platform, this research shows consumer segments to be targeted for churn management.*

### **EXTENDED ABSTRACT**

#### **RESEARCH QUESTION**

Customer retention is a major issue for companies. There is compelling evidence that attracting a new customer would cost five times more than keeping one current customer (Saubert 2009). Numerous models were developed to predict customer churn. Decision trees and logistic regressions are two most well-known models. A newly developed algorithm is the logit leaf model (De Caigny, Coussement, and De Bock 2018). However, these models still pose limitations in efficiently predicting churn levels.

Artificial intelligence (AI) is useful to marketers who want to improve the effectiveness of their sales and marketing strategies. AI can be described as a system of technology that attempts to imitate human intelligence. Marketing is definitely a field that has made great strides in the field of AI with the advances in technology each day. AI relies on information from a customer base or information regarding past customer feedback. Due to the advancements in technology, these systems are able to gather the necessary information about a company's product and the customer base in order to craft better advertisements and use this information to place a product or service in front of the customer. AI implies solutions for marketers to effectively and efficiently solve complicated problems in promotions and advertisements, consumer search, product recommendations, and pricing and assortment (Katsov 2017). Based on advances in machine learning and technologies, AI has the ability to forecast trends, market share and behavior of consumers.

One of the most critical questions for marketers is how to retain existing consumers in a more efficient and effective way than traditional models. Churn is a customer switching from the company to another company within the same industry. A way of handling customer churn is to anticipate which customers are more likely to stop shopping, and then seek opportunities to encourage those customers to remain (Neslin, Gupta, Kamakura, Lu, and Mason 2018). The theory of market segmentation (Smith 1956) is useful to understand the process of churn management. Instead of constructing models on the entire dataset, developing models that classify consumers into homogeneous groups offer a more costly-effective and convenient process to manage customer churn. However, it is challenging for marketers to precisely indicate the segments that are most profitable to target to reduce churn levels without investing much time and budget. Sophisticated marketing plans such as targeting customers with high churn rates are made up of complex algorithms with predictive abilities through AI. The goal of this research is to understand how AI is utilized in customer churn management. It tackles churn problems of a retailer by identifying customer segments where the company can effectively reduce churn rates by implementing AI.

## **METHOD AND DATA**

Ki's AI-driven automated feature engineering (AFE) was adopted to analyze data and indicate strategies to minimize churn rates. Ki is a consumer analytics platform developed by Keyence. The technology generates hypotheses from data and ranks them using AI. Sales and marketing data retrieved from 2017-2018 were used. The data file indicated 4998 retail customers with 66% females and 34% males. The average age of the customers was 35.85 years old.

## **SUMMARY OF FINDINGS**

Ki's data analytics platform was used to identify consumer groups that were at risk of churn. The confidence rate based on the ROC-AUC curve was 0.87 from scale 0 to 1. These high rates indicate the capability of the model distinguishing between classes. That is, the platform successfully distinguished customers who are likely to continue shopping at the retail company from those who are expected to stop shopping there. Ki suggested 30 different segments in which levels of churn may be minimized. Types of segments include customers with 769 or fewer outstanding rewards points; those without morning online purchases; those who shopped once or zero for the clothing category; those who did not buy for 260 days or more after the last selling date; those who spent \$7,799 or less; those who viewed a video once or zero during the last 30 days; those who purchased once or less at night; and sold price below \$820. Ki ranked these 30 segments based on each expected effect, suggesting varying predicted churn rates that could be reduced by 7.3 percent up to 29 percent. These segment examples listed above are arranged from the highest expected effect to the lowest one. The average expected churn rate was 44 percent across these segments.

Forty percent of the customers who had 769 or fewer remaining rewards points were presented as the most desirable sector in which the company could minimize the largest churn rates from 75 percent to 46 percent or lower. The simulation showed that these results could be achieved through the combination of different

marketing efforts to reduce 29 percent of churn among the segment. Ki's simulation methods suggested numerous ways to minimize the levels of churn. For example, one strategy is to offer 200-250 bonus points when consumers shop between six in the morning and noon. This strategy should be repeated to increase shopping frequencies during the time range. The company may also offer bonus points for those who have bought apparel products. This should be repeated as well to increase the number of purchases. In the same manner, the company can select a different segment and run different sets of simulations to indicate what works best considering its resources and marketing budgets.

When combined with other social science research and advances, consumer behavior analysis can be extremely valuable to many businesses, many of which are considering the use of AI. The most useful feature of the AFE process is churn simulations in which marketers can predict churn effects from the combination of best customer segments. When the data include company size, revenue, marketing budgets, customer lifetime values, and other key details, Ki strengthens the ability to deliver retention strategies that support the company's target and budget. This advanced technique enables companies to understand their customers in ways they could not previously, while at the same time identifying a more effective marketing strategy.

## **KEY CONTRIBUTIONS**

Customer churn is a challenge for businesses. Companies can earn greater profits from existing customers than from new customers. Given the significant cost of losing clients, businesses are actively engaged in marketing practices to retain the customers who are more likely to churn. Churn prediction and management are relevant topics in the academic sector as it is directly linked to competitiveness and profitability of a company. Numerous models have been developed to forecast customer churn. Two of the most common models for churn prediction are decision trees and logistic regression. The logit leaf model is an improved model that supports the classification of data. However, the process of predicting

churn requires a more efficient model that provides a timely indication of homogeneous consumer groups in terms of cost savings and the effects of churn levels. Using AFE process of Ki's data analytics platform, the research introduces an advanced method for customer churn management. It aims to identify consumer segments that are more likely to churn and rank them on the basis of the churn effect of each segment. In each category, marketers can see the impact of adjusting marketing strategies (e.g., the number of emails that customers at risk of churn will receive during a week) on churn rates. This method enables marketers to evaluate any variables that have been reported at various marketing and sales points over a particular period of time. Examples include, but are not limited to, the remaining reward points, the time of purchase, transaction information, and the number of promotional videos their customers have watched. The AFE approach has important consequences for all B2B and B2C companies (e.g., retailers, telecommunications, banks, suppliers) that require complex business processes with a more effective AI-driven marketing framework than conventional techniques.

## **REFERENCES**

References are available upon request.

## **THE DESIGN OF AN ARTIFICIAL GENERAL MARKETING INTELLIGENCE (AGMI)**

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### **Abstract**

In the age of AI, marketing needs to transcend into the essential role of relating the firm to its wider environment. Thus, ensuring the viability of the firm in a globally interconnected global environment. We established the essential role of intelligence and define it in a marketing logic, which is beyond computation. We call this dimension of intelligence to be interactional as marketers navigate the firm within a complex environment. We highlight the essential role of structure for marketing organizations and propose a model-based management methodology of aligning all the essential spheres of the firm within the necessary logical triad of the structural dynamics of the organization. We conclude by proposing a marketing definition of AI and design for a model of alignment of traditional marketing with AI that delivers many promising possibilities, where marketing could become the foundation for coping with the complexity of a large amount of market data and creating patterns to recognize weak-signals avant la lettre hidden within the large volume of unstructured data that is on an exponential rise.

**Keywords:** Artificial intelligence, artificial general marketing intelligence, marketing theory, model-based management

### **Statement of Key Contributions**

In the contemporary era of globalization driven by hyper-connectivity and AI, marketing theory needs to develop its own interpretation of what intelligence means and how to integrate AI into

a marketing logic. We distinguish between making profits in the short-run and the long-term homeostasis of the firm. Therefore, we highlight the role of structure in the marketing organization. We define intelligence from a marketing lens and suggest for an MBM-methodology, whereupon a 3-ply model of the logical layer of a successful marketing organization is designed. We see the viability of firms based on good marketing that considers the designing a solid operational layer (body), a strategic framework of thinking (brain) and a normative sphere that defines (philosophy) that looks beyond the myopic view of the market and towards maintaining the firm's legitimacy in the wider environment. Our designed framework of AI coined as artificial general marketing intelligence (AGMI) is holistic and understands the nature of rising data to be unstructured and that absorbing data requires as defined above a solid organizational structure that has that capacity of absorbing data in the right manner and within the right channel. Marketing professionals from the academe and practice require a marketing framework that gives them a robust model, whereupon they can cope with the diverse challenges of the contemporary rate of complex and globally interconnected market reality. The path of intelligent behaviour from a marketing lens is promising, whereupon the AGMI model can be put into a solid application, thus, to be tested as a powerful diagnostic tool for marketing, thriving in a changing environment. By aligning the fields of traditional marketing and AI we have designed an approach, how this can be brought into a cohesive whole within the structural dynamics of an intelligent marketing organization.

## **Introduction**

In essence, marketing relates the firm to its environment in a way that the firm preserves its long-term viability. While the notion of making profits is pivotal to good marketing, however, we take marketing as a field that unifies all the essential layers of the firm based on a holistic and multi-decadal perspective, thus marketing cannot be reduced to a campaign, a function nor



a plan. Marketing professionals from the academe and practice require a marketing framework that essentially gives them a robust model, whereupon they can cope with the diverse challenges of the contemporary rate of a highly complex and globally interconnected market reality. We see the next frontier of successful marketing in mastering data within 3-ply (Beer, 1972, 1985) logical layer of an intelligent marketing organization. Hence, all viable organizations embody:

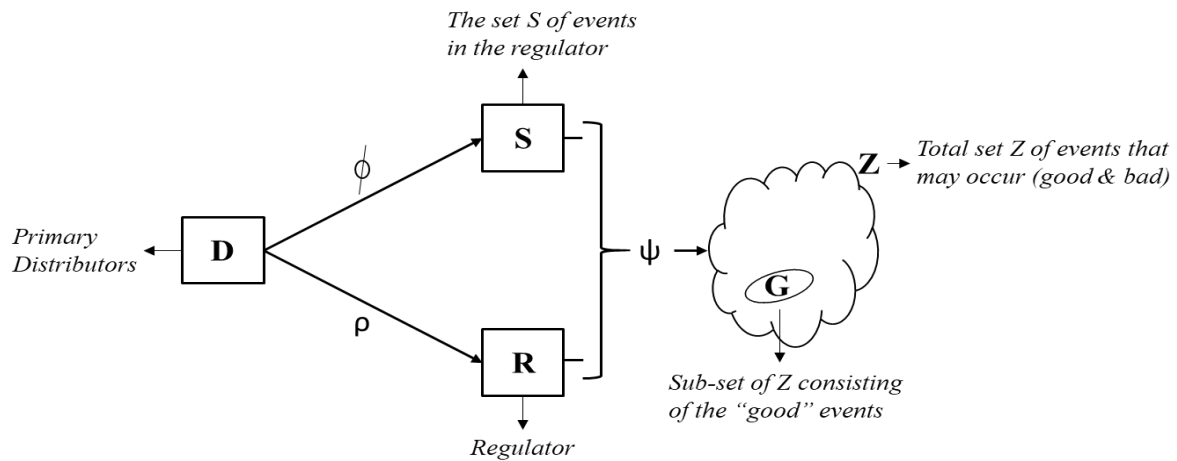
1. an operational apparatus, upon which a task and action is executed (body)
2. a strategic framework that makes the action a result of the firms' recursive layers of intelligence systems (brain), and
3. and a normative meta layer that distinguishes the firm from the competition and declares its long-term legitimacy in the market (philosophy), hence its sustainable competitive advantage.

Based on our findings, intelligence cannot be defined purely by the ability of a system to compute. While most definitions of intelligent behaviour reside within the boundaries of computability of a system, we take the stance against the computational definition of intelligence as a single regime, hence, we see intelligence from a marketing perspective, which is interactional and not mere computational. However, we do not exclude computability from our interactional model of intelligence, in contrary we see the power of computation as a major force in doing good and holistic marketing. Based on the exponential rise of technology and to cope with the rising complexity and interconnectivity, firms must evolve towards designing profound capabilities that would leapfrog their transition from an inherited logic of an atomistic universe towards a data and bits driven global economy (Kamran *et al.*, 2020). This dimension makes modelling and the ability to absorb the exponentially rising data the next pivotal frontier and locus of innovation that all successful marketing systems need to master. We design a model-based-management (MBM) approach towards the necessary holism that robust marketing systems need to embody, as reductionist approaches of the past may not have

sufficient requisite variety (Ashby, 1956, 1958b; Conant and Ashby, 1970) coping with the contemporary challenges facing marketing professionals. Therefore, we seek to align the fields of traditional marketing and AI via a marketing lens of interpretation, which defines the playing field, where avoiding marketing myopia (Levitt, 1960) of silo-thinking is critical.

### **Approach**

The design of a complex system of regulation is required to cope with a complex reality of the environment. No simplistic model of control would be able to absorb the dynamic perturbations of a complex environment. Thus, we seek to align three essential dimensions in designing our approach of a robust system of marketing control. A foundational law of regulation was proposed by Ashby (1956, 1991), which marked the birthplace of management cybernetics (Beer, 1960, 1972, 1981a), wherein the first revolutionary model of a viable organization was designed. Besides, we seek to underpin our approach based on the proven good regulator theorem (Conant and Ashby, 1970), which has since made the ability of a system to model its environment not merely as an option but moreover to be the necessary condition for organizational survival. Intelligent systems must proceed in learning by the formation of a model(s) of their environment. Thus, this isomorphism of modelling acuity as illustrated in Figure is essential with the system being regulated (Conant and Ashby, 1970; Bach, 2020; Schwaninger, 2009).



$$\rho : D \rightarrow S$$

$$\phi : D \rightarrow R$$

$$\psi : S \times R \rightarrow Z$$

Figure 1: Describing Sommerhoff's Five Variables of Regulation.

Source: After Conant and Ashby (1970)

In terms of regulation, there are multiple approaches possible, we postulate five variables throughout this whole process (Sommerhoff, 1950) as described in Figure. On one hand, there is a total set  $Z$  which represents the number of events that may occur disregarding their regulation. On the other hand, the set  $G$  (a sub-set of  $Z$ ) represents only the good regulated events. Furthermore, the set  $R$  of events serves as a regulator and the set  $S$  represents the events in the rest of the system. Whereas, set  $D$  is known as the disturber by causing the events in the system  $S$  and hence, driving the outcomes out of  $G$ . The objective is to increase the capacity of  $G$  by the capacity of the regulating model to enhance marketing effectiveness.

Another dimension, which would make our approach stable is the framework of MBM (Schwaninger, 2009). MBM describes the modelling ability of an organization to be based on the logical triad as described in Figure. Good regulating models need to capture the width of the complexity of the situation they model, then a breadth of this spectrum needs to be illustrated. Furthermore, the acuity of the model connecting all the logical modelling spheres is pivotal to good regulation, hence, the "... use of models can fulfil different functions, such as

*description, explanation, design, decision and change*” (Schwaninger, 2009). Designing regulation is not to be regarded as an imposed system on the overall system under control but moreover as a steering capability of a feedback-oriented larger organizational system.

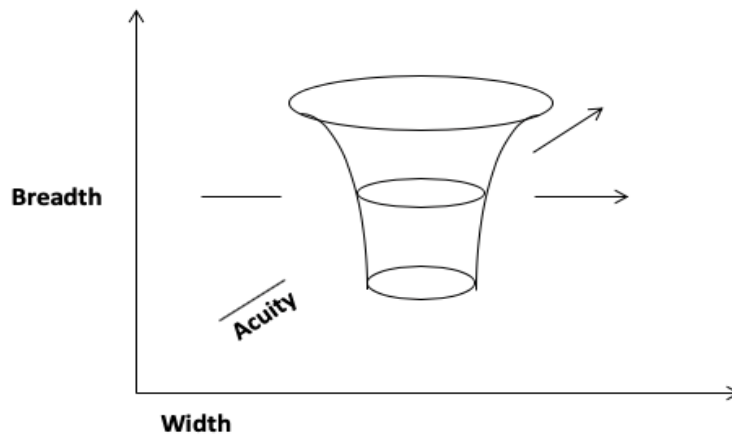


Figure 2: Describing the Three Dimensions of Model-Based Management, which Consist of Width, Breadth, and Acuity of the Model.

Source: After Schwaninger (2009)

Constructing on Conant and Ashby, we underpin the necessity of modelling in the following manner: *“The significance of models and modelling to organization ... can hardly be overestimated, a factor that has a deeper reason... In general, models can trigger the discovery of new perspectives and insights, support the ascertainment and assessment of options, highlight priorities, illuminate uncertainties, and unveil the dynamic features, propensities, risks, and vulnerabilities of a system. They are very helpful in disciplining the organizational discourse”* (Schwaninger, 2009). The MBM methodology corresponds with the dimensions of organizational intelligence that we would expand upon in the next part.

### **Understanding Intelligence**

It is essential to create a logical path towards the dimension of what intelligence means and why to pursue such a task within the context of marketing. Marketing finds itself within a pivotal stage of its evolution as a field of managerial sciences. The emergence of high-tech and

in particular artificial intelligence (AI) has changed the essence of marketing today. We see three emerging possibilities for the further developments of marketing today:

1. Marketing stays within its origin as a major field of business and managerial studies
2. Marketing pivots towards a transcending merger with computer science and AI
3. Marketing evolves towards becoming a field of its own and pivots towards redefining digital humanities

We concentrate on the first option, which for us as marketing-management scholars is the favourite option and to whose realization we are contributing to this research. Understanding intelligence from a marketing lens has been so far observed as a firm's ability to increase its sales within the context of growth. While we are aligned with this notion in a Druckerian sense of that profits are the costs of staying in business (Drucker, 1954). However, we still want to focus on the overall fitness of the firm for which profits and capital may be an indicator, but do not represent the overall fitness of the firm.

A rich repository of the definition of intelligence and coping with its nature was published by (Legg and Hutter, 2007; Legg *et al.*, 2007). According to Ashby (1991) *"Intelligence today is defined by the method used for its measurement; if the tests used are examined, they will be found to be all of the type: from a set of possibilities, indicate one of the appropriate few. Thus, all measure intelligence by the power of appropriate selection (of the right answers from the wrong)"*. We construct upon the vast collection of the definitions of intelligence (Legg and Hutter, 2007; Legg *et al.*, 2007) and do agree with their final definition: *"Intelligence measures an agent's ability to achieve goals in a wide range of environments"*. However, one point of critique here would be, that which authority decides on what the dimension of the goal is in terms of the applied yardstick that defines it as a worthy ideal to be pursued? Many additional definitions exist that embody validity as well. We also acknowledge Kurzweil's definition: *"Intelligence is the ability to use optimally limited resources—including time—to achieve*

goals.” (Kurzweil, 2000), hence from a managerial point the notion of timing is pivotal. However, our task is to define the dimension of intelligence from a marketing perspective. In alignment with Bach (2020): “*Intelligence as the ability to make models*”, we define: Intelligence is the ability to maintain viability while designing models of possible worlds. Thus, marketing intelligence is the ability to maintain viability, while transforming marketing’s means to thrive in a changing environment.

### **Artificial General Marketing Intelligence (AGMI)**

While artificial general intelligence (AGI) was the original focus of computer scientists but due to the nature of the difficulty it provided, the notion of narrow AI became the locus of innovation within the AI-scientists’ milieu. For marketing of the contemporary era, this notion may solve some problems, however, we suggest a hybrid and holistic embodiment of AI be conceptualized. We coin this application of AI as AGMI.

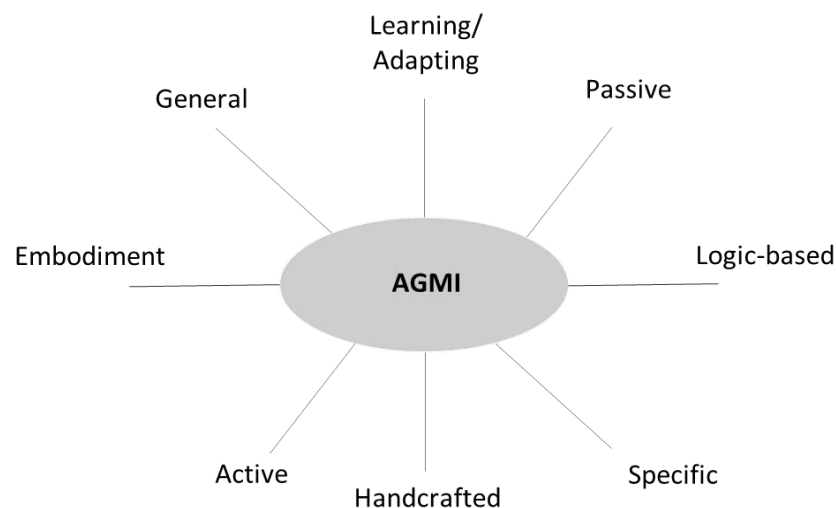


Figure 31: Illustrating the Artificial General Marketing Intelligence Framework, whereupon a Hybrid Model of a Marketing Interpretation of AI Could be Paved.

We view AGMI as a platform which is capable of integrating the collective knowledge of the organization and design a marketing interpretation of AI in an ethical, sustainable, and multi-cultural fashion. The platform represents eight different dimensions which need to be

intertwined for optimal results while their nature may be contradictory. We derive these dimensions in the following manner:

*Learning/Adapting* – a classical example of this dimension would be the Deep Neural Networks (DNN) models due to their immense capabilities of learning difficult tasks and achieving excellent results (Goodfellow *et al.*, 2016; Sutskever *et al.*).

*Handcrafted* – a well-known example of handcrafted knowledge AI system is the tax preparation software which requires entering the data and information, and the IBM-developed knowledge system “Deep Blue” that managed to defeat the human world chess champion in 1997 (Allen, 2020).

*Embodiment* – this dimension is inspired by (Pfeifer and Bongard, 2006; Scheier and Pfeifer, 1997) and their new view of intelligence. Wherein intelligence requires a physical embodiment so that experiences in uncontrolled environments and the specificity of physical material could contribute to how the machines think.

*Logic-based* – the logic-based problem-solving machines use no advanced decision algorithm; it rather relies on rudimentary mathematics and “ingenuity” in the manner of a clever high-school student for example (Gelernter and Rochester, 1958; Hassabis *et al.*, 2017).

*Active* – Deep learning enables computational models with multiple processing layers to learn representations of data with multiple levels of abstraction. As LeCun states, “*Deep learning discovers intricate structure in large data sets by using the backpropagation algorithm to indicate how a machine should change its internal parameters that are used to compute the representation in each layer from the representation in the previous layer.*” (LeCun *et al.*, 2015).

*Passive* – a classical example for this dimension is the long-short-term memory (LSTM), “*a method developed to learn how to bridge minimal time lags in excess of 1000 discrete-time*

*steps by enforcing constant error flow through constant error carousels within special units”* (Hochreiter and Schmidhuber, 1997).

*General* – this dimension is inspired from the work of Legg and Hutter, where they collected intelligence definitions from experts of different fields and conceptualized a general understanding of intelligence (Goertzel, 2006; Legg *et al.*, 2007).

*Specific* – tasks with a high level of specification (e.g. vision, image, speech) require *deep architecture* to be executed. “*Deep architectures are composed of multiple levels of non-linear questions, such as in neural nets with many hidden layers or in complicated propositional formulae re-using and sub-formulae*” (Bengio, 2009).

One additional dimension that marketing scholars do not consider to be a marketing problem is the aspect of how the firm is structured. This in particular means that the organizational structural intelligence is taken as a given phenomenon. Good marketing decisions embrace a marketing-guided integration of AI is always as a result of the collective intelligence of the firm, whereupon we construct the AGMI.

### **Structure is Strategy**

The notion of structure and strategy paradigm through the Chandlerian *weltanschauung* has delivered the foundation of the contemporary understanding of all strategic thought and practice so far. As a solid contribution and point of concentration to the state of current theory and practice of management, the essential role that Chandler (1962) played from a meta-analytical point of view, cannot be underestimated. The debate between structure and strategy as a point of entry here is essential. A major foundation, whereupon all of the contemporary managerial models rely on was paved therefore by Alfred Chandler (1962). Thus, based on the recursive nature of the structure of organizational systems, it is foundational in designing organizational homeostasis (Simon, 1969), that this debate must be had (Kamran and Neise, 2018).



Business administration based on the economics' Weltanschauung of the market equilibrium assumes that organizational structure as long as the output of the organizational systems (enterprises) obeys the doxa of the supply and demand theory, any additional enquiries into the structural dynamics of a firm are mere an externality. Furthermore, an all-embracing organizational structure has never been developed within the managerial theory, which means whatever organizational model that works in terms of chance or legal risk analysis is thus optionally preferred. Put simply in physics' terminology, a standard model has never been pursued nor developed within the large volume of managerial publications (Kamran, 2019). A major gap within managerial and strategic discourse also has been that the quest for survival was never questioned in terms of the viability of the organization beyond an economic reality. All organizational fitness has been reserved and reduced to economic fitness, which is the very doxa that is responsible for most of the contemporary corporate failures. Organizational demises do not always reveal themselves in any other forms except in terms of financial and economic distress. However, the very nature of demise usually is related to normative or strategic crises *avant la lettre*. Furthermore, the role of inadequate structures and political games played within the organizational rationales, where employees' motivation are steered through monetary benefits and volumes of sales generated, founded in the rationale of management by objectives (MBO), display that self-interest is not a solid organizational glue to maintain a healthy corporate and industry culture and employee retention. The financial industry has displayed this observation in the 2008 management crisis, to which some still ill-informed refer to as the financial crisis.

The authors observe strategy not purely from a top-down designed *a priori* calculus of *Wahrheit* imposed on a system, but moreover from coping with emergent phenomenon constructed and designed by the intertwined interactional intelligence of the organization's internal systems and structures navigating the complex and turbulent global environment in an embodied (structured) sense (Pfeifer and Bongard, 2006).

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This top-down and hierarchical understanding of the essence of strategy based on the dimension laid in terms of Chandler's thesis "...structure follows strategy", has been responsible for the evolution of strategy with vital implications for strategy and management in general. Among many scholars, who have dominated the field the role of Porter (1979, 1980, 1985, 1996, 2008) cannot be equally overestimated. Porter's understanding of strategy and organizational structures in terms of value chains (VCs) was much influential (Porter, 1985). His 1996 paper "What is strategy" as found within the Chandlerian sense, delivers a solid point of entry to bridge operations research and strategy and is based on the analogy that: "operational effectiveness is not a strategy". Research in understanding VCs has established Porter's original contributions to strategy and deliver a solid and essential foundation to embed a new and more holistic approach (Ramos-Rodríguez and Ruíz-Navarro, 2004). However, no top-down imposed system could establish sufficient requisite varieties in terms of managing the unforeseen or complexities beyond the bounded rationality and an industries illusive.

Thus, organizational structure cannot be left to chance nor to a next fashionable trend, especially in times of mega disruptions e.g. the corona pandemics and the global trade-wars etc. We propose to see the structure from a triad of the essential functions that guide organizational viability (Beer, 1972, 1981a, 1985; Schwaninger, 2009). In times of rising complexity due to the nature of global inter-connectivity, the exponential rise of highly unstructured data, the convergence of global consumer culture and a vital need for quick responses, marketing needs to look into dimensions of robust structural dynamics of regulation that has the necessary requisite variety in absorbing the perturbations affection the homeostasis of the firm.

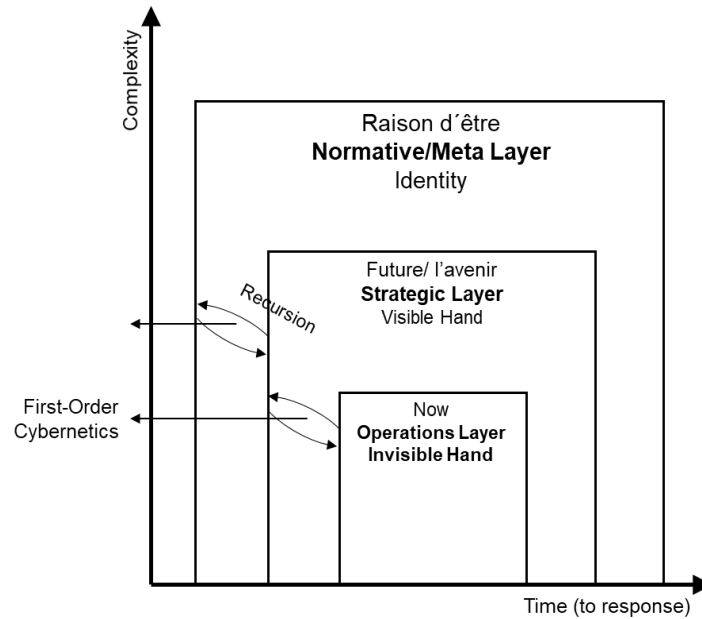


Figure 42: Defining the 3-Ply Recursive Structure of Organizational Embodiment for Viability.

Viability, in essence, is founded within the recursive nature of managing three organizational spheres concurrently. A firm must prevail by managing its operational sphere by understanding and conducting what objectives must be realized today. It also needs to understand what dimensions of “possible worlds” in the future and their condition for succeeding to be laid. Furthermore, it needs to embody an assessment of its *raison d'être* in terms of what is the legitimacy in the market, which means; how can the firm preserve its homeostasis, while transforming its autopoiesis by embracing disruptive innovation (Christensen, 1997). An example of a firm, which did not maintain this dimension would be Nokia, which proclaimed that “connecting people” is its most vital justification existence. However, after Apple introduced the iPhone guided by the normative assessment of “think different”, the legitimacy of Nokia and many others were jeopardized and not even the takeover of Microsoft has helped to save it. Hence, the obsession of growth and capital is not a substitute for organizations’ homeostasis and having capital and resources did not substitute organizational fitness.

## Intelligence Behaviour from a Marketing Point of View

AGMI is the changing logic, whereupon recursive embeddedness of AI within the triad of the structural design for viability in marketing could be integrated. This means the firm copes and assesses the data generated from the environment not by a single lens of acquiring more volume, but moreover by seeking to guide the firm into the possible worlds of future growth in terms a designed condition for ambidexterity of exploiting the contemporary opportunities while exploring the bridges of growth of tomorrow.

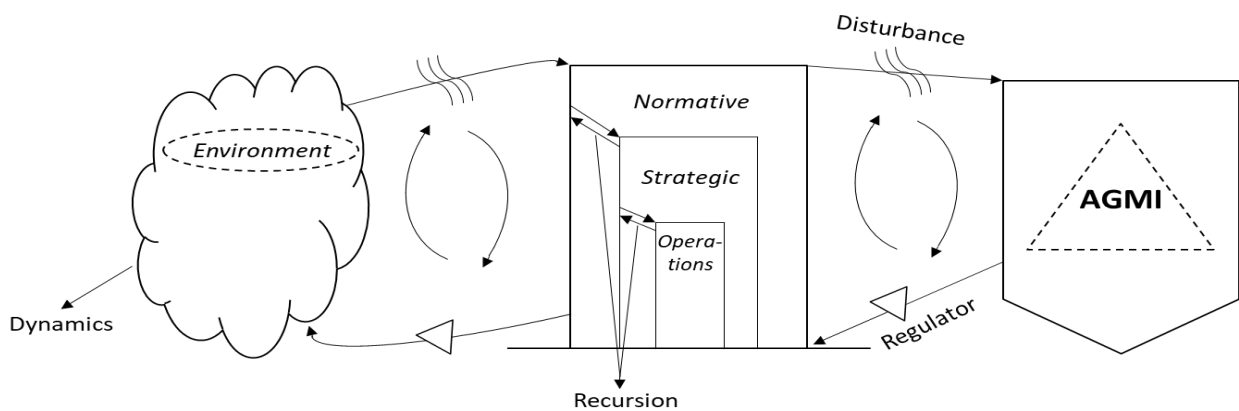


Figure 53: Defining a Practical MBM of How Data is Generated from a Dynamic Environment and Interpreted Adequately Within the 3-Ply Channel-structure Guided by the Integration of AGMI.

In addition, firms seek to observe the shifts within the global market via the lens of normative homeostasis of its *raison d'être*. This requires a meta-lens which may be different and in some cases contradictory. The essence of a strategy thus is choosing what not to do (Porter, 1996). A solid example here for clarity is when Apple was losing ground to Microsoft and was technically bankrupt in 1996. BusinessWeek (1996) published the title “The fall of an American icon” and Wired magazine underpinned that notion by publishing “101 Ways to Save Apple” (Daly, 1997). Apple had to transform its identity and go beyond being just a computer manufacturing company to survive. It did the unexpected, first by not lessening to anybody except its inner collective voice, of who Apple was and unexpectedly gave the world the iPod and entered the music industry, then the iPhone, entering the mobile-phone industry, and the

iPad. By each fully focused marketing introduction, it went full force in reclaiming its competitive position, not being obscured by purely sales generation alone, but by actually changing the nature of multiple strategic industrial games (Rumelt, 2012). In the logic of integrating AGMI, firms have now the capacity to process all the unstructured data in the sense of segmenting them into the triple streams of information channel receivers and make them available by designing machine learning (ML) algorithms that would give the data solid cybernetics integrity to be used by the three different spheres of the firm adequately. Each channel has to achieve a different but collective objective contributing to the overall fitness of the marketing organization; thus, marketing could be regarded a firm's organ that keeps a well-balanced cohesion between the 3-ply recursive embodiment of the firm intelligence coping with the complex and dynamic environment.

### **Conclusions**

We have established that intelligence is beyond computation and requires from a marketing Weltanschauung that the firm understands the importance of the recursive nature of steering the organization within the logical spheres of operations, strategy and a meta-layer. Hence, this notion requires the recognition of the various nature of coping with the information gained from the environment by the triad lens in designing the channels of communication. To convert the unstructured and ill-defined data, marketing scholars are advised to set up an organizational embodiment, which with the amplification of AI has the capacity of distinguishing the nature of the data and their integrity. We have postulated an extended definition of intelligence, which we have constructed to be interactional, as the legitimacy of marketing is steering the firm in its wider environment. We underpinned this notion by a marketing interpretation, to which we referred to as "interactional intelligence". The path of intelligent behaviour from a marketing lens is promising, whereupon the constructed AGMI model can be put into a solid application, thus, to be tested as a powerful tool of diagnosis for marketing to thrive in a changing milieu.

By aligning the fields of traditional marketing and AI, we have illustrated an approach, how this can be brought into a cohesive whole within the structural dynamics of an intelligent marketing organization. We conclude by stating that AI is a means for marketing to be interpreted within the context of organizational homeostasis and that the dimension of marketing myopia beyond the single regime of sales and growth needs to be constructed. Organizational viability depends on the total fitness of the firm, where marketing plays a pivotal role.

### **Contributions**

In the contemporary era of globalization driven by hyper-connectivity and AI, marketing theory needs to develop its own interpretation of what intelligence means and how to integrate AI into a marketing logic. The author distinguishes between making profits in the short-run and the long-term homeostasis of the firm. Therefore, the paper highlights the role of structure in the marketing organization. The author defines intelligence from a marketing lens and suggests for an MBM-methodology, whereupon a 3-ply model of the logical layer of a successful marketing organization is designed. The research observes the viability of firms based on good marketing management that considers the designing a solid operational layer (body), a strategic framework of thinking (brain) and a normative sphere that defines (philosophy) that looks beyond the myopic view of the market and towards maintaining the firm's legitimacy in the wider environment. The designed framework of AI coined as artificial general marketing intelligence (AGMI) is holistic and understands the nature of rising data to be unstructured and that absorbing data requires as defined above a solid organizational structure that has that capacity of absorbing data in the right manner and within the right channel. Marketing professionals from the academe and practice require a marketing framework that gives them a robust model, whereupon they can cope with the diverse challenges of the contemporary rate of complex and globally interconnected market reality. The path of intelligent behaviour from a marketing lens

is promising, whereupon the AGMI model can be put into a solid application, thus, to be tested as a powerful diagnostic tool for marketing, thriving in a changing environment. By aligning the fields of traditional marketing and AI we have designed an approach, how this can be brought into a cohesive whole within the structural dynamics of an intelligent marketing organization.

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## **THE DESIGN OF ARTIFICIAL GENERAL MARKETING INTELLIGENCE (AGMI) AS A UBIQUITOUS CONTROL SYSTEM**

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### **Abstract**

Marketing has been highly affected by the rise of artificial intelligence (AI), with less interpretation from the traditional marketing side to postulate a strategy of rapprochement between the fields of AI and traditional marketing towards an aligned interpretation of the future. With the rise of global complexity of markets and the real-time cyberspace economy, marketing management needs to design adequate tools of control to cope with this state of turbulence. We postulate an applicable model of a control system coined as the artificial general marketing intelligence framework to cope with the rising complexity by designing a solid model of alignment of AI with traditional marketing from a management cybernetics perspective, whose raison d'être is the embodiment of the science of effective organization. Our proposed model incorporates not only the whole dynamic of the environment but moreover, it recognizes the organization as a complex model that needs to be cultivated by the framework of structural intelligence of the organization. We conclude by establishing the notion of control as the essence of marketing within the contemporary era.

**Keywords:** Design, artificial intelligence, ubiquitous computing, marketing theory, marketing intelligence

## **Statement of Key Contributions**

Marketing in the age of cyberspace-economy finds itself within a normative structural shift concerning its identity. Marketing scholars and practitioners are overwhelmed by the constant state of disruptions and challenges they must cope with. We propose a holistic model of illustrating this complexity by designing a robust framework of control coined as the artificial general marketing intelligence (AGMI). We understand control as the essence of marketing management; hence firms must be steered within the complex global markets, requiring novel responses from marketing scholars and practitioners. Our postulated model is adaptive and marketing professionals depending on the nature of their firms adapt or advance its technological inputs, however, one dimension may stay with us for a longer period, thus the state or predictable markets is over, and we have a constant companion, which is the complexity and this force must be understood *avant la lettre* by marketing scholars and professional and attenuated properly within the theoretical transcendence of the marketing of the 21 century. We apply cybernetics models, as the science of effective organizations. Furthermore, by the integration of holistic and interdisciplinary sciences as complexity economics and AI we introduce an approach for synthesizing these diverse essential tools for marketing into a coherent model. As marketing has raised to shape our global society, the tools of traditional marketing must also deliver a dynamic shift in their applicability and validity for the complexity of the global markets of today. This means we are a marketing interpretation of a digitally and complexity driven societal understanding of the global markets and how we could contribute that marketing is established as a foundation of sustainability in terms of organizational survival and long-term profitability. Thus, marketing relates the firm to its environment and the notion of structural intelligence plays a major role, whereupon we construct our contributions.

## **Introduction**

The global marketing environment has become too complex to be navigated by simplistic and reductions models of management. Marketing scholars and practitioners are overwhelmed by the constant state of disruptions and challenges they must cope with. We propose a holistic model of illustrating this complexity by designing a robust model of control coined as the artificial general marketing intelligence (AGMI). The model bridges many fields of sciences as cybernetics, artificial intelligence (AI) and complex adaptive systems (CAS) to deliver an adequate market reality for the navigators of the firms to make better and more intelligent decisions. We display a larger role for marketing due to the nature of its effects on the global societies and thus give the marketing helmsmen of today a design of a promising general navigator model.

## **Marketing in the age of cyberspace-economy**

Marketing in the age of cyberspace-economy finds itself within a normative structural shift concerning its identity. While volume generation by growth was once the mantra of good marketing, today, however, we see that this logic needs to be extended by the notion of “control” of a complex system within a dynamic environment. We understand control as the essence of marketing; hence firms must be steered within the complex global markets, requiring novel responses from marketing scholars and practitioners (M-S&P). A solid foundation was laid by the publication of “Cybernetics, the science of control and communication in the animal and the machine” (Wiener, 1948). Control for our understanding is not imposed on the system to be regulated, but moreover, it is an essential apparatus of regulation of the system to be navigated by the integration of ubiquitous feedback from a rapidly changing milieu. However, our era of exponentially rising complexity based on the global cyberspace-connectivity requires the design of adequate control system-mechanisms that can cope with diverse disruptions and crises, which require functioning global regulation. Our logic in this paper differs from the

traditional habitus of observing managerial conduct merely from the economics of equilibrium lens, whereby the world has paid a high price for this equilibrium finesse (Arthur, 2015). “If we assume equilibrium, we place a very strong filter on what we can see in the economy. Under equilibrium by definition there is no scope for improvement or further adjustment, no scope for exploration, no scope for creation, no scope for transitory phenomena, so anything in the economy that takes adjustment—adaptation, innovation, structural change, history itself—must be bypassed or dropped from theory. The result may be a beautiful structure, but it is one that lacks authenticity, aliveness, and creation” (Arthur, 2015). Seen from the lenses of cybernetics and complexity economics, we could technically postulate the thesis that all firms doing business globally are in a state of constant crises, however, it depends only on the adequate recognition of the change by the helmsmen of the firms, and the available time to designing an appropriate response, which distinguishes the winners from those on the losing side. This, in our view, is the essence of control, thus, time is the currency of the marketing strategist. By the notion of equilibrium taken out of our marketing equation, the foundations of a timely response can be designed if the structural conditions of organizations are set within the context of managing high-level environmental complexity *avant la lettre*. Hence, M-S&P are in need to find their interpretation of control by designing holistic models of sense-making and sense giving within a managerial context. The essence of management today is not only managing constraints but moreover by establishing the necessary conditions to pivoting towards the adequate holism of the managerial realm, which requires an interdisciplinary engagement. Furthermore, we see our field of marketing to be highly affected by the rise of artificial intelligence (AI), with less interpretation from the traditional marketing side to postulate a solution towards an aligned interpretation. Thus, to establish an applicable model of a control system of coping with complexity, which marketing organizations are facing today and to design a solid model of alignment of AI with traditional marketing from a management

cybernetics perspective, whose *raison d'être* is the embodiment of the science of effective organization (Beer, 1972, 1981a, 1985).

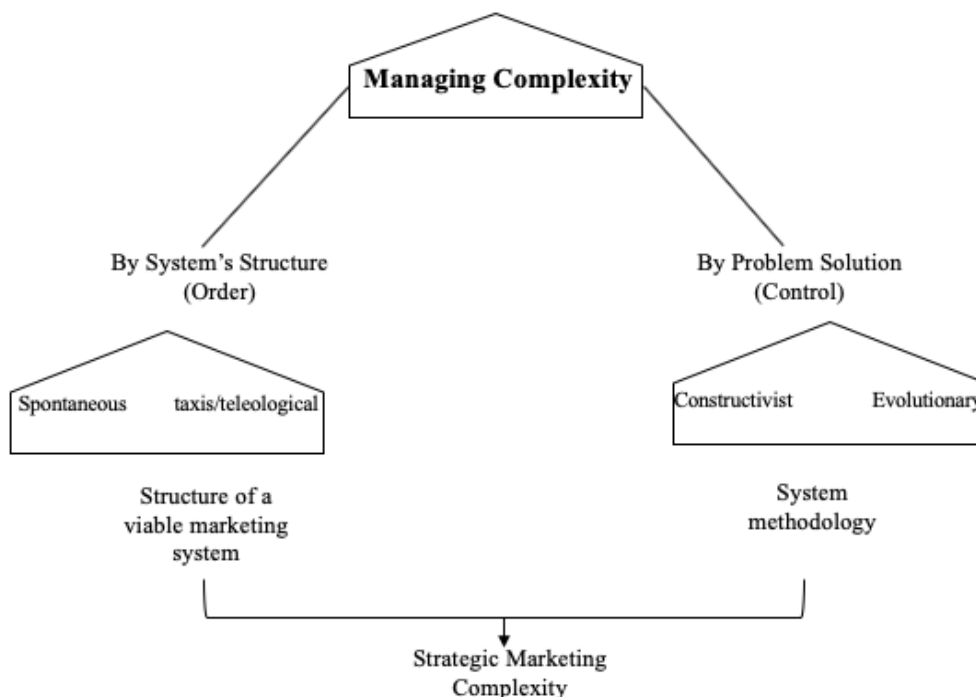
### **The Century of Complexity**

The globally interconnected and ubiquitous market has challenged much the homeostasis of many large firms. However, the dimension of damage that the Coronavirus did to the global economy is a reminder of an intensifying trend of global complexity. Observing these challenges that have had the most vital destruction of business and organizations globally, we see the disparate need for designing better control systems at the frontier of management and thus marketing as the major organ of the firm relating the firm to its environment. To design a marketing interpretation of dealing with complexity, it is essential to understand the nature of it, which arises from simple and emergent phenomenon over time. However, we need an interpretation of what a complex environment means to marketing and which tools of complexity science we could integrate into our field. “If the first three centuries of modern science have extended the human sensorium, learned the properties of matter and life, the next three centuries will see the rise of the sciences of complexity. The arrival of these sciences will mark the completion of the scientific enterprise as we now know it, for complexity is the last frontier of science as far as we can see” (Pagels, 1988). The larger the varieties of managing the environment of a complex system, the more varieties the controller of the system must generate for handling the dynamics of the system’s interaction with the environment (Ashby, 1956, 1958a). “Complexity economics holds that the economy is not necessarily in equilibrium, that computation as well as mathematics is useful in economics, that increasing as well as diminishing returns may be present in an economic situation, and that the economy is not something given and existing but forms from a constantly developing set of institutions, arrangements, and technological innovations” (Arthur, 2015).

We propose a model of managing complexity based on a designed structural intelligence incorporated within the control system of the marketing organization. Structure from a cybernetics *Weltanschauung* is not static, but moreover dynamic (Malik, 1984). It is not only the relations between the components of a system to be considered but moreover, it is the contextual arrangements of the designing capability of the system to illustrate and visualize patterns and models of order and systemic stability to coping with the complexity that is essential for ubiquitous control. We propose a model of managing complexity as displayed in Figure 1. We understand marketing organizations as a complex adaptive system (CAS) (Holland, 1995). CAS is a framework that assists organizations in terms of quality improvement and is flexible enough to be used in various dimensions. The ideas of the system/framework are usually associated with developments in second-order thinking, thus, it describes recursive interactions between different layers of systems – typically control loops and feedback, and principles that guide several systems to achieve their goals through the return of information that forms a closed loop. There are several core CAS elements with diverse features and management principles: (1) Multiple agents with schemata: which typically respect democratic management principles, thus, leading to mutual adjustment. (2) Self-organizing networks: which tend to adjust the fitness landscape by offering incentives and long-term rewards. (3) Coevolution: is known for monitoring the implications of feedback, and (4) System adaption: avoiding major change and respecting individuals and their organizations that exist in an ecosystem. Within this logic, we construct on the dimensions of a spontaneous/polycentric or taxi/teleological systems that process complex (ill-structured) data within the dimension of the structural dynamics of a viable system (VSM) (Beer, 1972; Schwaninger, 2000a). According to (Beer 1984) five key subsystems are interactively involved in any organism or organization that help us maintain our identity in an independent way within a shared environment. The first subsystem of any viable system regards the elements that produce it; thus, these elements are themselves viable systems. Like a community where the citizens constitute the system of the



State, by producing communities, firms, cities, industries, and other viable agglomerations – Which are themselves all elements to be included in the shared environment. The second subsystem serves as a coordinator of subsystems and attenuates the potential oscillations between them, whereas the third subsystem deals with the operative management side of the subsystems as well as auditing and monitoring. Furthermore, the fourth and the fifth subsystem interfere respectively with the management of long-term relationships with the shared environment and the normative dimension of management and corporate ethos. Concretely, a system is considered viable if, and only if, its structure fulfils the requirements mentioned above, which the theory specifies. “A complex adaptive system can function (or continue to exist) only if it makes a continued adaptation to an environment that exhibits perpetual novelty”, thus, “... perpetual novelty is the hallmark of CAS” (Holland, 1995). On the other side, we see a constructivist and evolutionary design, thus by putting the different structure of a problem-solving mechanism into a coherent whole we have created the necessary conditions for a systems’ methodology, which could then be put together in concert to solve strategic problems (Malik, 1984).



**Figure 1:** Illustrating the Dimension of Managing Complexity in Marketing

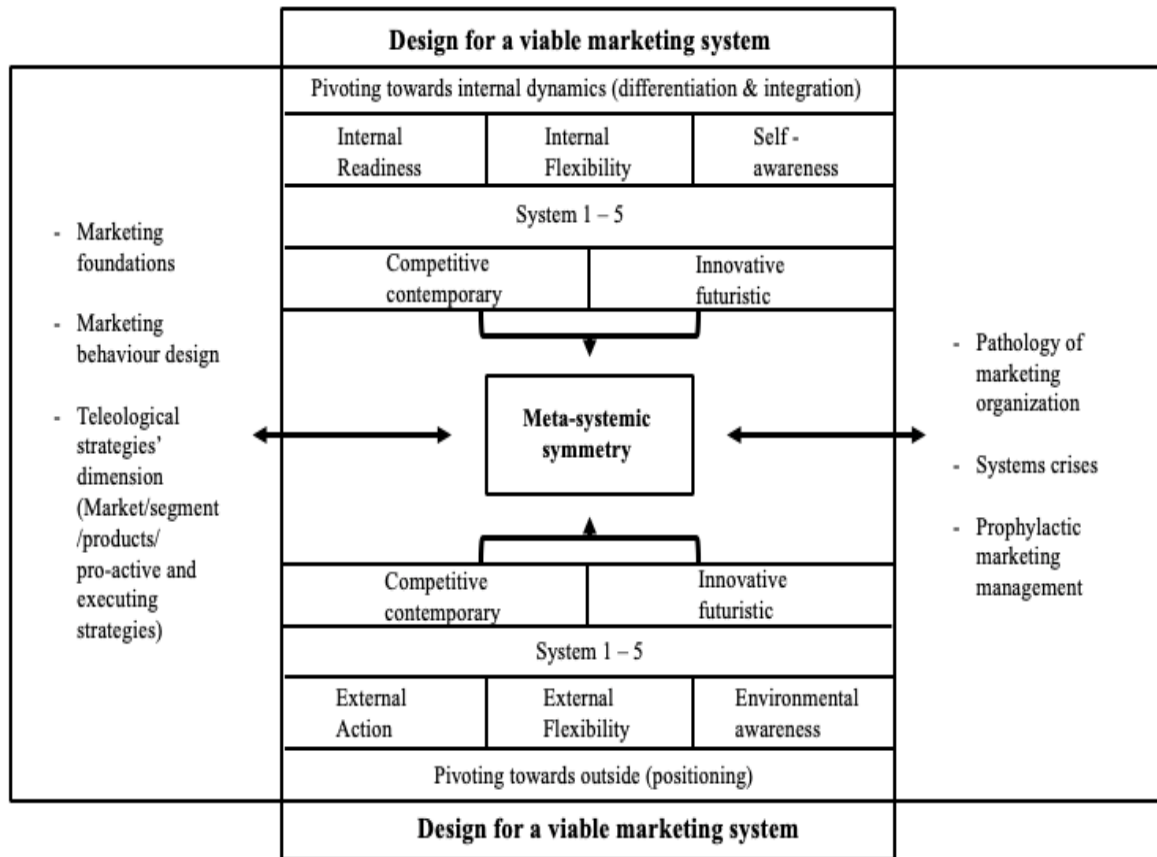
**Source:** After Malik (1984), Extended by the Author

Our general approach of the CAS and VSM within the logic a holistic and interdisciplinary marketing management answers Ansoff's call, who stated: *"Most of the current theories deal with average properties of organizations as a class, and not with differences and extremes of behaviour. (Note the typical titles: Behaviour Theory of the Firm, Microeconomic Theory of the Firm, and the common reference to 'organizations', in the plural, as if they were all alike.) The search for averages and archetypes is typical of young sciences trying to unravel complexity. But, from the point of view of a practicing manager, averages are secondary to his interest in the extremes: in the reasons for pathologies and for successes"* (Ansoff, 1990). Thus, we seek to bring attention to a methodology of a marketing transcendence of being an organ of viability for the firm and the whole society.

### **Model-Based-Management (MBM): A Methodology of Symmetry**

We have arrived at the age of the globalization of totality (Kamran *et al.*, 2020). The nature of competition has been shifted from the pure economic boundaries of organizations, industrial structures and mere linear understanding of markets that could be fixed by financial predictions, top-down calculations, linear planning, and forecasting methods. Strategic thought in marketing today needs to embrace a symmetry of the structural design of the firm and its web of networks, configurations and intelligence of the organizations' systems reflecting the globally hyper-connected market. We propose a model of a viable marketing organization that reflects internally the necessary requisite variety in terms of the complexity of the environment it faces. "Globalization does not only mean ecological and economic problems. After the fall of the Berlin wall, politicians believed in the linear assumption that coupling the dynamics of free markets and democracy would automatically lead to a community of modernized, peace-loving nations with civil-minded citizens and consumers. This was a terrible error in a complex world" (Mainzer, 2005). The homeostasis of the organizational steering mechanism within the complex

environment can be a model of the needed ambidexterity of being competitive today, and innovative in the future, while modelling the complexity of the markets within the dynamics of the structural integrity of the viable marketing system.



**Figure 2: Displaying the Meta-model of a Systemic Symmetry for Designing Robust Marketing Systems**

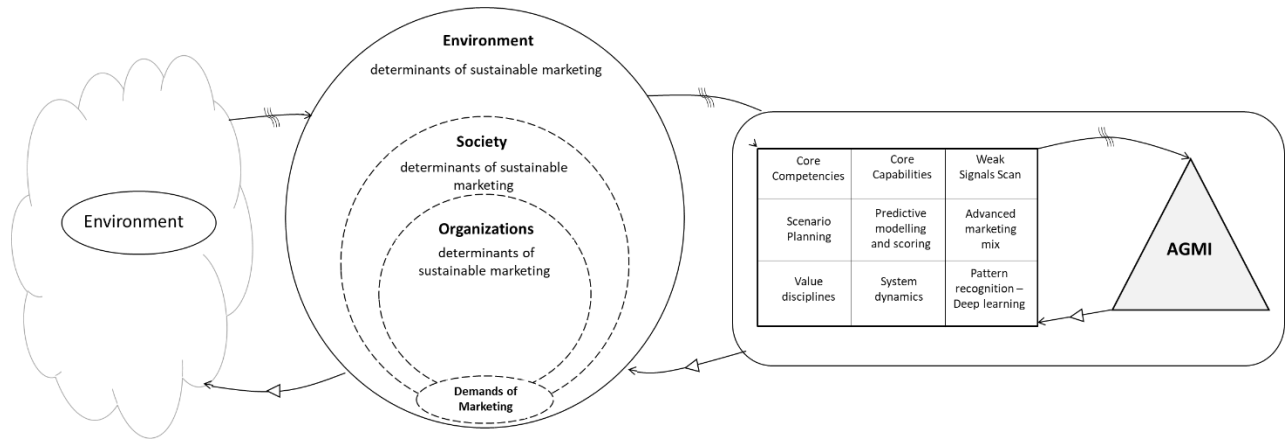
**Source: After Malik (1984) Extended by the Author**

The figure above describes a path towards designing a viable marketing system and maps out the steps and elements required to achieve a “Meta-systemic symmetry”. Depending on the shared environment in which the organization functions and the objectives it is trying to achieve, the design of a viable marketing system may pave the way into pivoting towards internal dynamics (differentiation & integration) and pivoting towards the outside (positioning). To pivot towards internal dynamics there are three key elements that the organization must fulfil: (1) internal readiness – being ready in terms of strategy, mentality, and consensus within

the organization. (2) internal flexibility – being agile and possessing strategic depth to cope with spontaneous risks. (3) self-awareness – being aware as an organization about the risks that may arise during the journey. On the other hand, to pivot towards outside also requires similar elements but with a focus on the external factors of the environment rather than the internal factors within the organization. Only those marketing systems are in control of their organization and the playing field, who generate more requisite variety respecting the foundations of cybernetics laws of good governance. The volume of perturbations to a system from the environment cannot be larger than the number of attenuating choices the organizations have.

### **Artificial General Marketing Intelligence (AGMI)**

The term AGMI is seeing the developments within AI as an integral part of top management and of marketing in the age of AI. AGMI is a pursuit of alignment between marketing management theory and how it can be bridged with the possibilities of AI and machine learning (ML) and good and solid organizational design. Thus, the rising complexity of marketing in the ubiquitous and globally connected cyberspace economy requires a control system that equally displays enough requisite varieties to attenuate the shocks that firms will be facing. “Someday we may exceed nature. However, for today, nature exceeds what we can do in many areas, especially in intelligent, adaptive behaviour. The challenge of building an artificial brain or intelligence is at the frontier of the new sciences of complexity. Again, it is the advent of the computer that has opened this frontier” (Pagels, 1988).



**Figure 3: Describing the Artificial General Marketing Intelligence Model.**

A convergence of top management models is selected on the right side of the control system to be implemented within the AGMI platform: (1) Core competencies – underpinning of the core products or services in which the organization is best at (Prahalad and Hamel, 1997). (2) Core capabilities – underlining the core activities of the firm (Leonard-Barton, 1992). (3) Weak signals scan – the applicability of the concept of weak signals, specifying ways in which different signals can be identified, collected and interpreted (Ansoff, 1975). (4) Scenario planning – in a world of complexity where information technology is driving an information evolution scenario planning must be taken into account (Lindgren and Bandhold, 2003). (5) Predictive modelling and scoring – with the help of AI and ML one is capable of setting up a scoring model which is necessary to quantify different risks and factors (Houthoof *et al.*, 2015). (6) Advanced marketing mix – a complex environment requires an advanced marketing mix with comprising elements which are ground-breaking for organizations in making right marketing decisions across geo-demographic consumer segments. (7) Value disciplines – a strategic framework which helps better understand and execute on the one thing that the organization is known for (Treacy, 1993). (8) System dynamics – is a model used for understanding the nonlinear behaviour of complex systems over various factors (Ogata, 2004). (9) Patter recognition – concerns the automatic discovery of regularities in sets of data through computer algorithms and classifies them into different categories (Bishop, 2006). Figure 3

above displays the interplay between a dynamic and complex environment that is governed by a VSM integrated within a CAS model. The VSM is the prerequisite of an effective organization. The model is the embodiment of viability and it is still one of the most robust organizational models. We illustrate further the dimension of widening grasp of marketing that is affecting firms and societies. Hence, marketing could afford to be only preoccupied within the dimension of growth of the firms and mere a tool of it. Marketing today, however, needs to integrate for the wellbeing of the organization also the well-being of the societies. While this was not considered in a Miltonian universe as the social responsibilities of the enterprise, we see the consequences much clearer with a fast-paced digital economy. We integrate also a self-governing MDM based control instrument in terms of an operations/situation room, wherein the marketing data can be visualized in real-time for the steering committee of the firm. The environmental scan will then be processed within the foundation of AI tools that are governed by ML and deep learning tools trained by the firm's intelligence systems (the brain of the firm) to support the marketing management team playing many scenarios and choosing the most viable one. This model of control incorporates not only the whole dynamic of the environment but moreover, it recognizes the organization as a complex model that needs to be cultivated and a framework of intelligence by modelling environmental dynamics aligned with the power of AI would possibly boost much the controlling ability of marketing, within the necessary and holistic understanding of the markets and the environment.

## **Conclusions**

Marketing today has become a much complex system that cannot be understood nor navigated via the Ps and additional models defined in times of global linearity and predictable markets via the lenses of equilibrium economics that have taken organizational structure and the dynamics of control systems as a given. The contemporary global environment could be better explained via globalization of a holistic nature, where diverse forces and their interplay have

many complex consequences for the survival of the firms, wherefore novel models driven by adequate technological advances and holistic marketing management are necessary for effective and efficient control. “Science has explored the microcosmos and the macrocosmos; we have a good sense of the lay of the land. The great unexplored frontier is complexity....” (Pagels, 1988). Our postulated model is adaptive and marketing professionals depending on the nature of their firms adapt or advance its technological inputs, however, one dimension may stay with us for a longer period, thus the state or predictable markets is over and we have a constant companion, which is the complexity and this force must be understood *avant la lettre* by marketing scholars and professional and attenuated properly within the theoretical transcendence of the marketing of the 21 century.

### **Contributions**

Marketing in the age of cyberspace-economy finds itself within a normative structural shift concerning its identity. Marketing scholars and practitioners are overwhelmed by the constant state of disruptions and challenges they must cope with. The author proposes a holistic model of illustrating this complexity by designing a robust framework of control coined as the artificial general marketing intelligence (AGMI). The research underpins control as the essence of marketing management; hence firms must be steered within the complex of global markets, requiring novel responses from marketing scholars and practitioners. The prevailing complexity and its force must be understood by marketers and professionals to react to the dynamic nature of firm behaviour and adoption of advanced technological inputs is necessary to be attenuated properly within the realms of marketing in the 21<sup>st</sup> century. The paper applies cybernetics models, as the science of effective organizations. Furthermore, by the integration of holistic and interdisciplinary sciences as complexity economics and AI, the author introduces an approach for synthesizing these diverse essential tools for marketing into a coherent model. As marketing has raised to shape our global society, the tools of traditional marketing must also deliver a

dynamic shift in their applicability and validity for the complexity of the global markets of today. This means we need a marketing interpretation of a digitally and complexity-driven societal and understanding of the global markets and how we could contribute that marketing is established as a foundation of sustainability in terms of organizational survival and long-term profitability. Thus, marketing relates the firm to its environment and the notion of structural intelligence plays a major role, whereupon the paper recursively constructs our contributions.



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**TITLE**

The Effects of Investors' Sense of Control and Perceived Humanization on the Adherence to Robo-Advisors.

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**Keywords:**

Robo-advisor, Humanization, Algorithm Aversion, Computers-Are-Social-Actors Paradigm

**Description:** This research shows how available options for customization and a humanization approach worked to increase consumer trust toward Robo-advisor for financial investment and in turn, to increase the likelihood of Robo-advisor service adoption.

## **EXTENDED ABSTRACT**

### **Research Question**

While the adoption of robo-advising and AI services has expanded exponentially over the past decade, usage and acceptance rate of these services is relatively low. Based on existing literature, possible reasons may come from psychological factors such as, the need for internal attribution (Leung et al., 2018) and algorithm aversion (Castelo, Bos, & Lehmann, 2019) due to perfect automation schema (Dzindolet et al., 2002; Madhavan & Wiegmann, 2007) and uniqueness neglect concerns (Cañas et al., 2003; Longoni et al., 2019). We believe that humanization and option for customization of an AI could increase their willingness to use the AI. According to computers-are-social-actors paradigm (CASA), with the presence of social cues, people tended to project human traits on the computer and interact with the computer as if it were a human (Nass et al., 1994). Thus, people should feel more empathy from the AI with social ability (Brave et al., 2005). Meanwhile, it is easier for customers to view their humanized AI agent as their partner and develop a need for relational attribution rather than internal attribution (Eberly et al., 2011).

Option for customization also helps to increase adoption rate independent of the humanization by responding to unique personal needs when people believe their uniqueness were neglected by AI. It can also help to take control over AI with the customized option simultaneously fulfilling their need for internal attribution.

## **Method and Data**

A total of 255 participants (Mturk) were recruited in a 2 (everyday conversation ability – no vs yes) x 2 (human name – no vs yes) x 2 (option for customization – no vs yes) between-subject design. Participants were asked to assume the role of an investor who owns a portfolio of stocks. They were considering an investment through a mutual fund and have sought out the help of an A.I. financial advisor to make an investment decision. Everyday conversation ability was manipulated by showing a dialogue record with an AI (basic vs lively conversation). Besides, *option for customization* was manipulated by whether participants had choice to choose the type of robo-advisor (i.e., conservative, balanced, growth, and aggressive growth). Lastly, participants were asked to answer the scales of adherence to robo-advisor's advice, perceived sense of control, perceived humanization, trust towards the robo-advisor, familiarity toward investment and personal information.

Additionally, in recent studies regarding AI technology adoption, it is known that experts compared to novice consumers dislike AI assistance (Logg, Minson, & Moore 2019).

Therefore, we included familiarity as an alternative measurement for expertise in the model.

We further hypothesize that humanization could positively moderate the effect of expertise because it can lower the need for internal attribution.

## **Summary of Findings**

Manipulation checks for humanization and option for customization were successful. We used Mplus 8 (version 1.7) to perform the analysis with adherence as the dependent variable, option for customization and humanization as independent variables, trust as the mediator, familiarity as the moderator and gender and age as control variables. The model yielded chi-square of 5.10 (d.f. = 1,  $p = 0.024$ ), CFI of 0.987, SRMR of 0.01 and RMSEA of 0.127 (90% CI: [0.037, 0.245]). The above statistics indicated a good fit to the data. The results indicated that the effect of option for customization on adherence was significantly positive ( $b = 0.179$ ,  $p < 0.001$ ) but the effect of humanization on adherence was not significant ( $b = -0.001$ ,  $p = 0.923$ ). The effect of option for customization on trust was positively marginally significant ( $b = 0.101$ ,  $p = 0.05$ ), while the effect of humanization on trust ( $b = 0.02$ ,  $p < 0.001$ ) and the effect of trust on adherence ( $b = 0.652$ ,  $p < 0.001$ ) were significantly positive, showing that trust fully mediated the effect of humanization and partially mediated the effect of option for customization on adherence. Finally, Logg et al., (2019) predicted, people familiar with investments were less likely to accept the robo-advisor. However, humanization could moderate the effect of expertise. The interaction of humanization and experience was marginally significant ( $b = 0.002$ ,  $p < 0.1$ ).

### **Key Contributions**

In our research setting, we find that the positive effects of humanization are truly insightful. First, we have explored two types of humanization strategies and find that an AI's

conversation ability is more effective than having an identity/name. Previous research has bundled the two together, overweighing the importance of identity (e.g., Go and Sundar, 2019; Kim & Sundar, 2012) without factoring in the concern for empathy. In other words, natural and lively conversations with an AI are more likely to bring about a sense of empathy towards fulfilling a customer's needs. Additionally, previous research has shown that expertise has negative effects towards the adoption of AI services due to internal attribution (Logg et al., 2019), causing experts to believe that using AI services discredits their expertise and performance (i.e., internal attribution). Our findings contribute this stream of research by showing that humanizing AI services could be a possible remedy in that it causes consumers to believe that the AI is their partner, ultimately mitigating their need for the internal attribution and increasing adoption rate.

## **TURNING A PILE OF BRICKS INTO A TRUE EDIFICE: AN INNOVATIVE METHOD FOR EXHAUSTIVE REVIEWS**

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**Keywords:** Literature Review, Grounded Theory, Meta-model, Meta-theory, Integrative reviews

**Description:** To address issues of over-complexity, fragmentation, and lack of business relevance in Marketing research, we propose an innovative method for conducting rigorous reviews representative of past literature and building integrative meta-models: The Grounded Theory Literature Review method.

### **EXTENDED ABSTRACT**

#### **Research Question**

Several authors have highlighted an issue of fragmentation and over-complexity in marketing and management sciences. Whitley (1984) describes a situation of “fragmented adhocracy”, i.e., having successive research studies without overall coherence and collective orientation. This matter of over-complexity with scattered studies is an issue for marketing research, but also for practice as it is too complex for companies to gain insight directly from the research. “Instrumental relevance is based on the reduction of complexity” (p.1273, Nicolai and Seidl,



2010). As highlighted by Parasuraman (2003), it is thus crucial to disseminate knowledge by synthesizing and propagating it properly. Literature reviews can help to achieve these goals and engage with practitioners by providing them with a clear summary of research results (Templier and Paré, 2015). Various methods exist to conduct literature reviews, but we show in this paper that today they are not equipped to effectively produce consistent states of the art and better reach practitioners. We thus seek to understand how we can improve the capacity of research to propose integrative views, by answering the following research question: *What rigorous method can best assist researchers in providing comprehensive reviews to help companies understand research outcomes better and make more informed decisions?*

### **Method and Data**

To address the research question, we examine the entire range of literature review methods employed in marketing to identify what method can help improving the ability to reduce complexity and reach practitioners more efficiently. To do so, we researched the keyword “Marketing literature review” in EBSCO and Web of Science, without any time limit. The objective was to identify as many literature reviews as possible that were published in marketing journals or in more general management journals but dealing with marketing topics. After analyzing 2,972 search results, we retained a total of 464 marketing literature reviews. The other non-retained search results are either repetitions of results between the two databases, or articles that are not literature reviews and/or not related to marketing. The 464 papers were subsequently carefully coded in a coding grid to capture the type of journal, methods and analyses used, topics and results, number of articles used for the review, the existence or not of a method section, etc. Three main attributes helped to distinguish and classify the different reviews: (1) the design of the review, (2) the purpose of the review, and (3) the analyses employed.

## **Summary of Findings**

From our analysis, whatever are their design, objective, or type of analysis, almost all existing marketing reviews meet at least one of the five pitfalls we have identified with precise criteria: (1) a lack of rigor, (2) a lack of practical relevance, (3) a lack of transparency in variables selection, (4) a listing effect and (5) a too specific research. Only 14 out of the 464 analyzed studies, were free of any of these pitfalls. However, among these 14 reviews, we observed a lack of a common approach when reducing the complexity, as the authors proceed in their own way, leading to heterogeneous results. This lack of consistency between reviews for a same topic represents a serious issue as the goal is to provide a comprehensive view to inform decision-making. Such heterogeneous reviews do not help to overcome research fragmentation; instead, they create a second level of fragmentation, i.e., a fragmentation at the reviews' level. Overall, our analysis reveals that we are missing a rigorous common approach with precise guidelines to avoid excessive variations in the results. It is thus urgent to propose a precise step-by-step method to help reducing the complexity rigorously and in a consistent and practice-relevant fashion.

## **Statement of Key Contributions**

Today, existing marketing research methods for conducting literature reviews are not totally equipped to reduce complexity consistently and reach practitioners in an efficient manner. To fill this gap, we propose in this paper an innovative method that helps to best address both the issues of business relevance and research fragmentation with a greatest impact: The Grounded Theory Literature Review method. This method, which is currently only known in the Information Systems field, has interesting potential for management disciplines like marketing sciences. Its rigorous approach, composed of five clear steps and three pre-defined coding types, provides a common clear framework and a more precise and consistent procedure for

identifying concepts, creating categories and eventually propose integrative meta-models. This results in more consistent, reproducible, and less biased reviews both relevant for marketing research and practice. In this paper we propose therefore to enrich the marketing discipline by disseminating and adapting a promising method to marketing issues. This paper contributes both to the academe by providing a methodological basis for future rigorous, integrative, and practical oriented reviews, but also to the practitioners who will have access to more relevant and clearer research.

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