

**FEDERATION OF BUSINESS DISCIPLINES**



Association of Collegiate Marketing Educators

**PROCEEDINGS OF THE 50<sup>TH</sup> ANNUAL MEETING OF THE  
ASSOCIATION OF COLLEGIATE MARKETING  
EDUCATORS**

**Houston, Texas  
MARCH 6-10, 2023**

**ISSN: 2476-2555**

**Weixing Ford  
Texas A & M University – San Antonio  
Proceedings Editor**

**Lilly Ye  
Frostburg State University  
Program Chair**

**PROCEEDINGS OF THE 50<sup>TH</sup> ANNUAL MEETING  
OF THE ASSOCIATION OF COLLEGIATE MARKETING EDUCATORS**

**Houston, Texas  
Mach 6-10, 2023**

**ACME Officers for 2022-2023**

President	Rajasree K. Rajamma, Fairfield University, Fairfield, Connecticut
Program Chair	Lilly Ye, Frostburg State University, Frostburg, Maryland
Vice President of Membership, and Associate Program Chair	Atefeh Yazdanparast Ardestani, Clark University, Worcester, Massachusetts
Secretary, and Director of Communications	Zhenning “Jimmy” Xu, California State University, Bakersfield, California
Treasurer	Sanjay S. Mehta, Sam Houston State University, Huntsville, Texas
Executive Director	Renée Gravois, Sam Houston State University, Huntsville, Texas
Immediate Past President	Türkan Dursun-Kilic, West Texas A&M University, Canyon, Texas

**Proceedings Editor**

Weixing M. Ford Texas A&M University – San Antonio, Texas

**Webmaster**

Stacey Bolin East Central University, Ada, Oklahoma

**PROGRAM PLANNING COMMITTEE 2022-2023 MEMBERS:**

Lilly Ye	Program Chair Frostburg State University, Frostburg, Maryland
Atefeh Yazdanparast Ardestani	Vice President for Membership and Associate Program Chair Clark University, Worcester, Massachusetts
Renée Gravois	Executive Director Sam Houston State University, Huntsville, Texas
Yiming Zhuang	Frostburg State University, Frostburg, Maryland

**Board of Directors**

Mel F. Zuberi Tarleton State University, Stephenville, Texas, and Keller Williams St. Pete Realty, St. Petersburg, Florida

## Proceedings of the Association of Collegiate Marketing Educators (2023)

Renée Gravois

Sam Houston State University, Huntsville, Texas

Irfan Ahmed

Sam Houston State University, Huntsville, Texas

Vivekshankar Natarajan

Lamar University, Beaumont, Texas

Vaidas Lukosius

Tennessee State University, Nashville, Tennessee

*All authors retain their original copyrights for materials presented in this Association of Collegiate Marketing Educators Proceedings and papers are included herein with the permission of the authors. Any reproduction beyond the fair use doctrine recognized by United States copyright statute and case law is prohibited without the explicit permission of the author or authors of material to be reproduced.*

## **EDITORIAL PREFACE**

---

This year ACME 50<sup>th</sup> Conference Proceedings is covering 17 tracks with 110 submissions, extended abstracts, and papers from researchers around the world. It is a true pleasure to witness flourishing diversity in topics and extended number of tracks.

I would like to thank everyone who participated in, helped with, and arranged the 2023 Association of Collegiate Marketing Educators conference. Huge thank you goes to all Track Chairs and reviewers for completing review process and their expert critiques within short period of time.

I also wish to extend my appreciations to all authors for their timely submissions and adherence to our Proceedings standards.

Last, but not least, I wish to acknowledge passion, encouragement and continued support of ACME Program Chair, Lilly Ye.

### **Weixing Ford**

ACME Proceedings Editor 2022-2023

Texas A & M University –San Antonio

Texas, USA

## MESSAGE FROM THE PRESIDENT

---

Dear ACME Community,

Welcome to the ACME 2023 Business Planning Meeting and Award Ceremony. I am happy to see you all here this year as normalcy has started returning to the conference world. It is my great pleasure to stand before you today to present the President's report on this momentous occasion as we celebrate the golden jubilee of our organization.

It has been 50 years since ACME was founded, and I am proud to say that we have come a long way since then. Our achievements over the past 50 years are a testament to the hard work and dedication of our members, and our leaders and I am grateful for all that you have done to contribute to our success.

One of the most notable achievements of the past year has been our growth. Our membership has increased and we have expanded our reach to new regions across the world. Many thanks to the terrific program created by Dr. Lilly Ye, Dr. Atefeh Yazdanparast, with the help and support of other ACME officers.

This year for the first time, we will be honoring an esteemed colleague in marketing with the ACME Trailblazer Award for Impactful Contributions in Marketing. This award honors a person who has been a true trailblazer, an academician who has blazed a trail for others to follow; a pathfinder; a pioneer in the field of field of marketing. We are extremely happy and honored to award our inaugural Trailblazer award to a true pioneer in the field of marketing, Dr. Gerald Zaltman!

Another exciting development this year was the launch of our new website. The website has been designed with the user experience in mind, making it easier to navigate and access information. In addition to all our social media platforms, this website will enable our members to access resources, and stay informed about our events and activities. A huge thanks to Drs. Mel Zuberi, Zhenning Xu, and Renee Gravois for making this happen.

A million thanks to our hardworking officers, Lilly Ye, Atefeh Yazdanparast, Zhenning Xu, Sanjay Mehta, Renee Gravois, Irfan Ahmed, Yiming Zhuang, and Turkan Kilic. These folks worked tirelessly throughout the year to make this conference possible. We are also grateful to our hardworking track chairs, every person who submitted their work to this conference, and those die-hard loyalists, ACME members who have been attending the conference year after year after year. Your enthusiasm is what energizes the rest of us to offer a good conference every year. Thank you so much!

We are honored to have had four outstanding and inspiring plenary speakers at our conference, and we offer them our sincerest thanks. Dr. Gerald Zalman, Mr. Simon El Hage, Dr. Alan Walker and Dr. Lou Pelton, thank you!

Our deep gratitude goes to Dr. Zhan Li, Dean of the Dolan School of Business, Fairfield University for sponsoring our Golden Jubilee celebrations. Many thanks to dataSpring, Asia's leading panel provider for sponsoring our flagship award, ACME dataSpring Teaching Innovation Competition Award. We

## Proceedings of the Association of Collegiate Marketing Educators (2023)

are also grateful to Stukent, the Digital courseware provider who we are all familiar with, for organizing and sponsoring the Industry Trends panel.

As we look back over the past fifty years, we are reminded of the many individuals who have contributed to our success and helped shape the organization into what it is today.

In particular, we would like to take a moment to recognize the past presidents of our organization. These individuals have provided leadership, guidance, and inspiration to our members and have played a critical role in our achievements over the years. Their dedication and commitment to our cause have been instrumental in our growth and success. Thank you to all those who helped shape ACME to what it is today.

As we look forward to the next 50 years, we are committed to continue our growth and adaptation to the ever-changing landscape of marketing and academia. We will continue to strive to foster a sense of community and will also be exploring new opportunities to provide more value to our members and expand our reach to new regions of the world.

In conclusion, this has been a year of celebration and growth for our organization. I am proud of all that we have accomplished, and I look forward to continuing to work together with all of you to achieve our mission. Thank you for your ongoing support and dedication. 50-years-old and at the top of your game, ACME! Well done! Here is to an incredible 50 more!

Sincerely

Rajasree K. Rajamma Ph.D.

President – ACME 2022-23

Professor,  
Dolan School of Business  
Fairfield University  
Fairfield, CT - 06824

## MESSAGE FROM THE PROGRAM CHAIR

---

Dear ACME Colleagues,

It was a great pleasure to celebrate the 50<sup>th</sup> birthday of ACME with you at the 50<sup>th</sup> annual conference in Houston Texas. During the conference, we had the privilege of hearing from some of the brightest minds in marketing, learning about the latest trends, and discussing the future of marketing. We are grateful for all the support we received from ACME members for making the conference a great success.

Moving toward normalcy after three years of pandemic challenge, we entertained the idea of a manageable hybrid conference, a new approach that includes both online and on-ground sessions. Though we needed to venture some unfamiliar terrain to make the conference more inclusive, we were fortunate to have the support from our patrons around the world. As a result, we had ten online sessions and 22 on-ground sessions at the conference, and both were well attended. Specifically, we had 110 submissions in 17 tracks, with over 200 authors from ten different countries. We are also proud of the milestone keynote presentations of Dr. Gerald Zaltman on Open or Closed? You Mind, Your Choice! and Mr. Simon El Hage on Expanding Boundaries: Marketing to the New America.

The success of the conference would not have been possible without the tireless works of ACME officers and program committee members. My heartfelt thanks to all the ACME officers for their dedication and guidance as we went through the ups and downs throughout the year, planning the conference. I could not thank the wonderful program committee team, Rajasree, Renee, Atefeh, and Yiming, enough. Thank you for the relentless works in many long days and nights, and for your attention to details to build such a wonderful program together!

A huge thank you to the excellent team of track chairs who started their work in June 2022, and their hard work ensured not only the increased number of submissions, but also the robust and relevant research articles submitted. We also would like to express our sincere appreciations to the session chairs who helped run the conference smoothly.

Special thanks to our 49 reviewers for their valuable insights and suggestions that helped improve each ACME submission. And of course, thank you, all ACME authors and members for supporting us in every possible way. Your participation is the reason that we have a highly engaging and collegiate conference. We specially want to thank our international participants, with around 30, showing that ACME is paving its way to an international conference.

Our profound gratitude also goes to our amazing sponsors. Thank you, Fairfield University Dolan School of Business for sponsoring the Golden Jubilee Celebration, thank you, dataSpring Inc. for sponsoring dataSpring Teaching Innovation Competition, and thank you, Stukent, for sponsoring the industry trend and course adaptation session. Your generosity helped create a great sense of community and collegiality at the conference.

## Proceedings of the Association of Collegiate Marketing Educators (2023)

Finally, congratulations for all the award winners, including the inaugural Trailblazer Award Winner, Dr. Gerald Zaltman, Outstanding Educator Award winner, Dr. Adam Mills, Best Conference Award winners, Dr. Chengyi Le and his team from East China Jiaotong University, dataSpring Teaching Innovation Competition winners, Dr. Brooke Reavey and Dr. Sheri Lambert, and the winners of best in track papers. Congratulations to you for your excellent contributions to marketing academia, motivating all of us to do better and be better.

In conclusion, this conference was more than just a series of presentations and workshops. It was an opportunity to connect with colleagues, expand our networks, and foster new collaborations. The energy and passion during the conference was truly inspiring, and we are confident that we all left this conference with new ideas, fresh perspectives, and a renewed sense of purpose. While we are moving forward to the next 50 years of ACME, let's take the knowledge and insights we have gained at this conference and put them into practice in our daily work. Let us continue to learn, grow, and innovate in the dynamic and exciting field of marketing.

Thank you all! We are Looking forward to seeing you in Galveston in 2024!

Sincerely,

Lilly Ye

Program Chair, ACME 2022-2023

Professor of Marketing  
Frostburg State University  
Frostburg MD 21532



**ASSOCIATION OF COLLEGIATE  
MARKETING EDUCATORS**

**2023 INAUGURAL ACME TRAILBLAZER AWARD**

Gerald Zaltman, Harvard University, Cambridge, Massachusetts

**2023 FEDERATION OF BUSINESS DISCIPLINES DISTINGUISHED PAPER  
AWARD**

*Analysis of Influencing Factors of Patient's Online Doctor Selection Behavior from the Dual-Path Perspective – Taking the Psychiatric Patients of Haodf.com as an Example*

Chengyi Le, East China Jiaotong University, Nanchuang, China  
Shan Li, East China Jiaotong University, Nanchuang, China  
Feiyan Qiu, East China Jiaotong University, Nanchuang, China  
Zhenhao Zhang, East China Jiaotong University, Nanchuang, China  
Xinya Zhu, East China Jiaotong University, Nanchuang, China

**2023 FEDERATION OF BUSINESS DISCIPLINES OUTSTANDING EDUCATOR  
AWARD**

Adam Mills, Loyola University, New Orleans, Louisiana

**BEST PAPER IN TRACK AWARD WINNERS**

**Consumer Behavior and Psychology Track**

*“My Morality Do Not Allow Me Putting Others at Risk”: Moral Obligation as A Mediator Between the Big 5 Personality Traits and Shopping Destinations*

Swagata Chakraborty, University of North Texas, Denton, Texas  
Amrut Sadachar, University of North Texas, Denton, Texas

**Logistics and Supply Chain Management Track**

*Management Of Shipping Logistics: A Warning Model*

Yiran Liu, University of International Business and Economics, Beijing, China  
Yang Lu, Beijing Technology and Business University, Beijing, China

**Marketing Education and Experiential Learning Track**

*“Bridging the Gap” for Business Students’ Quantitative Skills with the Motivation-Implementation-Reflection-Reinforcement Loop*

Weixing Ford, Texas A & M University - San Antonio, Texas, USA

**Student Research Track**

*“Analysis of Influencing Factors of Patients’ Online Doctor Selection Behavior from the Dual-Path Perspective*

Chengyi Le, East China Jiangtong University, Nanchang, China

Shan Li, East China Jiangtong University, Nanchang, China

Feiyan Qiu, East China Jiangtong University, Nanchang, China

Zhenhao Zhang, East China Jiangtong University, Nanchang, China

Xinya Zhu, East China Jiangtong University, Nanchang, China

**ASSOCIATION OF COLLEGIATE  
MARKETING EDUCATORS**

**Track Chairs**

*Thank you to the ACME Track Chairs for 2022-2023. ACME greatly appreciates your service!*

*ADVERTISING AND INTEGRATED MARKETING COMMUNICATIONS*

**Brooke Reavey**, Dominican University  
**Eric Van Steenburg**, Montana State University

*BRANDING AND BRAND MANAGEMENT*

**Pramod Iyer**, Kennesaw State University  
**Lei Zhao**, Zhejiang University of Technology

*CONSUMER BEHAVIOR AND PSYCHOLOGY*

**Lili Gai**, The University of Texas Permian Basin  
**Jiani Jiang**, Concordia College

*DATA DRIVEN MARKETING FOR CONSUMER INSIGHTS*

**Jasmine Parajuli**, University of Mississippi  
**Zhenning “Jimmy” Xu**, California State University

*FASHION MARKETING AND MERCHANDISING*

**Sua Jeon**, Texas Wesleyan University

*GLOBAL MARKETING*

**Aisha Ghimire**, University of Mississippi  
**Daniel Rajaratnam**, University of Texas at Dallas

*PUBLIC POLICY, SUSTAINABILITY, AND SOCIAL RESPONSIBILITY*

**Julie Haworth**, University of Texas at Dallas  
**Hong Wang**, Hubei University of Economics

*LOGISTICS AND SUPPLY CHAIN MANAGEMENT*

**Yolanda Obaze**, University of Evansville  
**Yiming Zhuang**, Frostburg State University

*MARKETING EDUCATION AND EXPERIENTIAL LEARNING*

**Adam J. Mills**, Loyola University

*MARKETING STRATEGY, NEW PRODUCT DEVELOPMENT, AND INNOVATION*

**Prashant Srivastava**, University of Tennessee at Chattanooga  
**Gina Tran-Stafford**, Florida Gulf Coast University

*PERSONAL SELLING AND SALES MANAGEMENT*

**J. Ricky Ferguson**, Indiana State University  
**Michael Rodriguez**, Campbell University

*RETAILING AND ELECTRONIC COMMERCE*

**Joyce Zhou**, University of Louisiana

*SERVICES, TOURISM AND HOSPITALITY MARKETING*

**Jeff Christensen**, Brigham Young University-Hawaii

**Jingxian “Kelly” Jiang**, Texas A&M University

*SOCIAL MEDIA, MOBILE MARKETING, AND DIGITAL MARKETING*

**Scott D. Roberts**, University of the Incarnate Word

**Sphurti Sewak**, Florida International University

*SPORTS AND RECREATIONAL MARKETING*

**Chris Croft**, University of Southern Mississippi

**Wei Wang**, University of Southern Mississippi

*STUDENT RESEARCH*

**David Rylander**, Texas Woman’s University

**Shu Xu**, Hunan University of Technology and Business

*SPECIAL SESSION, PANEL DISCUSSION, AND WORKSHOPS*

**Vaidas Lukosius**, Tennessee State University

**ASSOCIATION OF COLLEGIATE  
MARKETING EDUCATORS**

**ACME 2023 Reviewers**

*ACME thanks each of the following colleagues for their valuable service in reviewing submissions for our 2023 ACME Conference!*

**Alison Fridley**, University of South Mississippi

**Andrea Bennett**, Texas Women's University

**Changqing Wu**, Hubei University of Economics

**Charlotte Allen**, Stephen F. Austin State University

**Chenchen Huang**, Frostburg State University

**Chengming Hu**, St. Ambrose University

**Chunxiang Liu**, Zhongnan University

**Debika Sihi**, Southwestern University

**Dee Knight**, University of North Texas

**Fernanda Muniz**, Texas Woman's University

**Gail Hudson**, Arkansas State University

**Gina Brynildsen**, Sam Houston State University

**Hong Wang**, Hubei University of Economics

**Hongzhai Xu**, Hunan Agricultural University

**Jackie Eastman**, Florida Gulf Coast University

**Jan Bethea**, Springfield College

**Jeffrey Radighieri**, Texas Woman's University

**Jun Yu**, University of Louisiana Monroe

**Ken Cheng**, Zhejiang University of Technology

**Lei Zhao**, Zhejiang University of Technology

**Lili Gai**, University of Texas Permian Basin

**Liping Fu**, Hunan Finance and Economics University

**Luis Matosas Lopez**, University of Rey Juan Carlos

**Margaret Young**, Texas Woman's University

**Min Huang**, Hunan Humanity and Science International Cooperative Center

**Mostofa Wahid Soykoth**, Emporia State University

**Pushkala Raman**, Texas Woman's University

**R. Douglas Manning**, California State University

**Rajasree Rajamma**, Fairfield University

**Rebecca Chory**, Frostburg State University

**Roberto Saldivar**, University of the Incarnate Word

**Sabrina Reed**, University of Southern Mississippi

**Sarath Nonis**, Arkansas State University

**Seth Ketron**, University of North Texas

**Shanshan Zhang**, Zhejiang University of Technology

**Shivam Agarwal**, Florida International University

**Sudipto Sarkar**, Frostburg State University

**Tao Jiang**, Zhejiang University of Science and Technology

**Tim Wilson**, Bethel University

**Todd Haderlie**, Florida International University

**Vipul Garg**, University of North Texas

**Wei Cai**, East China University of Technology

**Weixing Ford**, Texas A&M University-San Antonio

**Wenjun Yu**, North Border University

**Xixi Li**, Saint Louis University

**Yang Lu**, Beijing Technology and Business University

**Yiming Zhuang**, Frostburg State University

**Yolanda Obaze**, University of Evansville

**TABLE OF CONTENTS**

**BEST PRACTICE IN MARKETING EDUCATION** \_\_\_\_\_ **21**

MENTAL HEALTH AMONG COLLEGE STUDENTS: QUALITY OF RELATIONSHIPS WITH OTHERS, ENVIRONMENT, AND TRANSCENDENCE \_\_\_\_\_ 21  
Sarath Nonis, Arkansas State University, Jonesboro  
Gail Hudson, Arkansas State University, Jonesboro

THE IMPACT OF INTENTIONAL PROSOCIAL (WELLNESS) BEHAVIOR ON COLLEGE AND HIGHSCHOOL STUDENTS \_\_\_\_\_ 24  
Bela Florenthal, William Paterson University  
Lisa Chestnutt, Butler High School

WHICH CLASS SHOULD I TAKE? A MINORITY STUDENT PERSPECTIVE ON COURSE CHOICES IN POST-COVID EDUCATIONAL ENVIRONMENT \_\_\_\_ 27  
Vaidas Lukosius, Tennessee State University  
Ramaprasad Unni, Tennessee State University

EQUITY AND ETHICAL CONSIDERATIONS WHEN IMPLEMENTING A FLIPPED SOCIALLY DISTANCED CLASSROOM \_\_\_\_\_ 29  
Dawn McKell, Auburn University at Montgomery

MENTORING: ANTECEDENTS AND CONSEQUENCES, APPLICATOINS IN A SALES/MAREKTING CAREER \_\_\_\_\_ 43  
Anshu Saran, The University of Texas Permian Basin  
Madison Valverde, The University of Texas Permian Basin  
Linda Chepkemboi, The University of Texas Permian Basin

“BRIDGING THE GAP” FOR BUSINESS STUDENTS’ QUANTITATIVE SKILLS WITH THE MOTIVATION-IMPLEMENTATION-REFLECTION-REINFORCEMENT LOOP \_\_\_\_\_ 46  
Weixing Ford, Texas A & M University –San Antonio

THE IMPORTANCE OF STRATEGIC PLANNING AND COLLABORATION IN SUSTAINABILITY AND SOCIAL RESPONSIBILITY CLASSROOM PROJECTS: EXAMPLES FROM APPALACHIA \_\_\_\_\_ 47

**BRANDING STRATEGY** \_\_\_\_\_ **48**

IDENTIFYING POSITIONING STRATEGIES FOR HIGHER EDUCATION IN A TIME OF DISRUPTION: THE CASE OF ONLINE CONSORTIUM OF INDEPENDENT COLLEGES AND UNIVERSITIES (OCICU) \_\_\_\_\_ 48  
Adam Guerrero, The University of the Incarnate Word  
Scott Roberts, The University of the Incarnate Word  
Alex Rodriguez, Outcomes4Me

I SMELL LUXURY: ENHANCING THE DESIRABILITY OF SUSTAINABLE PRODUCTS	56
Mona Safizadeh Shabestar, Azad University of Tehran, Iran Atefeh Yazdanparast, Clark University, USA Pramod Iyer, Kennesaw State University, USA	
REGIONAL LOYALTY AND FORGIVENESS: DOES ORIGIN OF A BRAND MATTER?	60
Komal Karani, Lamar University	
<b>CONSUMER BEHAVIOR AND PSYCHOLOGY</b>	<b>62</b>
ON THE APPLICATION OF MICRO EXPRESSION PSYCHOLOGY IN INSURANCE SALES	62
Zhe Chen, Hunan University of Technology and Business Lei Zhang, Modern Wealth Capital Management Co., Ltd	
THE PERSISTENCE OF CONSUMER ETHNOCENTRISM IN AMERICAN CONSUMERS	69
John Story, University of St. Thomas, Houston Lynn Godwin, University of St. Thomas, Houston	
“MY MORALITY DO NOT ALLOW ME PUTTING OTHERS AT RISK”: MORAL OBLIGATION AS A MEDIATOR BETWEEN THE BIG 5 PERSONALITY TRAITS AND SHOPPING DESTINATIONS	72
Swagata Chakraborty, University of North Texas Amrut Sadachar, Auburn University	
THE ROLE OF LOVE GIFT-GIVING IN CONSUMERS’ UNIQUENESS SEEKING	74
Lilly Ye, Frostburg State University Yiming Zhuang, Frostburg State University Lili Gai, University of Texas at Permian Basin	
THE IMPACT OF MINDFULNESS ON SOCIAL COMPARISON AND SAVINGS	75
Stephen Juma, Southern Arkansas University, Arkansas Gerald Plumlee, Southern Arkansas University, Arkansas	
CONSUMERS’ RESPONSES TO PERSONALIZED SOCIAL NETWORK ADS: A PRIVACY CALCULUS PERSPECTIVE	77
Mona Safizadeh Shabestar, Azad University of Tehran, Iran Atefeh Yazdanparast, Clark University, USA	
NEW OUTCOMES ON THE IMPACT OF POLITICAL PARODIES TO MOCK A POLITICIAN: THE MEDIATING ROLE OF MORAL-CONDEMNING EMOTIONS	80
Nadr El Hana, EDC Paris Business School, France Ouidade Sabri, Sorbonne Business School, Paris, France	



Silvia L. Martin, California State University, Los Angeles

HUMOR AND CONTROVERSY IN ONLINE MEDIA: WOULD THEY SAY THAT IN THE NEWSPAPER? \_\_\_\_\_ 81

Sphurti Sewak, Florida International University

Scott D. Roberts, The University of the Incarnate Word

SPIRITUALITY, THE TRANSCENDENT SELF, AND ADVERTISING \_\_\_\_ 85

Danny Upshaw, Northwestern State University of Louisiana

Anna Upshaw, Northwestern State University of Louisiana

Marcia Hardy, Northwestern State University of Louisiana

Catherine Fauchaux, Northwestern State University of Louisiana

**DIGITAL AND SOCIAL MEDIA MARKETING \_\_\_\_\_ 88**

ANALYSIS OF INFLUENCING FACTORS OF PATIENTS' ONLINE DOCTOR SELECTION BEHAVIOR FROM THE DUAL-PATH PERSPECTIVE \_\_\_\_\_ 88

Chengyi Le, East China Jiaotong University, China

Shan Li, East China Jiaotong University, China

Feiyan Qiu, East China Jiaotong University, China

Zhenhao Zhang, East China Jiaotong University, China

Xinya Zhu, East China Jiaotong University, China

CAN VISUAL LANGUAGE CONVEY TACTILE EXPERIENCE? A STUDY OF THE TACTILE COMPENSATION EFFECT OF VISUAL LANGUAGE FOR ONLINE PRODUCTS \_\_\_\_\_ 91

Leng Xionghui, East China Jiaotong University

Zhou Xiaoyu, East China Jiaotong University

Du Ping, East China Jiaotong University

He Yajing, East China Jiaotong University

VIRTUAL REPUTATION MANAGEMENT TACTICS AND SOCIAL MEDIA BEHAVIOR \_\_\_\_\_ 124

Atefeh Yazdanparast, Clark University, USA

Gina A. Tran, Florida Gulf Coast University, USA

EXPLORING THE USE OF EMOJI IN DIGITAL CONTENT MARKETING: THE CONSUMER PERSPECTIVE \_\_\_\_\_ 127

Qin Sun, California State University, Northridge

Rajasree K. Rajamma, Fairfield University, Fairfield

Lin Lu, Fairfield University, Fairfield

DATA ANALYTICS: A PUBLIC OPINION EVENT EXTRACTION MODEL \_\_ 129

Qing Chuan Zhang, Beijing Technology and Business University

Si Wei Wei, Beijing Technology and Business University

Zi Han Li, Beijing Technology and Business University

Wen Jing Yan\*, Beijing Technology and Business University

HAVE WE REACHED A PRIVACY PLATEAU? CONSUMERS' EVOLVING  
PRIVACY CONCERNS AND THEIR ALIGNMENT WITH INCREASED STATE  
REGULATIONS\_\_\_\_\_130

Debika Sihi, Southwestern University

**GLOBAL MARKETING AND CULTURE \_\_\_\_\_133**

US AND GHANAIAN COLLEGE STUDENTS' PERCEPTIONS OF  
ADVERTISING-IN-GENERAL\_\_\_\_\_133

Charles Blankson, University of North Texas, United States

Robert A. Opoku, Red Deer Polytechnic, Canada

Julius A. Nukpezah, Mississippi State University, United States

A CROSS-NATIONAL STUDY OF THE CONSUMPTION OF CREDIT  
CARDS\_\_\_\_\_138

Outi Katariina Juusola, Ajman University, United Arab Emirates

Kwabena G. Boakye, Georgia Southern University, United States

Charles Blankson, University of North Texas, United States

Guangming Cao, Ajman University, United Arab Emirates

IMPACT OF JAY CUSTOMER ON FRONTLINE EMPLOYEES: A  
QUALITATIVE & QUANTITATIVE STUDY OF INDIAN HOSPITALITY  
INDUSTRY\_\_\_\_\_141

Apoorva, National Institute of Industrial Engineering

Ranjan Chaudhuri, Indian Institute of Management

ATTRIBUTION IN THE PATH TO PURCHASE: A FRAMEWORK FOR A POST-  
COVID WORLD\_\_\_\_\_160

Judith Cardona Forney, University of North Texas

Dee K. Knight, University of North Texas

COMPREHENSIVE EVALUATION OF LAND INTENSIVE USE LEVEL IN  
LARGE AND MEDIUM SIZED CITIES IN CHINA\_\_\_\_\_164

Wei Cai, East China University of Technology

Xinxin Zhang, Jiangxi V&T College of Communication

Xichao Zhao, Guangxi University of Finance and Economics

RESEARCH ON THE CHINA-AFRICA ECONOMIC AND TRADE TALENT  
CULTIVATION MODE INNOVATION IN HUNAN UNIVERSITIES, CHINA  
WITH THE BACKGROUND OF DIGITAL ECONOMY\_\_\_\_\_168

Wang Nan, Hunan University of Technology and Business

Chen Yang, Hunan University of Technology and Business

Jafaru Abdul Manan, Hunan University of Technology and Business

HOT TOPICS AND EVOLUTION TREND OF RESEARCH ON URBAN  
AGGLOMERATIONS IN THE MIDDLE REACHES OF THE YANGTZE RIVER  
IN CHINA\_\_\_\_\_170

Shu Xu, Hunan University of Technology and Business

Min Jiang, Hunan University of Technology and Business

Nan Wang, Hunan University of Technology and Business

ANALYSIS OF THE INTERNAL CAUSES OF CAPITAL CHAIN BREAKAGE  
IN ENTERPRISES AND ITS ENLIGHTENMENT: A CASE STUDY OF THE  
CFLD\_\_\_\_\_172

Ziqi Tang, Hunan University of Technology and Business

Shu Xu, Hunan University of Technology and Business

EXAMINING LEADERSHIP STYLES IN CHINESE TEXTILE ENTERPRISE:  
THE CASE STUDY OF RESPECT WOLF LTD\_\_\_\_\_185

Liping Zeng, Hunan University of Technology and Business

Min Jin, Hunan University of Technology and Business

Tanaka Murukai, Hunan University of Technology and Business

Mbalaka Albert Mwambala, Hunan University of Technology and Business

COMPETITIVE ADVANTAGE THROUGH AI AND BIG DATA TECHNOLOGY  
IMPLEMENTATION\_\_\_\_\_199

Goldar Lenjeu Chefor, University of Mississippi

RESOURCE COORDINATION AND TOE FOR IMPLEMENTATION OF AUDIT  
RECOMMENDATIONS: A CASE STUDY OF ENVIRONMENTAL AUDIT IN  
CHINA\_\_\_\_\_218

Ronghua Xu, Ningbo University

Jing Zhu, Ningbo University

Mengting Liu, Ningbo University

## **MARKETING CHANNEL AND SUPPLY CHAIN MANAGEMENT\_\_\_\_\_219**

SUPPLY CHAIN CO-BRANDING: VALUE PERCEPTIONS OF THIRD-PARTY  
LOGISTICS SERVICE PROVIDERS\_\_\_\_\_219

Yolanda Obaze, University of Evansville, Indiana

STRATEGIC RESOURCES, SUPPLY CHAIN AGILITY, AND OPERATIONAL  
PERFORMANCE: MODERATING ROLE OF SUPPLY UNCERTAINTY\_236

Karthik NS Iyer, University of Northern Iowa

Prashant Srivastava, University of Tennessee at Chattanooga

WATER MANAGEMENT: A STUDY FROM STAKEHOLDER'S  
PERSPECTIVE\_\_\_\_\_238

Senchang Hu, Tsinghua University

Wenzhe Tang, Tsinghua University

## **MARKETING STRATEGY\_\_\_\_\_239**

SAFETY CULTURE: EFFECTS ON CUSTOMER/EMPLOYEE SATISFACTION  
AND FIRM PERFORMANCE \_\_\_\_\_ 239

Taehoon Im, Sam Houston State University

Vikas Mittal, Rice University

Shrihari Sridhar, Texas A & M University

THE DEVELOPMENT OF ENTREPRENEURIAL MARKETING  
THOUGHT \_\_\_\_\_ 242

Jun Yu, University of Louisiana Monroe

Joyce Zhou, University of Louisiana Monroe

BITCOIN AS DIGITAL GOLD (STUDY ON THE LIMITATION OF BITCOIN AS  
OFFICIAL CURRENCY) \_\_\_\_\_ 245

Moonhwa Cho, University of International Business and Economics

Samuel Jung, University of International Business and Economics

Jason Chung, University of International Business and Economics

**RETAILING AND SERVICES \_\_\_\_\_ 246**

PREFERENCE FOR ONLINE SHOPPING: THE INFLUENCE OF PERSONAL  
TRAINTS AND PRODUCT TYPES \_\_\_\_\_ 246

Yong Zhang, Hofstra University

EXPLORING SHOPPERS' DECISION-MAKING STYLES AND ACCEPTANCE  
IN AN OMNICHANNEL ENVIRONMENT \_\_\_\_\_ 248

Aisha Muthaffar, The University of Newcastle & Umm AL-Qura University

Sonia Vilches-Montero, The University of Newcastle

THE EFFECT OF PERCEIVED INTELLECTUAL CAPITAL ON VALUE CO-  
CREATION IN THE METAVERSE \_\_\_\_\_ 262

Soo-kyoung Ahn, Chonnam National University, Korea

Sua Jeon, Texas Wesleyan University, U.S.A

Eun-jeong Ryou, Changwon National University, Korea

TURNOVER INTENTIONS OF POLICE OFFICERS: INFLUENCE OF  
BURNOUT, SUPERVISOR SUPPORT, AND JOB SATISFACTION \_\_\_\_ 264

Kim Hester, Arkansas State University – Jonesboro

Sarath Nonis, Arkansas State University – Jonesboro

Karen McDaniel – Jonesboro

**SPORTS MARKETING AND PROFESSIONAL CAREER \_\_\_\_\_ 266**

FEELING SAFE: COMMUNICATING SECURITY MEASURES

FOR SPORT SPECTATORS \_\_\_\_\_ 266

Alison Fridley, The University of Southern Mississippi  
Stacey A. Hall, NCS4, The University of Southern Mississippi  
James O. Evans, The University of Southern Mississippi  
Chris Croft, The University of Southern Mississippi  
Joslyn Zale, The University of Southern Mississippi

PSYCHOSOCIAL FACTORS AFFECTING THE INTENTION TO PLAY  
ESPORTS \_\_\_\_\_ 269

Soojung Krystal Park, Marshall University  
Jennifer Y. Mak, Marshall University  
Lei Ouyang, Marshall University

SENSORY EXPERIENCE AND PSYCHOLOGICAL CONNECTION AT  
SPORTING EVENTS \_\_\_\_\_ 271

Daigo Yazawa, Springfield College, USA  
Jaejin Lee, Florida State University, USA

A COMPARISON OF PARTICIPANTS AND NON-PARTICIPANTS OF  
RECREATIONAL SPORTS ACTIVITIES: A DYADIC STUDY \_\_\_\_\_ 273

Sanjay S. Mehta, Sam Houston State University  
Irfan Ahmed, Sam Houston State University  
Vivek S. Natarajan, Lamar University

**STUDENT RESEARCH** \_\_\_\_\_ **275**

FAIRNESS AND ETHICS OF DYNAMIC PRICING AND ITS USE IN RETAIL  
BANKING \_\_\_\_\_ 275

Sandy M. Knight, Sam Houston State University  
Irfan Ahmed, Sam Houston State University

METHODS TO IMPROVE BRAND EQUITY AND BUYING BEHAVIOR  
BASED ON THE THEORY OF PLANNED BEHAVIOR (TPB) \_\_\_\_\_ 277

Ronil Prasad, Pepperdine University

## **BEST PRACTICE IN MARKETING EDUCATION**

---

### **MENTAL HEALTH AMONG COLLEGE STUDENTS: QUALITY OF RELATIONSHIPS WITH OTHERS, ENVIRONMENT, AND TRANSCENDENCE**

**Sarath Nonis, Arkansas State University, Jonesboro  
Gail Hudson, Arkansas State University, Jonesboro**

---

#### **EXTENDED ABSTRACT**

The focus on mental health and wellbeing among college students has grown exponentially in the decade leading up to the start of the Covid 19 pandemic. While some of the short-term implications have been absenteeism, performance, engagement, and completion (Antaramian, 2015), the long-term impact has been low employment placement of graduates, increased rates of dropping out, and reduced personal income (Fergusson, Boden, & Horwood, 2007). Considering the growing importance of this issue, this manuscript specifically focuses on the mental health of college students operationalized as psychological wellbeing (PWB).

A holistic approach involves evaluating a whole situation, not just one or two parts. In this manuscript, we investigate, using a more holistic view, how the connections (quality of relationships) one has with the environment (planet), others (people), and the person as a whole, influences his or her PWB. More specifically, the variables expected to influence the PWB of a college student were quality of relationships a student would have with: (1) the environment (R-environment), (2) with others (R-others), and (3) with him or herself operationalized as transcendence (R-transcendence). Transcendence meaning, experiences or relationships a person has with something or someone beyond the normal level (e.g., relationship one has with a higher power, higher energy, God etc.). Student stress, anxiety, and credited hours completed were used as control variables. Hierarchical Multiple Regression (HMR) was used to investigate these relationships. The three PWB dimensions investigated in this research were Autonomy, personal relations with others, and self-acceptance.

The sample consisted of 176 students attending a medium-size (13,000+ students) AACSB accredited state university in the south. R-others, R-environment, and R-transcendence were measured using the scale developed by Fisher (2010). The three dimensions of PWB were measured using the short form of the Ryff (1989) scale. Stress was measured using the Cohen, Kamrack, & Mermelstein (1983) scale and anxiety was measured using the scale developed by Spitzer et. al. (2006). The number of credit hours completed was an open-ended question.

Based on the data, 53% of the students were in the moderate while 42% were in the high stress group. Anxiety levels based on the GAD-7 scale were high as well. While 22.7% of the students were in the mild group, 32.8% were in the moderate group. The moderate to severe group constituted 25.8% of the students and the severe group made up 18.8% of the sample. Among the control variables, stress was a significant variable (negative slope) with all three dimensions of PWB explaining between 21.6 to 6.1 percentage of the variation based on coefficient of determination r-square. Anxiety was not significant. Credit hours was significant for the dimension personal relations with others (positive slope).

In terms of predictor variables, R-others demonstrated significant positive correlations with the two PWB dimensions self-acceptance and positive relations with others but not with autonomy. R-transcendence showed a positive relationship with the self-acceptance dimension of PWB but not with positive relations with others or autonomy. Coefficient of determination varied between 22.4 and 11.1 percent indicating the importance of this variable in impacting the two dimensions of PWB. Based on the slope, this impact was positive. R-environment did not demonstrate any significant direct relationships with any of the PWB dimensions.

Interactive effects of R-environment and R-transcendence were negative and significant with all three dimensions of PWB. This was a key finding. Taken as a whole, results indicate the importance that R-transcendence plays in the PWB of college students. While R-transcendence (what goes on inside a student's mind) independently has a positive impact on his or her PWB, in the presence of R-environment and R-others it can have a negative impact. This finding seems to suggest when controversial topics relating to environment (e.g., sustainability, climate change, etc.) and social or others (e.g., same sex marriages, LGBTQ etc.) are brought into the curriculum, it could impact students differently. While it could enhance the PWB of students who have low R-transcendence, it could reduce the PWB of those with High R-transcendence. This has implications for curriculum development and delivery.

## References

- Antaramian S. (2015). Assessing psychological symptoms and well-being: Application of a dual-factor mental health model to understand college student performance. *Journal of Psychoeducational Assessment*, 33(5):419-429.
- Cohen, S., Kamrack, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24 (4): 385-396.
- Fergusson, D.M., Boden, J.M., & Horwood, L.J. (2007). Recurrence of major depression in adolescence and early adulthood, and later mental health, educational and economic outcomes. *The British Journal of Psychiatry*, 191(4): 335 – 342.
- Fisher, J. (2010). Development and application of a spiritual well-being questionnaire called SHALOM, *Religions*, I, 105-121.
- Mesisca J, & Mainwaring J. (2021). Stress, anxiety, and well-being in nurse anesthesia doctoral students. *American Association of Nurse Anesthesiology Journal*, 89(5): 396-402.

Proceedings of the Association of Collegiate Marketing Educators (2023)

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological wellbeing. *Journal of Personality and Social Psychology*, 57, 1069-1081.

Spitzer R.L, Kroenke, K., Williams, J.B.W, Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder. *Archives of Internal Medicine*, 166, 1092-1097.



## **THE IMPACT OF INTENTIONAL PROSOCIAL (WELLNESS) BEHAVIOR ON COLLEGE AND HIGH SCHOOL STUDENTS**

**Bela Florenthal, William Paterson University  
Lisa Chestnutt, Butler High School**

---

### **EXTENDED ABSTRACT**

Mental health research has shown that the ages 17-24 are "a peak period for the onset of mental disorders" (Cuijpers et al., 2019, p. 1). Covid-related research points out that the youngest cohorts exhibit the greatest mental discomfort when attempting to cope with the pandemic (Długosz, 2021). Adolescents, in particular, have been documented to suffer from mental health issues such as depressive symptoms and anxiety in relation to Covid-19 restrictions (Magson et al., 2021). Furthermore, even before the pandemic, approximately 14-20% of school-aged children were diagnosed with mental health or behavioral disorders (National Academy of Sciences, 2009; Kaffenberger & O'Rorke-Triagiani, 2013, p.323). However, an estimated "70 and 80% of school-aged children with a diagnosed mental disorder do not receive treatment" (Greenberg et al., 2003; Mendez, Carpenter, LaForett, & Cohen, 2009; Kaffenberger & O'Rorke-Triagiani, 2013, p.323). Therefore, it can be assumed that a large population of school-aged children is showing signs of mental health issues, being diagnosed with specific disorders, but still do not receive any lasting treatment.

One way to combat this monumental issue is to "build alliances within and outside the school community" (Kazak et al., 2010; Kaffenberger & O'Rorke-Triagiani, 2013, p.330). Intentional engagement in prosocial behavior, such as an act of kindness, is one way to alleviate mental health issues within the juvenile age group. As a result, educational researchers recommend implementing systematic and intentional acts of kindness programs in the classroom (Binfet, 2015). K-12 schools have been developing comprehensive programs to intentionally and systematically engage their students in prosocial activities, such as acts of kindness. One such program is "Learn Kind," created by the Kindness organization (Kindness.org, n.d.), and another is the Compassionate Schools Project (n.d.), which aims to develop a systematically compassionate character in young students.

During the Fall of 2021, in a dual enrollment Marketing Honors course, where high school students earn college credits, a prosocial project named "Spread Kindness" was implemented. Two years earlier, a similar project was implemented in an upper-level college course, Marketing Management and Marketing Research. Throughout the project engagement, students are required to commit Acts of Kindness (AOKs), report them in a qualitative manner via journals and photos, along with a quantitative way via excel tables, and then analyze their data by applying course models or concepts. Enacting the "Spreads Kindness" project fulfills the role of positive psychology and character strength within students' daily lives, therefore

working towards increasing positive mental health stability, an issue plaguing the student population.

Open-ended questions and a survey were administered to small groups of high school and college students to evaluate their perceived value, engagement, and satisfaction from participating in this project. Quantitative data analysis indicated that most students perceived significant value and fulfillment from participating in this project. Their attitude toward the project was predominantly positive, as they felt cognitively, emotionally, and behaviorally engaged. The qualitative data also supported these results. It showcased students' perceived value related to themselves and to others they interacted with during the duration of this project. In addition, the qualitative analysis provided further insight into the student's emotional state, whether positive or negative, while engaging in the project.

Therefore, enacting a prosocial behavior project such as "Spreads Kindness" fulfills the role of positive psychology and character strength within students' daily lives, therefore, working towards increasing positive mental health stability. Furthermore, developing an impactful and rigorous program that can be applied to both high school and college-level populations in marketing courses can initiate the adoption of similar programs in various educational environments to nourish students' mental well-being, clearly, an issue still plaguing the school-aged population.

## REFERENCES

- Binfet, J.-T. (2015). Not-so Random Acts of Kindness: A Guide to Intentional Kindness in the Classroom. *International Journal of Emotional Education*, 7(2), 49-62.
- Compassionate Schools Project (n.d.). Retrieved December 20, 2022, from <https://www.compassionschools.org/>
- Cuijpers, P., Auerbach, R. P., Benjet, C., Bruffaerts, R., Ebert, D., Karyotaki, E., & Kessler, R. C. (2019). The world health organization world mental health international college student initiative: an overview. *International journal of methods in psychiatric research*, 28(2), e1761.
- Długosz, P. (2021). Factors influencing mental health among American youth in the time of the Covid-19 pandemic. *Personality and Individual Differences*, 110711.
- Kindness.org (n.d.). Learn Kind. Retrieved December 20, 2021, from <https://kindness.org/programs/learn-kind>
- Kaffenberger, C. J., & O'Rorke-Trigiani, J. (2013). Addressing student mental health needs by providing direct and indirect services and building alliances in the Community. *Professional School Counseling*, 16(5). <https://doi.org/10.1177/2156759x1201600505>
- Magson, N. R., Freeman, J. Y., Rapee, R. M., Richardson, C. E., Oar, E. L., & Fardouly, J. (2021). Risk and protective factors for prospective changes in adolescent mental

health during the COVID-19 pandemic. *Journal of youth and adolescence*, 50(1), 44-57.

The full list of references can be obtained by contacting the author.

**WHICH CLASS SHOULD I TAKE? A MINORITY STUDENT  
PERSPECTIVE ON COURSE CHOICES IN POST-COVID  
EDUCATIONAL ENVIRONMENT**

**Vaidas Lukosius, Tennessee State University  
Ramaprasad Unni, Tennessee State University**

---

**EXTENDED ABSTRACT**

The COVID 19 pandemic disrupted education worldwide. In particular, educational institutions had to transition to online-only course delivery. Post-pandemic, when universities re-opened campuses, universities did not eliminate online classes, but rather included them as an alternative to many traditional, in-class courses. While there is a growing body of literature on understanding factors that lead to satisfaction with online classes, there is limited research on how students choose between courses with online, hybrid, and traditional class formats. Specifically, how do students value different attributes that influence their choice of a class that is available in multiple modalities. This is a relevant question in an age when universities are experimenting with a variety of ways to improve the overall college experience for students.

Students consider various factors when choosing a course to take. Modality of the class is obvious factor considered by students. Students are no longer restricted to only face-to-face classes. Hybrid and fully online classes are often frequently offered. Convenient schedule is an ongoing goal for many students when they select classes. Fully online classes offer a learning environment that may be more amenable to a student's schedule. However, some students may view this environment to be less conducive to their learning and may lack the necessary skills to be successful. There would also be variability in students' desire for social interaction afforded in face-to-face classes. Irrespective of the modality of a class, students also take into perceptions about the instructor designated for a specific class/section. This potentially shapes their expectations of how easy or hard the class would be in terms of getting the desired grade in that class. Finally, there have been calls for tuition reduction for online classes (Nichols, 2021). Is this valued by students? This study focused on five attributes: course modality (online, hybrid, face-to-face), schedule flexibility (flexible, set), social interaction (a lot, little), instructor difficulty (easy, hard), and tuition rates (regular, reduced).

Choice-based conjoint analysis (Hauser 2007; Hauser and Rao 2004; Orme 2005) was used to determine the importance of attributes and features of a particular marketplace offering. 200 students completed an online questionnaire on Sawtooth platform. Students chose their most preferred course from sets of 3 full profile combinations. An example of the format in which the information was displayed is shown in Table 1. By analysing how consumers rank presented 'cards', implicit valuation of each of the attributes, utilities or part-worths, can be calculated.

Table 1. Example of the format of information displayed to respondents

Class type	<b>Online</b> class	<b>Online</b> class	Hybrid class
Schedule	<b>Set</b> schedule	<b>Flexible</b> schedule	<b>Flexible</b> schedule
Social	<b>Little</b> social interaction	<b>Little</b> social interaction	<b>A lot</b> of social interaction
Instructor	Instructor is <b>easy</b>	Instructor is <b>hard</b>	Instructor is <b>easy</b>
Tuition	<b>Reduced</b> tuition <u>Select</u>	<b>Regular</b> tuition <u>Select</u>	<b>Regular</b> tuition <u>Select</u>

The sample composition was as follows. 100 (51%) of students were freshmen, 19 (9.6%) sophomore, 46 (23.4%) junior, and 32 (16.2%) senior. 108 (54.8%) of students were taking full load, while 89 (45.2%) were taking less than full load of classes. 106 (53.8%) of students were not employed/working, while 81 (46.2%) were employed. 178 (90.4%) of the students were under the age of 22, while 19 (9.6%) were over 22. There were 78 (39.6%) of males and 119 (60.4%) of females. Majority of the sample, 174 (88.3%) were African Americans, 11 (5.6%) Caucasians, and 12 (6.1%) fell in the other category.

The results suggest that instructor difficulty and course modality were perceived as the most important attributes (30.7% and 26.5%), followed by social interaction and tuition rate (16% and 15.9%), and schedule flexibility (10.9). Zero centred utilities were calculated and the ‘ideal’ class was determined to be in hybrid format, with flexible schedule, with a lot of social interaction, with an easy instructor, and at a discounted tuition rate.

The implications of the study are geared towards university administrators making decisions on how to highlight the attributes of courses that students perceive to be ‘ideal’. Understanding student choice-making process can help colleges better allocate human, financial resources that better correspond with where students see value.

## References

- Hauser, John R. (2007), "Note on conjoint analysis," Massachusetts Institute of Technology (MIT).
- Hauser, John R. and Vithala R. Rao (2004), "Conjoint Analysis, Related Modeling, and Applications," in *Marketing Research and Modeling: Progress and Prospects: A Tribute to Paul E. Green*, Yoram Wind and Paul E. Green, eds. Boston, MA: Springer US.
- Nichols, Taylor (2021), "Should Students Pay Full Price for an Online Education During the Pandemic,"(accessed Decmber 16, 2022), [www.onlineu.org/resources/online-college-tuition-pandemic](http://www.onlineu.org/resources/online-college-tuition-pandemic)
- Orme, Bryan K (2005), *Getting Started with Conjoint Analysis: Strategies for Product Design and Pricing Research*: Research Publishers, LLC.

# **EQUITY AND ETHICAL CONSIDERATIONS WHEN IMPLEMENTING A FLIPPED SOCIALLY DISTANCED CLASSROOM**

**Dawn McKell, Auburn University at Montgomery**

---

## **ABSTRACT**

A literature review focusing on equity and ethics related to technology proposed for use in a flipped, socially distanced, live-streamed classroom (FC) was undertaken. Areas of concern that could adversely impact students in an FC setting are discussed. Access to technology and the internet and mobile technology with its associated risks were identified as concerns related to equity in an FC. While four areas of focus were identified from the ethics literature stream: the internet (to include potential impacts of Artificial Intelligence), mobile technology, requirements to see the students visually during virtual class time, and digital citizenship.

*Keywords:* Digital Citizenship, Distance Learning, Educational Technology, Equity, Ethics, Flipped Classroom

---

## **INTRODUCTION**

The considerations presented in this paper involve equity and ethics surrounding the use of digital technology and the internet in the flipped, socially distanced, live-streamed classroom (FC; McKell, 2021). This FC article companion paper was deemed necessary as the FC author's responsibility to present the proposed FC model's equity, ethical, and risk warnings. The intent is to ensure that the model is implemented, where appropriate, with these warnings in mind.

The International Society for Technology in Education (ISTE) has standards to guide educators (ISTE, 2017) and identify desired student competencies (ISTE, 2016). Several of these standards address equity (educator standard 2b) and ethics (educator standard 3c). Closely related to ethics is digital citizenship, which is also covered in the guidelines. A rigorous look at the design and implementation of an FC must include evaluating the impact the FC will have on students related to the ISTE standards cited. Also, in implementing an FC, particular care should be taken to make students aware that, along with the benefits associated with educational technology and the use of the internet in an FC, there comes a responsibility to be a good digital citizen (student standards 2 a-d; educator standard 3d).

## **METHODOLOGY**

An equity and ethics literature review related to technology used, or technology with the potential to be used in an FC, was conducted.

Abbreviations: Artificial Intelligence (AI), Educational Technology (ET), Flipped Classroom (FC), Learning Management System (LMS), Modular Offline Learning Education Assessment Platform (MOLEAP), Social Media (SM), Sociotechnical Systems (STSs), Web Camera (WC).

One area, access to technology and the internet, was identified as an equity concern in an FC, while four foci are pertinent to ethics and are reviewed here: 1) internet use, 2) mobile technology, which includes the subsections of equity and risk, to include social media risk, 3) the current issue of whether or not to require students to have their web cameras (WC) on during virtual class, and 4) digital citizenship (DC).

## **EQUITY**

The questions to be considered are: is Instructional Technology equitable? If present, how do inequities impact student achievement? A review of the literature indicates that inequities do exist. The disparities can impact student achievement if the educational system is not cognizant of them or no attention is paid to them proactively. Individual teachers also need to be aware of the inequities before teaching and introducing new technologies into the classroom. There is growing pressure to introduce emerging technologies to the learning environment to improve it (Krutka, Heath, & Willet, 2019). Therefore, the effort to avoid making inequalities worse or creating new ones, which is a possibility (Hall, Roman, Jovel-Arias, & Young, 2020), is even more imperative. The inequalities are primarily related to access to technologies in one form or another. The restriction of access can be exceptionally problematic for persons with disabilities. Part of the problem is that the concept of access to technology is not a well-known theme. It has been suggested that a more explicit definition of accessibility is needed to promote the idea in higher education (Coleman & Berge, 2018). The concept of accessibility must include anything that prevents the learner from using technology appropriately to enhance learning. Federal and, in most cases, state mandates exist to ensure that institutions address accessibility for persons with disabilities, and there are accessibility guidelines. Yet, inaccessible technology was found commonly in kindergarten through 12<sup>th</sup>-grade schools (Shaheen & Lohne-Watulak, 2019).

### **Online Distance Education**

Online distance learning is ramping up, with most institutions in the process of adding more online courses presenting new challenges for students (Rath, Olmstead, Jie, & Beach, 2019). Open universities that function entirely online have grown in numbers, and there are new student challenges related to the use of online educational resources in that environment. Teachers also face unique challenges when teaching online to include creating online communities for an optimal learning environment (Mphahlele & Makokotlela, 2020).

The introduction of digital technology in the classroom, virtual or face-to-face, has created access inequities along divisional lines called "digital divides," which impact student learning experiences detrimentally. The divides are further explored in the following sections that explicate the most common disparities identified from the literature.

### **Access to Technology**

Inequity related to access to classroom technology is not new. From the earliest days, it has been unequal. Early on, however, the challenges were different. Race, socioeconomic

status, and gender were significant "physical" impediments. In the 1800s, the wealthy in Northeastern states could hire private tutors to teach the classics to their offspring, or their children could attend private academies. In the southern states that were more rural, education was conducted in a one-room schoolhouse for grades one through eight. When public schools became available, they were limited to white children. (Unknown2, n.d.). At the close of the 18<sup>th</sup> century, there were dame schools that consisted of home instruction fashioned after the English Model, generally taught by older women in the community. The male students were prepared to go to town schools. Girls were allowed to attend dame schools, but they rarely went on to town schools (Madigan, 2009). Access in this era referred to access to education, not merely access to educational technology (ET). Fast forward to the 20<sup>th</sup> century, and these physical barriers have, for the most part, been removed.

As to technology in the 1700s and 1800s, rudimentary technology has been used in the classroom as early as colonial days. The technology came in the form of Horn-Books, which were wooden paddles with written text for the learning of verses (Purdue Online, n.d.). Table 1 in Appendix A presents the technological additions to education over the years.

With the advent of the Internet, a host of classroom resources have become available, including YouTube, search engines, and professional learning communities where educators can exchange new best practices, to name a few. These resources rely on the availability of computer hardware and software, knowledge of how to use those components, access to the Internet, and the availability of technical support (Starkey, Sylvester, & Johnstone, 2017).

For various reasons that are more nuanced than the previous physical impediments of the 1800s, it appears that it is still race and socioeconomic status in play. Salvo, Shelton, and Welch (2017, p. 9) state that "...50% of African American male students are raised by their mothers in single-parent households." This specific demographic has a higher incidence of poverty, associated with a lower performance in education (Salvo et al., 2017). In 2016, 35% of African Americans did not have broadband Internet access in their homes, and almost half (46%) of African American college students were enrolled in remedial classes in 2010 (Salvo et al., 2017). There are still more subtle gender gaps that have reversed in some demographics, or have they always been there but not observed because certain groups were excluded from education? That is a question for research beyond the scope of this paper.

It has been suggested that the digital divide conversation has shifted from the ownership of computer hardware and software to high-speed broadband Internet access in terms of the haves and have-nots (Shaheen & Lohne-Watulak, 2019). Perhaps the discussion should remain in both theatres since some demographics use smartphones as their primary resource for Internet access (Coleman & Berge, 2018). Smaller screens used during learning have been associated with poorer learning outcomes (Salvo et al., 2017). Hillier (2018, p. 114) proposes a modular offline learning education assessment platform (MOLEAP) to address learners in remote areas of developed countries and learners in developing countries. The author defines a MOLEAP as "An alternative solution that builds on a number of existing projects is proposed as a way forward in addressing the issues of economics, hardware provision, multi-hardware compatibility and integration of assessment in a modular software environment." The existing projects are the e-Exams System (M. Hillier & Fluck, 2013, 2017) and the Moodle Learning Management System (LMS; (Miletić, 2011), with added support tools. According to Hillier and Fluck (2018, p. 113), "Moodle is the most commonly used LMS worldwide because it is open source and free to obtain." At this point,



MOLEAP is only a concept. What needs to be added is two-way communication ability and, when a network is present, the ability to send and receive updates.

### ***Persons with Disabilities Access to Technology***

Persons with disabilities can also suffer inequities in technology access even if they have computer hardware, software, broadband access, technical support, and are technologically capable. For these individuals, assistive technologies that aid the student in using the technologies must be built into the course design. When this is not done, students who are disabled are limited in their use of the technologies. When procuring systems in education, vendors should be asked about the system's accessibility features for persons with disabilities.

There are additional inequities among students in this demographic that are socioeconomic in nature. These inequities come in the form of being unable to afford assistive technologies to allow them access. As an example, the learning platform may create documents that can be read by electronic braille devices. However, can all persons with vision impairments afford them? The American Foundation for the Blind indicates that "The price of braille displays range from \$3,500 to \$15,000, depending on the number of characters displayed." (Uknown1, n.d.).

Starkey et al. (2017) have provided future policy directions that may be of assistance to reduce or eliminate some of the divides. The authors suggest making high-speed broadband available for all schools and professional development to improve teacher digital capability so that they can include student digital literacy and the use of social inclusion technologies as part of their taught curriculum.

## **ETHICS APPLIED TO THE FC**

According to Mirriam Webster (n.d., para 2b-d), ethics is defined as "the principles of conduct governing an individual or a group; a guiding philosophy; a consciousness of moral importance." Ethics should not be confused with morals, which "often describes one's particular values concerning what is right and what is wrong." (Mirriam Webster, n.d., para 5). The issue is that sometimes the ethical rubs up against the moral resulting in a dilemma that requires choice.

Problems and risks surrounding the various uses of technology in an FC are discussed in the following sections, along with possible solutions.

### **The Internet**

There are three areas of study in ethics, normative, meta, and applied ethics (Murukannaiah & Singh, 2020). Normative deals with one's conduct and how it affects others, meta-ethics concerns the meaning of ethics and its origins, while applied ethics relates to the principles within different fields. As an example, there are norms specific to conduct within the field of education. Another example would be machine ethics, which involves building ethical behavior into robots and artificial intelligence (AI). Machine ethics brings the discussion to the internet and its use as more internet technology applications are using AI, but first, a definition. Kaplan and Haenlein (2020, p. 40) define AI as "a system's ability to

interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation."

Murukannaiah and Singh (2020, p. 54) describe the interaction between internet users and internet applications as "sociotechnical systems." (STSs; Murukannaiah & Singh, 2020). These interactions can involve exchanges of data that would not otherwise have happened. Such as the current trend of asking personal questions about the mother's maiden name and favorite pets so that when users forget their password, their account can be unlocked.

AI collects data based on the designers' algorithms, which can enhance the user experience by making the STSs more interactive. Interactive animations and simulations are currently being used in higher education, and studies suggest that critical thinking and knowledge acquisition show improvement when these tools are used (Lai & Bower, 2020). These ETs are AI-based. Leddo (2018, p. 6) found that using an intelligence-based tutoring technology "produced four times the learning." Simulations have the intelligence to provide different pathways for the learner based on the learner's responses. The risks associated with AI and the internet are the amount of data collected and how it is used.

Further, as AI becomes more and more "intelligent," the ethics built into AI becomes more and more critical (Kaplan & Haenlein, 2020). Kaplan & Haenlein argue that the humans who design algorithms and AI systems are not perfect. They may create commands that are "fuzzy," imprecise, or based on biased or erroneous data, which could lead to unintended outcomes. Ignoring the incorporation of ethical fail-safes, i.e., ethical guidelines when constructing algorithms within AI systems might lead to the catastrophic consequences of which nightmares are made (Kaplan & Haenlein, 2020). Walz and Firth-Butterfield (2019) proposed a "graded governance model" to address AI ethical concerns through regulatory guidance. It is interesting to note the suggestion that technology and mobile apps be used to teach ethics (Montiel, Delgado-Ceballos, Ortiz-de-Mandojana, & Antolin-Lopez, 2020).

The evaluation of technologies under consideration for educational use should include an investigation of the data collected by the technology, its specific use and reuse, and security measures embedded in the application and the educational institution. A full discussion of technology security is beyond the purview of this paper. In brief, the educational institution's information technology resources should be aware of the risks associated with e-learning systems, as identified by Salimovna, Salimovna, and ugli (2019) and Zamfiroiu (2018). Those resources should also be aware of emerging security tools for technologies, such as Blockchain, which can also assist with the validation, verification, authentication, and storing of data (Li et al., 2019; Pfeiffer, Bezzina, Wernbacher, & Kriglstein, 2020) and e-learning assessment and certification (Li et al., 2019).

## **Mobile Technology**

### ***Equity***

The use of mobile technology in the FC can become involved when students attend class remotely or in the physical classroom when they need to work in groups with students who are attending remotely. Participants remotely attending may or may not have desktop or laptop computers. Not all students that do have desktop or laptop computers are using the same operating system. In the classroom, this issue can be eliminated using institution-provided computers or devices, as in McKell's Model (2021). For technology used outside the classroom, the course designer should be mindful of how the course content appears on

multiple devices and operating systems. In the interests of equity and inclusion, students without access to the internet, mobile devices, or computers could be accommodated as they could choose to participate through the face-to-face group of the FC course.

### ***Risks***

The suggestions above address some equity problems; however, remote learning and using any devices in the FC involve using resources from the internet that present a set of risks elucidated by the ISTE that can have long-term detrimental effects. The 2017 standards highlight: a) cyberbullying; (b) potential for public dissemination of information initially intended for a limited audience; (c) ease and speed with which digital materials can be shared; (d) risk of unethical use of archived materials; and (e) parental and student consent for recording classroom activities (Huffman, Shaw, & Loyless, 2019).

### ***Social Media***

Another consideration that can negatively impact educators and students is social media (SM) technology used in and outside the FC for educator-to-student and peer-to-peer communication. To begin, a definition of social media is in order. Kaplan and Haenlein (2020, p. 39) define social media as a "group of internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content."

The Model presented by McKell (2021) does not include SM. However, the risks that come with its use should it be included are similar to those identified for internet use. Moreover, SM subjects its users to internet trolling, which, even if it does not harm, can be considered unethical (DiFranco, 2020). Personal SM use is not recommended for use in an educational setting (Huffman et al., 2019). Private and education communications should be kept separate. Students should use alias accounts so that any confidential, sensitive, or identifiable information they provide intentionally or unintentionally cannot be traced back to them. After all, this separation is routine for personal and business or education email addresses and personal and official company or education social media. It should be the same for educator-to-student and student-to-student social media communication. Establishing private social media groups may add some protection, although this may not be hacker-proof, and social media administrators may have access. Huffman et al. (2019, p. 93) provide additional, detailed guidelines for SM's use for educational purposes and ET "quality implementation" guidelines using the SIMPLE Model, staff and student assessment, inventory, measurement, planning, leadership, and evaluation. Additionally, Huffman et al. (2019, p. 96) provide "four basic rules" for students using SM.

### **Virtual Classroom - Video On or Off Ethics**

Whether or not to require that students have their web cameras (WC) turned on has become a burgeoning issue, with so many students forced to attend school virtually. California has left it up to the school districts, with most districts requiring the WB to be on (Johnson, 2020). Requiring WB to be on raises a legal issue as the Family Educational Rights and Privacy Act protects personally identifiable information that may be shared in class innocently. Many of these in-class sessions are recorded. Therefore, they can remain in the cloud forever through tweets, retweets, and other postings. California has addressed this by

providing exceptions, opt-out forms, and little to no consequences if the camera is not on, especially for students with poor connections or technical difficulties. To further protect privacy, backdrops or images can replace the student's background, although care must be taken to ensure that it is functional on all types of devices.

Moses (2020) suggests that requiring that the WC is on can adversely affect students and provides five reasons why: 1) Increased anxiety and stress, 2) Zoom fatigue, 3) Competing obligations, 4) Right to privacy, and 5) Financial means and other kinds of access issues.

Johnson (2020) raises the question of whether or not mandating that the WC is on should be based upon the type of class. For example, when the course requires students to do presentations, it would seem reasonable to require that the instructor can see the student for an appropriate assessment. However, it may not be necessary for a history course.

It can be argued that virtual classrooms might decrease student participation, particularly with the camera turned off. As one faculty member put it, "Cold-calling those black boxes often results in silence, strongly implying that the student isn't actually there" (Reed, 2020, para. 3). Johnson (2020), through an interview with the Director of Digital Learning Initiatives at Stanford's Graduate School of Education, provides some alternatives for monitoring student engagement, such as reaction buttons, interactive whiteboards, and polls. The FC is ideal for monitoring engagement, as there is no formal lecturing. The class consists of activities with live interactive communication in groups with peers and between the instructor and the student(s). The engagement monitoring tactics identified by Johnson (2020) fit easily within the FC framework.

A final consideration involving WCs is an emerging trend of using facial recognition software to monitor student engagement with and understanding of the course material being provided. Using facial recognition is already happening in China and is being researched here in the United States using EngageSense software (Bala, 2020). This development also raises privacy concerns related to what data is being collected and how it is being used.

## **Digital Citizenship**

Cooney, Nugent, & Howard (2018, p. 2) describe DC "as the norms of appropriate, responsible behaviour when engaging with others via Information Communication Technology." The authors note that there appears to be a dichotomy of ethical principles regarding online versus face-to-face interactions, at least as observed at their institution. This dichotomy prompted a DC Initiative that is ongoing at their university. The terminology (DC) began in the twenty-first century with the advent of globalization.

Burgess-Wilkerson, Hamilton, Garrison, & Robbins (2018, p. 1) state that "A responsible digital citizen" is a person skilled in using the internet to buy and sell products/services safely; engages in making practical, safe, responsible, ethical, and legal use of technology; understands the rights and responsibilities that come with being online and is someone who uses technology in a positive manner."

DC requires high-order thinking skills, in particular, critical thinking, to navigate the nine elements of DC, digital commerce, digital communication, digital literacy, digital etiquette, digital law, digital rights and responsibility, digital health and wellness, and digital security. Al-Abdullatif and Gameil (2020) point out that studies have shown students and educators are lacking in some of these elements. The authors provided a full description of

each component and found that 85.3% of their survey participants were not knowledgeable about DC. Also, more than 95% were unaware of all the elements that comprise it.

So how does one go about instilling these competencies to produce a "responsible digital citizen?" Barak and Green (2020) suggest that DC lessons should be embedded in courses across the campus in all fields, especially in Business Communication courses.

The question then becomes: What are the best pedagogical practices to use to convey DC principles, resulting in their use in practice? A study investigating students' prior perceptions of ethics in online ethics in research courses and later ethical practices, found that collaborative, case-based, and contextual learning promoted ethical practice. Further, an educational benefit was observed related to case-based instruction (Barak & Green, 2020). These knowledge delivery forms are the antithesis of individual learning and machine-graded activities that enhance feelings of isolation (Barak & Green, 2020) and are generally thought of as "online education." The alternate delivery methods are also precisely the type of activities prescribed for the FC and deeper student learning (Deng, 2019).

A lack of DC competencies can have severe consequences in the business world, and employers are acutely aware of the impact this lack can have (Burgess-Wilkerson et al., 2018).

## DISCUSSION

In any discussion of ethics in the classroom regarding the technology used, equity must be included. It must be recognized that a digital divide exists between those students who have ready access to technology and the internet and those who do not. Also, there are unique access issues related to persons with disabilities. When it comes to fruition, the MOLEAP concept appears to be a promising means to address the have and have not divide, though it does not address the access gap associated with disabilities. Adding audio and captioning capabilities to the concept is an area recommended for future research. Classroom design must take into account the needs of the student population being served. An instructor might consider administering a survey that evaluates student access to technology at the beginning of the course to identify where technology issues might come up. For example, The Consortium for School Networking (CoSN; 2016) Sample Out-of-School Connectivity Survey could be used to survey students and, where appropriate, parents. The information gleaned from the survey could inform course design, content, and delivery.

There are many benefits to technology use in face-to-face, virtual, and online classrooms. A study that examined 73 systemic literature reviews from the field of ET found support, in 65 papers, for its positive effect on "knowledge gain, knowledge acquisition, content understanding, and improvement in test scores or acquisition of skills," or both (Lai & Bower, 2020, p. 249). Lai identified studies that indicated that animations and simulations positively affect overall learning outcomes, while simulations, more specifically, improve critical thinking and knowledge acquisition. Hamilton (2015, p. 80) states, "The effective use of instructional technology encourages active participation by students, which keeps them involved and places much of the learning load on them."

Using this technology, the course designer and the instructor should evaluate its risks before implementation. Identifying risks is not the only factor to consider. Methods to ameliorate the risks should be implemented or addressed by the course designer to protect all

users, students, and instructors. As noted earlier, Huffman et al. (2019) recommend the SIMPLE Model as a guide to quality technology implementation. If the technology considered is AI-based, extra precautions concerning the type of information collected by the technology and how the data will be used are in order. There is even more concern on the horizon if WCs are used with face recognition software. Given the achieved student engagement and the apparent beneficial effects of technology, the benefits outweigh the risks, particularly if the risks are mitigated or controlled.

The debate surrounding WC requirements is ongoing. Outside of the financial consideration, on one side, instructors are concerned about student engagement. If WCs remain off, how do instructors know if the student is "attending?" This question could be answered by the course design, specifically a flipped classroom design where the students must interact with each other and the instructor through activity-based course content. On the other side of the debate, there are privacy issues, such as students finding out how and where each other live. Safety then becomes an issue. Many students use their bedrooms to attend virtually and are uncomfortable sharing their private space with everyone. However, Johnson (2020) suggests that the warmth of the relationship between student and instructor could make the student more comfortable sharing.

Another example is when the student might share a bedroom with siblings, which could be a source of embarrassment. This knowledge in other students' hands might be used to ridicule them as additional private information can be used. This type of potential behavior brings the discussion to ethics.

Ethics, or the lack of ethics related to an FC, can have far-reaching consequences and negatively impact students and instructors. Appropriate guidelines and protections should be in place to mitigate potential damage to technology users. Technology, including social media, comes with risks that users should be mindful of to avoid possible privacy loss and identity theft.

In terms of technology user responsibility, DC must be taught in the classroom to protect students and instructors from intentional or unintentional harm and to engrain the "principles of conduct" and the accountability that comes with technology use. Evidence to support the need for student training in DC is provided by Al-Abdullatif & Gameil (2020). DC goes far beyond the classroom. It is a competency that is essential in both business and personal interactions.

### **Funding source declaration**

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### **Declaration of Competing Interest**

None.

### **Acknowledgment**

I want to thank Dr. Timothy Lewis and Mr. Eugene Anderson for their review and feedback on various parts of the paper.

**APPENDIX A. CLASSROOM TECHNOLOGIES THROUGH THE YEARS**

**Table 1.** Classroom Technology History

Technology	Description/Comment	Manufacturer/Inventor	Year
Pencil	As we know it today, with an eraser	Hymen Lipman	1858
Magic Lantern	Primitive slide projector	Carpenter and Westley	1870
Chalkboard	A simple piece of slate	James Pillans (UK, 1801)	1890
Radio	Public radio broadcasting	Lee de Forest	1920s
Overhead Projector	For displaying documents	3M	1930
Ballpoint pen	Patented in 1943	Biro Brothers	1940
Videotapes	Electric impulses on magnetic tape	Ampex Corporation	1951
Photocopier	First mass-marketed	Xerox	1959
Skinner Teaching Machine	System of Teaching and Testing	BF. Skinner	1961
Handheld Calculator	Just over six inches tall	Texas Instruments	1967
Scantron	System of Testing	Michael Sokolski	1972
Whiteboards	Existed before 1975, but dry-erase markers did not.	Pilot Pen	1975
First portable computer	Osborne 1 – 24 pounds	Osborne	1981
Mac	Apple computer	Apple	1984
Mass-market laptop	T1100	Toshiba	1985
Commercial use of the Internet	The National Science Foundation (NSF) removed restrictions	NSF	1993
MySpace	Social Media	Thomas Anderson & Chris DeWolfe	2003
Facebook	Social Media	Mark Zuckerberg	2004
Twitter	Social Media	Evan Williams	2007

## REFERENCES

- Al-Abdullatif, A. M., & Gameil, A. A. (2020). Exploring Students' Knowledge and Practice of Digital Citizenship in Higher Education. *International Journal of Emerging Technologies in Learning (IJET)*, 15(19), 122-142. doi:10.3991/ijet.v15i19.15611
- Bala, N. (2020). The Danger of Facial Recognition in Our Children's Classrooms. *Duke Law & Technology Review*, 18, 249-267. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=edshol&AN=edshol.hein.journals.dltr18.2&site=eds-live&scope=site&custid=gsu1>
- Barak, M., & Green, G. (2020). Novice Researchers' Views About Online Ethics Education and the Instructional Design Components that May Foster Ethical Practice. *Science & Engineering Ethics*, 26(3), 1403-1421. doi:10.1007/s11948-019-00169-1
- Burgess-Wilkerson, B., Hamilton, C., Garrison, C., & Robbins, K. (2018). Preparing Millennials as Digital Citizens and Socially and Environmentally Responsible Business Professionals in a Socially Irresponsible Climate. In: Online Submission.
- Coleman, M., & Berge, Z. L. (2018). A Review of Accessibility in Online Higher Education. *Online Journal of Distance Learning Administration*, 21(1), 1-7. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=eue&AN=128958998&site=eds-live&scope=site&custid=gsu1>
- Cooney, C., Nugent, K., & Howard, K. (2018). Embedding Digital Citizenship In A Higher Education Institute. *AISHE-J: The All Ireland Journal of Teaching & Learning in Higher Education*, 10(2), 1-8. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=eue&AN=130845860&site=eds-live&scope=site&custid=gsu1>
- CoSN. (2016). Digital Equity: Supporting Students & Families in Out-of-School Learning, Sample Out-of-School Connectivity Survey. Retrieved from [https://www.cosn.org/sites/default/files/pdf/CoSN%20Digital%20Equity%20Toolkit%20Survey%20Templates%2C%20February%202016\\_1.pdf](https://www.cosn.org/sites/default/files/pdf/CoSN%20Digital%20Equity%20Toolkit%20Survey%20Templates%2C%20February%202016_1.pdf)
- Deng, F. (2019). Literature Review of the Flipped Classroom. *Theory and Practice in Language Studies*, 9(10), 1350. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=edsglr&AN=edsgcl.604093163&site=eds-live&scope=site&custid=gsu1>
- DiFranco, R. (2020). I Wrote this Paper for the Lulz: the Ethics of Internet Trolling. *Ethical Theory and Moral Practice*, 23(5), 931-945. doi:10.1007/s10677-020-10115-x
- Hall, J., Roman, C., Jovel-Arias, C., & Young, C. (2020). Pre-Service Teachers Examine Digital Equity Amidst Schools' COVID-19 Responses. *Journal of Technology & Teacher Education*, 28(2), 435-442. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=eue&AN=144608783&site=eds-live&scope=site&custid=gsu1>
- Hamilton, B., & International Society for Technology in, E. (2015). *Integrating Technology in the Classroom: Tools to Meet the Need of Every Student* (Vol. First edition). Eugene, Oregon: ISTE.
- Hillier, M. (2018). Bridging the digital divide with off-line e-learning. *Distance Education*, 39(1), 110-121. doi:10.1080/01587919.2017.1418627



## Proceedings of the Association of Collegiate Marketing Educators (2023)

- Hillier, M., & Fluck, A. (2013). Arguing again for e-exams in high stakes examinations. Paper presented at the Electric Dreams, Sydney, Australia.
- Hillier, M., & Fluck, A. (2017). Transforming Exams - How IT works for BYOD e-Exams. Paper presented at the Me, Us, IT! ASCILITE2017: 34th International Conference on Innovation, Practice and Research in the Use of Educational Technologies in Tertiary Education, Toowoomba, Australia.
- Huffman, S., Shaw, E., & Loyless, S. (2019). ENSURING ETHICS AND EQUITY: POLICY, PLANNING, AND DIGITAL CITIZENSHIP. *Education*, 140(2), 87-99. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=slh&AN=141261346&site=eds-live&scope=site&custid=gsu1>
- ISTE. (2016). ISTE Standards for Students. ISTE Standards. Retrieved from <https://www.iste.org/standards/for-students>
- ISTE. (2017). ISTE Standard for Educators. ISTE Standards. Retrieved from <https://www.iste.org/standards/for-educators>
- Johnson, S. (2020). On or off? California schools weigh webcam concerns during distance learning. Retrieved from <https://edsources.org/2020/on-or-off-california-schools-weigh-webcam-concerns-during-distance-learning/638984>
- Kaplan, A., & Haenlein, M. (2020). Rulers of the world, unite! The challenges and opportunities of artificial intelligence. *Business Horizons*, 63(1), 37-50. doi:10.1016/j.bushor.2019.09.003
- Krutka, D. G., Heath, M. K., & Willet, K. B. S. (2019). Foregrounding Technoethics: Toward Critical Perspectives in Technology and Teacher Education. *Journal of Technology and Teacher Education*, 27(4), 555-574. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=eric&AN=EJ1247611&site=eds-live&scope=site&custid=gsu1>  
<https://www.learntechlib.org/primary/p/208235/>
- Lai, J. W. M., & Bower, M. (2020). Evaluation of technology use in education: Findings from a critical analysis of systematic literature reviews. *Journal of Computer Assisted Learning*, 36(3), 241-259. doi:10.1111/jcal.12412
- Leddo, J., Kindi, R., Bhandarkar, S., Chadeva, N., Ganotra, K., Jayakumar, P., & Somaiya, Y. (2018). Next-generation interactive, educational television: Using artificial intelligence and the internet to customize instruction to student learning needs. *Journal of Educational Multimedia and Hypermedia*, 27(1), 103-114. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=psyh&AN=2018-14576-006&site=eds-live&scope=site&custid=gsu1>
- Li, C., Guo, J., Zhang, G., Wang, Y., Sun, Y., & Bie, R. (2019). A Blockchain System for E-Learning Assessment and Certification. In (pp. 212-219): IEEE.
- Madigan, J. C. (2009). The Education of Girls and Women in the United States: A Historical Perspective. *Advances in Gender and Education*, 1, 11-13. Retrieved from <https://www.ncgs.org/wp-content/uploads/2017/11/The-Education-of-Girls-and-Women-in-the-United-States-A-Historical-Perspective.pdf>

- McKell, D. C. (2021). Implementing the Flipped, Socially Distanced, Live-Streamed Classroom. *International Journal of Business, Humanities, and Technology*, 11(2). doi:10.30845/ijbht.v11n2p1.
- Miletić, D. (2011). *Moodle Security: Learn How to Install and Configure Moodle in the Most Secure Way Possible*. Birmingham, [U.K.]: Packt Publishing.
- Montiel, I., Delgado-Ceballos, J., Ortiz-de-Mandojana, N., & Antolin-Lopez, R. (2020). New Ways of Teaching: Using Technology and Mobile Apps to Educate on Societal Grand Challenges. *Journal of Business Ethics*, 161(2), 243-251. doi:10.1007/s10551-019-04184-x
- Moses, T. (2020). 5 reasons to let students keep their cameras off during Zoom classes. Retrieved from [5 reasons to let students keep their cameras off during Zoom classes](#)
- Mphahlele, R. S. S., & Makokotlela, M. V. (2020). Discourse on student participation in the Open Distance Learning using Open Educational Resources. *Açık ve Uzaktan Öğrenmede Açık Kaynak Kodlu Kaynakların Kullanımının Öğrenci Katılımı Açısından Değerlendirilmesi.*, 3(1), 49. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=edb&AN=142837506&site=eds-live&scope=site&custid=gsu1>
- Murukannaiah, P., & Singh, M. (2020). From Machine Ethics to Internet Ethics: Broadening the Horizon. *IEEE Internet Computing*, 24, 51-57. doi:10.1109/MIC.2020.2989935
- Pfeiffer, A., Bezzina, S., Wernbacher, T., & Kriglstein, S. (2020). Blockchain Technologies for the Validation, Verification, Authentication and Storing of Students' Data. *Proceedings of the European Conference on e-Learning*, 421-427. doi:10.34190/EEL.20.009
- Purdue Online. (n.d.). The Evolution of Technology in the Classroom. Retrieved from <https://online.purdue.edu/blog/education/evolution-technology-classroom>
- Rath, L., Olmstead, K., Jie, Z., & Beach, P. (2019). Hearing Students' Voices: Understanding Student Perspectives of Online Learning. *Online Journal of Distance Learning Administration*, 22(4), 1-12. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=eue&AN=140445845&site=eds-live&scope=site&custid=gsu1>
- Reed, M. (2020). Should Showing Faces Be Mandatory? Retrieved from <https://www.insidehighered.com/blogs/confessions-community-college-dean/should-showing-faces-be-mandatory>
- Salimovna, F. D., Salimovna, Y. N., & ugli, I. S. Z. (2019). Security issues in E-Learning system. In (pp. 1-4): IEEE.
- Salvo, S., Shelton, K., & Welch, B. (2017). African American Males and Online Education: A Review of the Literature. *Online Journal of Distance Learning Administration*, 20(4), 1-20. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=eue&AN=127185337&site=eds-live&scope=site&custid=gsu1>
- Shaheen, N., L., & Lohne-Watulak, S. (2019). Bringing Disability into the Discussion: Examining Technology Accessibility as an Equity Concern in the Field of Instructional Technology. *Journal of Research on Technology in Education*, 51(2),

187-201. Retrieved from

<https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=eric&AN=EJ1217976&site=eds-live&scope=site&custid=gsu1>  
<http://dx.doi.org/10.1080/15391523.2019.1566037>

Starkey, L., Sylvester, A., & Johnstone, D. (2017). Negotiating Digital Divides: Perspectives From the New Zealand Schooling System. *Journal of Research on Technology in Education*, 49(1/2), 31-42. doi:10.1080/15391523.2017.1292161

Unknown1. (n.d.). Refreshable Braille Displays. Retrieved from

<https://www.afb.org/node/16207/refreshable-braille-displays#:~:text=The%20price%20of%20braille%20displays,braille%20display%20or%20speech%20synthesizer.>

Unknown2. (n.d.). Education Reform. Retrieved from

<https://courses.lumenlearning.com/boundless-ushistory/chapter/educational-reforms/>

Walz, A., & Firth-Butterfield, K. A. Y. (2019). IMPLEMENTING ETHICS INTO ARTIFICIAL INTELLIGENCE: A CONTRIBUTION, FROM A LEGAL PERSPECTIVE, TO THE DEVELOPMENT OF AN AI GOVERNANCE REGIME. *Duke Law & Technology Review*, 18, 176-231. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=lgs&AN=141372963&site=eds-live&scope=site&custid=gsu1>

Zamfiroiu, A. (2018). Security Management for Mobile Learning Systems. *eLearning & Software for Education*, 1, 42-48. doi:10.12753/2066-026X-18-005

## **MENTORING: ANTECEDENTS AND CONSEQUENCES,** **APPLICATIONS IN A SALES/MARKETING CAREER**

**Anshu Saran, The University of Texas Permian Basin**  
**Madison Valverde, The University of Texas Permian Basin**  
**Linda Chepkemboi, The University of Texas Permian Basin**

---

### **EXTENDED ABSTRACT**

#### **Effective Mentoring**

Among many, one of the definitions of mentoring is an effort made to maintain a meaningful relationship that lasts, the key ingredient could be reciprocity (Chang 2012) and there is no greater satisfaction for a mentor than to see the mentee succeed due to a constructive relationship with his or her contribution (Chang 2012). Another definition of mentoring can be to transfer knowledge or psychosocial support related to work, professional and /or personal development (Guillot 2014).

#### **The Research Questions are:**

1. Once we examine the Antecedents and Consequences of mentoring in a Sales Management context, we will attempt to extract the key concepts in Effective Mentoring; we will conduct research on how to operationalize the key constructs in effective mentoring in a Sales environment, their role in supporting the effectiveness of mentoring, and hence increase the Sales organization's performance.
2. How to determine a relationship between successful operationalization of key mentoring concepts and improvements in Sales Management.

The role of developing formal mentoring programs in a way that mentors and mentees in a Sales Management environment are more motivated, and can more easily interact with each other and help overcome this problem and subsequently result in improved mentoring and mentorship quality (Allen, Ebay, Lentz 2006). Mentoring uses resources to teach critical thinking, develop interpersonal skills, increase employee engagement, and transfer company knowledge (Iverson 2019).

To keep the efforts energized in a Sales Management environment, there may be flexibility and continuous improvement, ideas for new mentoring activities, ongoing additional training through Webinars and external classes, and focus on sharing program success stories (Iverson 2019). The mentoring relationships are bonded in common goals, engaging in regular meetings and/or interactions, and promoting honesty and trust. (Guillot 2014).

Mentorships may help sales personnel develop a sense of professional identity and personal competence and can provide mentors with a sense of generativity and purpose (Erickson, 1963; Kram, 1985; Levinson et al., 1978, (Allen & Ebay, Lentz 2006). Higher quality training may include more breadth of topics and focuses on not just the career-related roles that mentors might fulfill for mentees (Allen & Ebay, Lentz 2006).

Accordingly, both parties will likely feel greater motivation to maximize the relationship. This greater investment may explain why perceived input into the matching process appears to be a key component of effective formal mentoring practice (Allen, Ebay, Lentz 2006). Positive professional mentor relationships may have a significant beneficial impact on an individual's career, incremental benefits to business and profitability by developing workplace talent, identifying future organizational leaders, increasing employee engagement, developing leadership skills, integrating corporate and institutional knowledge, improving personnel retention, increased job, and career satisfaction, and project a positive employer brand. (Iverson 2019).

The implementation of mentorship provides the opportunity for an increase in job satisfaction, decrease in intentions to leave and employee turnover. Mentoring relationships can be used as a means of socialization and acclimatization for salespeople (Rollins, Rutherford, Nickell 2014). In addition, as employees begin to retire earlier in their careers, mentoring programs provide the means to keep valuable knowledge and information within the company. Mentorship programs also provide valuable training benefits. Implementing Mentoring programs can reduce the costs of training and the cost of employee turnover (Rollins, Rutherford, Nickell 2014). Providing skills for selling to a mentee benefits the mentor's performance and provides a way to enhance motivation within the organization.

In organizations where employees are hired and developed and then eventually forward onto higher positions the implementation of a mentorship program may be a viable choice. Mentoring may help with communicating valuable job related skills and to enhance relationships with stakeholders (Hallmon, Tapps 2019). Research has shown that organizations have began implementing mentoring plans at administration levels. Doing so offers opportunities to provide resources to better fulfill job expectations and move onto higher levels of administration (Hallmon, Tapps 2019).

We wish to establish the relationship between the key constructs from the literature within effective mentoring and incremental results in Sales Management and research how to operationalize the constructs.

## **Methodology**

To extract the key constructs of effective mentoring, we will use depth interviews and focus groups with about 30 key informants with significant sales management experience. The coding and data analysis will be detailed.

## **REFERENCES**

Allen, Tammy D, Lillian T Eby, and Elizabeth Lentz (2006), "Mentorship Behaviors and Mentorship Quality Associated With Formal Mentoring Programs: Closing the Gap Between Research and Practice: *Journal of Applied Psychology*. May 2006, Vol. 91 Issue 3, p567-578. 12p

Proceedings of the Association of Collegiate Marketing Educators (2023)

- Chang, Milton (2012), "Making Mentorship Work is Mutually Beneficial.": *Laser Focus World*. Oct2012, Vol. 48 Issue 10, p34-34. 1p.
- Craig, Guillot (2014), "Mentoring That Matters,": *Internal Auditor*. Apr2014, Vol. 71 Issue 2, p46-50. 5p.
- Hallmon, A. W., & Tapps, T. N. (2019). The value of strategic mentorship in park and recreation agencies. *International Journal of Evidence Based Coaching & Mentoring*, 17(1), 34–45. <https://doi-org.ezproxy.utpb.edu/10.24384/9xnz-zr66>
- Iverson, Amanda (2019), "Developing and Executing a Corporate Mentorship Program,": *Journal of Pension Benefits: Issues in Administration*. Autumn2019, Vol. 27 Issue 1, p51-53. 3p.
- Rollins, M., Rutherford, B., & Nickell, D. (2014). The role of mentoring on outcome based sales performance: A qualitative study from the insurance industry. *International Journal of Evidence Based Coaching & Mentoring*, 12(2), 119–132

**“BRIDGING THE GAP” FOR BUSINESS STUDENTS’  
QUANTITATIVE SKILLS WITH THE MOTIVATION-  
IMPLEMENTATION-REFLECTION-REINFORCEMENT  
LOOP**

**Weixing Ford, Texas A & M University –San Antonio**

**ABSTRACT**

Quantitative skills have been among the top skills that are in high demand in the business workplace. However, not all business graduates are equipped with such necessary skills when they join the workforce. This research proposed a motivation-implementation-reflection-reinforcement loop that may be conducted in business courses in order to help students strengthen their quantitative skills. In first step, various critical thinking scenarios with quantitative information and alternative implications were presented to the students to help them obtain motivation for developing quantitative skills; next, the students implemented critical thinking exercises on their own; in the third step, the students reflected on their critical thinking skills in a collective manner; finally, the collective wisdom from the reflection stage provided the students with directions for further reinforcement of the quantitative skills.

**THE IMPORTANCE OF STRATEGIC PLANNING AND  
COLLABORATION IN SUSTAINABILITY AND SOCIAL  
RESPONSIBILITY CLASSROOM PROJECTS: EXAMPLES  
FROM APPALACHIA**

Panelists include Janice Keene, Julie Haworth and Tom Henderson. Keene is the Founder and President of Evergreen Heritage Center, the 130-acre historic farm and forest. Selected among the top 100 Maryland Women for 2021, Keene has partnered with her community to offer experiential learning for college students, professional development for educators and field classes for school students. She along with other panelists will talk about the importance of strategic planning and collaboration in managing classroom projects focusing on sustainability and social responsibility. Julie Haworth is the Program Director of the University of Texas at Dallas Undergraduate Marketing Program. Haworth discusses the need for social impact marketing classroom examples like Evergreen Heritage Center in terms of addressing the new AACSB social impact goals associated with learning at the Jindal School of Management. Tom Henderson of University of Texas at Dallas will focus on the example of another Appalachian success story, albeit 900 miles away in the Golden Triangle region of Mississippi. For years, Henderson has followed an effective strategic planner and collaborator, Joe Max Higgins, who provides an excellent case study for Business Administration classes.



## **BRANDING STRATEGY**

---

### **Identifying Positioning Strategies for Higher Education in a Time of Disruption: The Case of the Online Consortium of Independent Colleges and Universities (OCICU)**

**Adam Guerrero, The University of the Incarnate Word**  
**Scott Roberts, The University of the Incarnate Word**  
**Alex Rodriguez, Outcomes4Me**

---

#### **ABSTRACT**

This study examines the institutions that comprise the Online Consortium of Independent Colleges and Universities (OCICU) to better understand the types of higher education institutions that comprise their membership. It also addresses how the challenging economic environment around higher education is forcing institutions to reexamine how the college-attending population defines value and how institutions can best utilize their own existing resources (and those of other institutions) to meet those demands. The current research utilized a variety of methodological tools leading up to a cluster analysis to construct multiple customer/school segments within the seventy-one colleges and universities comprising the OCICU collaboration.

---

#### **INTRODUCTION**

The higher education landscape among smaller, tuition-driven institutions is changing dramatically as the market transforms (Einstein, 2015; Grawe, 2018; Guibalt, 2016). According to Grawe (2018), traditionally strong higher education markets have struggled with migration within the United States toward the American Southwest. Grawe (2018) also notes that the Great Recession caused a drought in birthrates that has put downward pressure on the number of high school graduates seeking a higher education. Additional disruptions in higher education include a change in the concept of value resulting in the commoditization of higher education (Tomlinson, 2018); a customer-centric mentality incentivizing students to be more price sensitive, making affordable public universities more attractive (Wright, 2015); and changes in the demographics of students entering post-secondary education (Grawe, 2018).

Institutions often find themselves avoiding the necessary strategic tradeoffs to find new students outside of their traditional segments. Guibalt (2016) contends that few institutions have embraced a truly customer-centric business model that defines the customer experience as a creation of both the institution and the student. Mark (2013) asserts that many institutions stunt the learning experience by indulging the short-term gratification of students but can change such a dynamic with a better understanding of what they are seeking and how to provide

it. Such efforts inherently provide a better product but require institutions to apply customer marketing techniques, which they currently do not have the competencies or business acumen to leverage (Guilbalt, 2016). Disruptive innovations have also resulted in the creation of strategic alliances characterized by shared resources.

As the market for higher education becomes increasingly competitive, post-secondary educational institutions have been incentivized to locate synergistic consolidation opportunities to improve upon academic, student, and institutional operations, otherwise they risk failure (Bielec and Iadarola, 2007; Boling, Mayo, and Helms, 2017; Harrison, Smith, and Kinton, 2017; Mael, 2014; Machovec, 2017). One such consolidation effort is the Online Consortium of Independent Colleges and Universities (OCICU). OCICU has a unique value proposition because it allows members to expand their online course offerings by leveraging those of other members, making it easier for online students to accomplish their educational goals. Mindful of the need for educational institutions to apply data-driven marketing techniques to problems in higher education, this study employs cluster analysis to segment OCICU members. A cluster analysis of member schools will make it possible for OCICU leadership to better examine, locate, and communicate with potential members. More generally, this type of research can help leaders in higher education better understand their competitive position within the market, and therefore how to utilize their competitive position for the deepest market penetration.

## **LITERATURE REVIEW**

The application of cluster analysis to segment consortiums like OCICU is incredibly rare. However, cluster analysis has been applied to different types of segmentation problems in higher education. For example, Ammon, Bowman, and Mourad (2008) used cluster analysis to segment students enrolled at Washtenaw Community College (WCC) in Ann Arbor, Michigan. An example of the application of cluster analysis in an institutional context includes the segmentation of Hispanic Serving Institutions (HSIs) using Integrated Postsecondary Education Data System (IPEDS) data. It was found that there was significant heterogeneity within HSI member institutions, which were then categorized into actionable homogeneous segments (Burbage and Glass, 2022). When applied correctly, cluster analysis can inform decisions surrounding key operational areas including student services, program development, student life, and many other aspects of the student experience that could drive better student acquisition and retention (Johnson et al., 2016). If relatively homogeneous categories of school types can be obtained using cluster analysis, decision-makers in higher education can use cluster analysis to target their customer base more efficiently, potentially enhancing strategic initiatives aimed at attracting, satisfying, servicing, and retaining student customers.

## **METHODOLOGY**

The sample was comprised of 71 colleges and universities that make up the Online Consortium of Independent Colleges and Universities (OCICU). A key differentiator for OCICU is that students from member institutions can register for courses at other member institutions, making it easier to graduate on time while filling spots that would otherwise be empty. While the basic model is like other higher education consortiums, OCICU is larger, and its mode of delivery is entirely online, offering a genuinely unique value proposition to members that would otherwise be impossible to achieve given their relatively small sizes. This study will employ cluster analysis to determine if OCICU members can be segmented, making it easier to implement actionable marketing strategies geared towards enhancing OCICU member acquisition and retention. OCICU member institutions are provided below in

Table 1. As can be seen, OCICU attracts relatively small private liberal arts colleges and universities.

**Table 1.** OCICU Member Institutions

OCICU School Name	
Cardinal Stritch University	Alvernia University
Carlow University	Avila University
Cedar Crest College	Baker University
Chatham University	Belmont Abbey
College of Saint Elizabeth	Bethany College
Concordia University-Texas	Carroll College
Dominican University	Carroll University
Felician University	Centenary University
Heritage University	Chestnut Hill College
Holy Family University	Clarke University
Holy Names University	Culver-Stockton College
Loma Linda University	Dominican University of California
Loyola University-New Orleans	Edgewood College
Madonna University	Gallaudet University
Nebraska Methodist College	Gannon University
Newman University	Gwynedd Mercy University
North Park University	Holy Family College
Notre Dame of Maryland University	Iowa Wesleyan University
Regis University	Juniata College
Saint Leo University	Marywood University
SouthernNew Hampshire University	Mercyhurst University
Spring Hill College	Meredith College
Tennessee Wesleyan University	Millikin University
The Sage Colleges	Mount Saint Joseph University
University of Indianapolis	Mount St Mary's University
University of St Francis	Neumann University
University of St Thomas	Robert Morris University
University of the Incarnate Word	Saint Ambrose University
Ursuline College	Saint Mary's College of California
Walsh University	Saint Michael's College
Seton Hill University	Stevenson University
University of Dubuque	University of Evansville
Union College	Waynesburg University

The first challenge was the discovery and validation of institutional traits that could be subjected to an analysis. In other words, “Do OCICU members have enough common characteristics to form multiple clustered market segments that can allow them to target each segment individually?” Fifty variables were initially chosen through inductive reasoning based on a review of previous literature and were utilized to build a profile of the 71 educational institutions. A K-means cluster analysis was then used to form differentiated groupings of

OCICU member schools. K-means is a machine learning technique used to partition distinct categories of objects (and eventually market segments) in a variety of management contexts, including within higher education (Davari, Noursalehi, & Keramati, 2018).

## RESULTS

The cluster analysis started with an initial assessment over 50 variables categorized by the National Center of Education Statistics (NCES). Key categories of institution-specific descriptors include academics, student services, financial aid, admissions, enrollment, and institutional demographics. To achieve a stable member segmentation, only variables measured in percentage terms were included in preliminary cluster analyses. Descriptions of the variables used to cluster OCICU members are outlined in Table 2 below. Table 3 provides an overview of the descriptive statistics for candidate variables used to cluster samples.

**Table 2.** Key of Candidate Cluster Variables

Candidate Variables	Description
PCT_ADM_TST	The percentage of students to take an admissions test
PCTADM	The percentage of students admitted
ENROLL_YLD	Enrollment yield
PCT_FT	The percentage of full-time students
PCT_PT	The percentage of part-time students
PCT_FEMALE	The percentage of female students
PCT_MALE	The percentage of male students
PCT_WHITE	The percentage of white students
PCT_NONWHITE	The percentage of nonwhite students
PCT_FTFT_FR	The percentage of first-time full-time freshman
PCT_UGRANT	The percentage of students receiving grant aid
PCT_ROA_PGIFT	Private gifts received as a percent of total assets
PCT_ROA_CONTR	Affiliate contributions received as a percent of total assets
PCT_FT_EQUIV	The percentage of full-time equivalent students

**Table 3.** Descriptive Statistics of Analysis Sample

	mean	sd	count
PCT_ADM_TST	16.250	16.752	65.000
PCTADM	69.947	14.323	65.000
ENROLL_YLD	24.346	10.009	65.000
PCT_FT	82.737	10.240	65.000
PCT_PT	17.263	10.240	65.000
PCT_FEMALE	66.043	11.415	65.000
PCT_MALE	33.957	11.415	65.000
PCT_WHITE	59.000	16.901	65.000
PCT_NONWHITE	41.000	16.901	65.000
PCT_FTFT_FR	60.240	18.265	65.000
PCT_UGRANT	38.123	19.221	65.000
PCT_ROA_PG~T	6.833	8.881	65.000
PCT_ROA_CO~R	0.651	2.667	65.000
PCT_FT_EQUIV	67.157	15.095	65.000

It is important for researchers to implement data analytic techniques that support the creation of stable customer segments. A well-defined segmentation of OCICU member schools can be used in subsequent analysis focused on profiling member institutions, predicting higher education outcomes by segment, and analyzing demographic criteria. A variety of statistical techniques including factor analysis with a varimax rotation, correlational analysis, and auxiliary regressions were used to assess the correlational structure of the data to determine the number of cluster variables utilized in the final analysis. Although cluster analyses performed using variables obtained using factor analysis produced similar results to those obtained using correlational analysis, the latter will be emphasized in interpretation. In terms of process, a hierarchical cluster analysis was used to obtain a working solution that was then optimized using k-means.

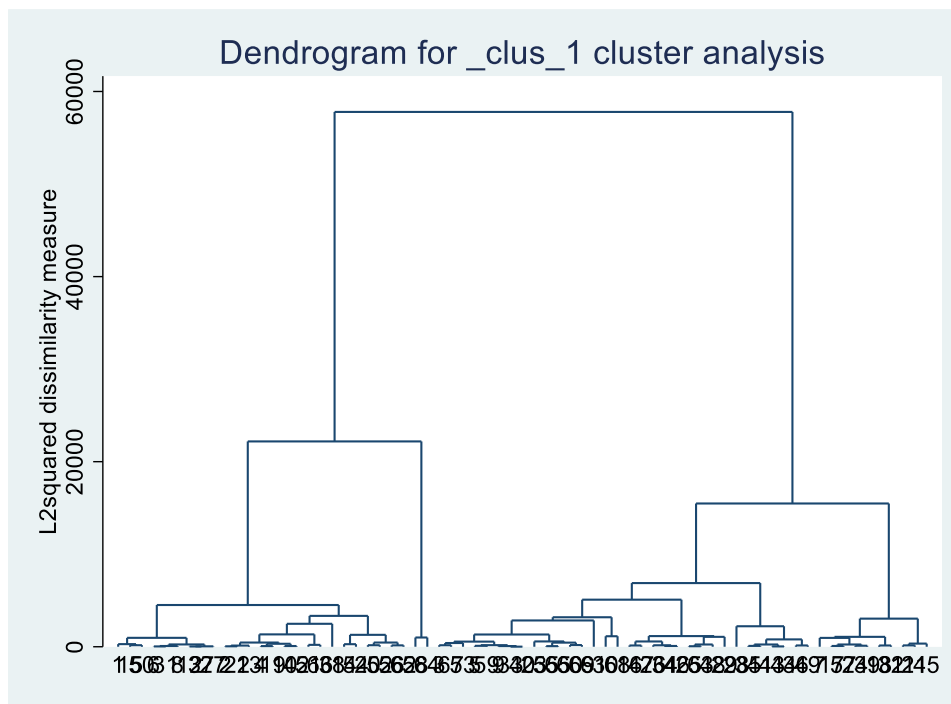
In the assessment of the correlation matrix of candidate variables, pairwise correlations greater than 0.50 were dropped from the analysis. The nine variables used in final hierarchical and non-hierarchical procedures are outlined in Table 4 below. As you can see by looking at the dendrogram, also known as an agglomeration schedule, in Figure 4.1, two major segments drove the findings that emerged within OCICU. This result was further supported by stopping rules used to obtain working groups. It should be noted that the Calinski/Harabasz pseudo-F-statistic was relatively large for three- and four-cluster solutions, which are options that researchers will explore. A two-cluster solution based on a correlational analysis of candidate cluster variables will be used for purposes of the construction of OCICU member profiles and predictive analytics.

**Table 4.** Cluster Variables

Cluster Variables	Description
PCT_ADM_TST	The percentage of students to take an admissions test
PCTADM	The percentage of students admitted
ENROLL_YLD	Enrollment yield
PCT_FEMALE	The percentage of female students
PCT_WHITE	The percentage of white students
PCT_FTFT_FR	The percentage of first-time full-time freshman

PCT_UGRANT	The percentage of students receiving grant aid
PCT_ROA_PGIFT	Private gifts received as a percent of total assets
PCT_ROA_CONTR	Affiliate contributions received as a percent of total assets

**Figure 1.** Agglomeration Schedule of Hierarchical Cluster Analysis



Once the two-cluster solution was obtained through hierarchical analytical techniques, k-means cluster analysis was used to optimize the results, or to solve for the maximum level of within-cluster similarity between OCICU member schools. OCICU member segments were then profiled using clustering variables. As you can see by looking at Table 5 below, OCICU segments differ based on clustering variables. More specifically, statistically significant differences at below the one percent level of significance were observed between OCICU member segments on variables including the percentage of students admitted (PCTADM), the percentage of female students (PCT\_FEMALE), the percentage of white students (PCT\_WHITE), the percentage of first-time full-time freshmen (PCT\_FTFT\_FR), and the percentage of students receiving grant aid (PCT\_UGRANT).

**Table 5. OCICU Segment Profiles**

OCICU_SEG	e(PCTADM)	e(PCT_F~)	e(PCT_W~)	e(PCT_F~)	e(PCT_U~)
1	74.50375	72.96148	48.375	51.61708	55.19328
2	67.27899	61.99384	65.21951	65.28729	28.13007
Total	69.94659	66.04343	59	60.23983	38.12264

Finally, multiple analysis of variance (MANOVA) was used to assess the degree to which identified segments can be used to predict higher education outcomes. Since higher education outcome variables are highly correlated, the predictive validity of the cluster solution was assessed using MANOVA versus analysis of variance (ANOVA), which can result in

biased estimates. Candidates for inclusion in our analysis of outcomes are outlined in Table 6 below. Variables include the one-year retention rate, four-year graduation rate, amount of donative resources, monetary contributions from university affiliates, and the percent of students admitted, a measurement often associated with prestige. After an examination of MANOVA assumptions, the year-to-year retention rate, the four-year graduation rate, and the percent of students admitted were used in the final MANOVA analysis. The results were statistically significant at below the one percent level of significance. Hence, OCICU member groups constructed using cluster analysis can be used to predict outcome variables of interest to leaders in higher education.

**Table 6.** Educational Outcome Variables

Clustering Variable	Description
RET_RTE	The year-to-year retention rate
GR_RATE	The four-year graduation rate
PCTADM	The percentage of students admitted
TTL_ENROLL	Total enrollments
PGIFT	The dollar value of private gifts
CONTRIBUTE	The dollar value of affiliate contributions

## CONCLUSION & DISCUSSION

Even though OCICU member institutions have relatively similar profiles, the current research has illustrated that there are distinct differences between OCICU member institutions that can be articulated, and therefore targeted in a marketing context. It is recommended that the current study be extended to include a more complete analysis of how OCICU member segments differ based on demographic variables measured at the level of the institution. These results can then be used by OCICU leadership to better identify potential OCICU member candidates based on their most notable characteristics. Finally, the value of the research goes beyond just this consortium – how can small, tuition-driven liberal arts colleges and universities effectively consolidate to survive the changing economic climate (Leonard 2014) that surrounds them and higher education more broadly? Can transregional university alliances such as OCICU help smaller institutions survive and thrive in an era characterized by business process reengineering, strategic alliances, mergers, and acquisitions? To fully address these questions, it is crucial that universities use data-driven marketing analytics to differentiate themselves by adding value by meeting customer needs.

## REFERENCES

- Ammon, B. V., Bowman, J., & Mourad, R. (2008). Who Are Our Students? Cluster Analysis as a Tool for Understanding Community College Student Populations. *Journal of Applied Research in the Community College*, 16(1), 32-44.
- Burbage, A. K., & Glass, C. R. (2022). The Evolving Identities of HSI and Differentiated Funding. *Educational Policy*, 0(0). <https://doi.org/10.1177/08959048221120274>
- Bielec, J. A., & Iadarola, A. (2007). Strategic collaboration: Building a major league technology infrastructure on a small college budget. *New Directions for Higher Education*, 207(140), 111-120.

- Boling, J. R., Mayo, D. T., & Helms, M. M. (2017). Complementarity merger as a driver of change and growth in higher education. *Journal of Organizational Change*, 30(1), 27-42.
- Davari, M., Noursalehi, P., & Keramati, A. (2018, June 9). Data mining approach to professional education market segmentation: a case study. *Journal of Marketing in Higher Education*, 45-66.
- de Waal, T., Pannekoek, J., & Scholtus, S. (2011). *Handbook of Statistical Data Editing and Imputation* (Vol. 563). Hoboken, New Jersey: John Wiley & Sons.
- Einstein, M. (2015, September 1). Nothing for Money and Your Work for Free: Internships and the Marketing of Higher Education. *tripleC: Communication, Capitalism Critique*, 13(2), 471-485.
- Grawe, N. D. (2018). *Demographics and the Demand for Higher Education*. Baltimore: Johns Hopkins University Press.
- Guilbalt, M. (2016). Students as customers in higher education: reframing the debate. *Journal of Marketing in Higher Education*, 26(2), 132-142.
- Harrison, J., Smith, D. P., & Kinton, C. (2017, July). Relational regions 'in the making': institutionalizing new regional geographies of higher education. *Regional Studies*, 51(7), 1020-1034.
- Johnson, C. W., Johnson, R., Steigman, M., Odo, C., Vijayan, S., & Tata, D. V. (2016). Appropriately Targeting Group Interventions for Academic Success Adopting the Clinical Model and PAR Profiles. *Educational Researcher*, 45(5), 312-323.
- Higher Ed Dive Team (September 12, 2022). A look at trends in college consolidation since 2016. *HigherEdDive*, accessed September 29, 2022, <https://www.highereddive.com/news/how-many-colleges-and-universities-have-closed-since-2016/539379/>
- Leonard, W. P. (2014). Higher Education's Flawed Recession Response. *The International Journal of Education Management*, 28(2), 257-264.
- Machovec, G. (2017, July). Trends in Higher Education and Library Consortia. *Journal of Library Administration*, 57(5), 577-584.
- Mael, E. (2014, October). When One Plus One Remains One: The Challenges and Triumphs of Merging Two University Libraries. *Library Resources & Technical Services*, 58(4), 265-278.
- Tomlinson, M. (2018, April). Conceptions of the value of higher education in a measured market. *Higher Education*, 711-727.
- Mark, E. (2013). Student satisfaction and the customer focus in higher education. *Journal of Higher Education Policy and Management*, 35(1), 2-10.
- Nuñez, A.-M., Crisp, G., & Elizondo, D. (2016, January/February). Mapping Hispanic-Serving Institutions: A Typology of Institutional Diversity. *Journal of Higher Education*, 87(1), 55-83.
- Wright, R. E. (2015, June). Marketing of Higher Education: Price and Quality. *The Journal of Applied Business and Economics*, 17(2), 66-69.



## **I SMELL LUXURY: ENHANCING THE DESIRABILITY OF SUSTAINABLE PRODUCTS**

**Mona Safizadeh Shabestar, Azad University of Tehran, Iran**  
**Atefeh Yazdanparast, Clark University, USA**  
**Pramod Iyer, Kennesaw State University, USA**

---

### **EXTENDED ABSTRACT**

Sustainable consumption is associated with consumption of goods and services that meet consumer needs without endangering the needs of future generations (OECD, 2002). Responsible marketing practices could encourage recycling, upcycling, reusing, buying less, buying green, buying Fairtrade, saving energy, and supporting good causes. They can also result in delivering sustainable products, services, and innovations (Hagtvedt & Patrick, 2016).

The focus on sustainability is not limited to marketers. Consumers need to consider social responsibility when making purchases (Carrigan & Bosangit, 2016). However, like marketers, consumers are accused of being largely self-serving and primarily interested in their own needs (Brinkmann & Peattie, 2008). Prior research, for instance, shows that luxury buyers consider luxury and sustainability somewhat contradictory (Kapferer & Michaut-Denizeau, 2014). They consider sustainability and ethics much less in their luxury consumption decisions than in their commodity consumption decisions (Davies, Lee, & Ahonkai, 2012). Ko and Megehee (2012), for instance, found that consumers' own pleasure takes precedence in luxury consumption.

Luxury (compared with non-luxury) is associated with superior quality, uniqueness, scarcity, exclusivity, and going beyond need. It often exhibits craftsmanship and expertise, and it is enduring (Kunz, My, & Schmidt, 2020). Given these characteristics, there is an ongoing debate about whether the concepts of luxury and sustainability are compatible. Indeed, evidence suggests that sustainable luxury products are perceived more negatively and seen as less desirable than regular, non-sustainable luxury products (Achabou & Dekhili, 2013).

These findings highlight the need to examine the conditions under which consumers' evaluations of sustainable luxury products can be more favorable. The present research addresses this gap by exploring how perceptions of sustainable luxury products could be improved and consequently, help with consumers' evaluations of these products and downstream consumer responses such as purchase intention and willingness to pay. In doing so, we focus on how sensory cues can lower concerns about the luxurious feel/experience of sustainable materials used in luxury products. Within the scope of experiences through marketing strategies, the simultaneous response of the sensory organs gains special significance to link individuals more emotionally to the product (Wiedman et al., 2013). As luxury products are more than any other products bought for what they mean, beyond what they are, sensory experiences of luxury products gain more relevance in creating superior customer-perceived value.

Existing studies investigating the issues of sustainability in the luxury industry are scarce. No prior research has focused on the use of sensory signals/descriptions to impact

consumers' perception of the sustainable luxury products as related to their product usage experiences. The sensory component of product experience is an important aspect of a luxury product and its associated retail strategy (Wiedman et al., 2013). Consequently, to address consumers' perception of sustainable luxury products, it would be pertinent to stimulate their sensory organs (i.e., eyes, ears, nose, mouth, and skin) as applicable to the product. To that end, the present research aims to examine the role of product messaging designed to stimulate consumers' senses. Specifically, we focus on the sense of smell or olfactory.

An odor refers to the specific impression some entities produce upon the sense of smell through their volatile fumes (Errajaa et al., 2020). Prior research has revealed that humans are able to discriminate more than 10,000 odors (Gilbert, 2008). Thus, it would be safe to imagine that the world or aromas around us affect our reactions (Herz, 2008). Research on olfaction shows the specificities of olfactory perception and in particular the close relation between olfaction and cognition (Errajaa et al., 2020). This relation is attributable to the connection between odors and memory (Herz, 2008). Another specific feature of olfactory perception is that odors can be associated with their source (e.g. a product odor). Hence, odors operate as signals of the existence of something else than themselves. This association mechanism improves memorization of odors and of the devices that produce them, which can facilitate discrimination between them (Maille, 2001).

Prior research has shown that smells can have sedative or stimulating effects and evoke specific memories (Lindstrom 2005). Thus, ambient scent enhances brand attention and also improves brand memory. Companies are also focusing on using the extraordinary power of the human sense of smell and the extraordinary powers of odors in their activities. As such, olfactory marketing is developing in various domains (Errajaa et al., 2020) including fashion, jewelry, and retail. Prior research focusing on olfactory and brands has mainly focused on brand image and recall. However, no prior research has focused on how olfactory cues associated with the sustainable materials used in luxury products could affect consumers' perceptions and their downstream responses to the sustainably made luxury good (vs. the non-sustainable alternatives). This is especially important when customers are faced with sustainable materials (such as recycled plastic, re-purposed materials, etc.) used in the production of the luxury product, which could be perceived as chemically manipulated or processed or degraded from their natural qualities.

The present research examines the effect of olfactory cues on sustainable luxury product perceptions and purchase intentions in two studies. The first study will be a 2 (sustainable vs. non-sustainable) x 2 product messaging (olfactory laden vs. not olfactory laden) between-subjects factorial design with a luxury SUV automobile as the focal product (with genuine leather seat vs. vegan leather seat made of recycled plastic). Data will be collected online using an online survey through Prolific. All measures will be adopted from previously validated scales, and purchase involvement, individual differences in sustainable shopping, and attitude toward the specific luxury brand used in the study will be controlled for. We expect to see an increase in desirability of the sustainable luxury option when the product messaging includes a description of the odor of the car (i.e., the smell of the seat). The second study will be conducted in a lab setting where the olfactory cue will be manipulated through scented fabrics.

Overall, the present research examines the effects of sensory cues on consumers' responses to sustainable luxury products. In doing so, the research contributes to the nascent literature on the effects of haptic cues on consumer behavior (Maille, Morrin, & Reynolds-McIlroy, 2020). The results also contribute to sustainable luxury research by linking this stream of research with sensory marketing. The results are expected to have significant

implications for marketers and luxury brands, given the growing pressure on the luxury sector for recognizing its responsibilities and considering the opportunities related to sustainability in sourcing, manufacturing, and marketing.

## REFERENCES

- Achabou, M. A., & Dekhili, S. (2013). Luxury and sustainable development: Is there a match?. *Journal of business research*, 66(10), 1896-1903.
- Brinkmann, J. and Peattie, K. (2008). Consumer ethics research: reframing the debate about consumption for good. *Electronic Journal of Business Ethics and Organizational Studies*, 13, pp. 22–31.
- Carrigan, M., & Bosangit, C. (2016). The challenges of responsible marketing and consumption. In *Ethics and Morality in Consumption* (pp. 107-126). Routledge.
- Davies, I. A., Lee, Z., & Ahonkhai, I. (2012). Do consumers care about ethical-luxury?. *Journal of business ethics*, 106(1), 37-51.
- Dekhili, S., Achabou, M. A., & Alharbi, F. (2019). Could sustainability improve the promotion of luxury products?. *European Business Review*.
- Doval, J., Singh, E., & Batra, D. G. (2013). Green buzz in luxury brands. *Doval, J., Singh, EP, & Batra, GS Green Buzz in Luxury Brands. Review of Management*, 5.
- Errajaa, K., Daucé, B., & Legohérel, P. (2020). Consumer reactions to olfactory congruence with brand image. *Journal of Retailing and Consumer Services*, 52, 101898.
- Gilbert, N., 2008. *What the Nose Knows*. Crown Publishers.
- Hagtvedt, H., & Patrick, V. M. (2016). Gilt and guilt: should luxury and charity partner at the point of sale?. *Journal of Retailing*, 92(1), 56-64.
- Hennigs, N., Wiedmann, K. P., Klarmann, C., & Behrens, S. (2013). Sustainability as part of the luxury essence: Delivering value through social and environmental excellence. *Journal of Corporate Citizenship*, (52), 25-35.
- Herz, R. S. (1997). Emotion experienced during encoding enhances odor retrieval cue effectiveness. *American Journal of Psychology*, 110, 489-506.
- Kapferer, J. N., & Michaut-Denizeau, A. (2020). Are millennials really more sensitive to sustainable luxury? A cross-generational international comparison of sustainability consciousness when buying luxury. *Journal of Brand Management*, 27(1), 35-47.
- Ko, E., & Megehee, C. M. (2012). Fashion marketing of luxury brands: Recent research issues and contributions. *Journal of Business Research*, 65(10), 1395-1398.
- Kunz, J., May, S., & Schmidt, H. J. (2020). Sustainable luxury: current status and perspectives for future research. *Business Research*, 13(2), 541-601.
- Lindstrom, M. (2005). *Brand Sense: Build Powerful Brands through Touch, Taste, Smell. Sight, and Sound*. New York: The Free Press.
- Maille, V. (2001). Impact of olfactory stimuli on consumer behavior: A state of art. *Recherche et Applications en Marketing*, 16, 51-75.

Maille, V., Morrin, M., & Reynolds-McIlroy, R. (2020). On the other hand...: Enhancing promotional effectiveness with haptic cues. *Journal of Marketing Research*, 57(1), 100-117.

OECD (2002). *Towards Sustainable Household Consumption? Trends and Policies in OECD Countries*. Paris: OECD.

Wiedmann, K. P., Hennigs, N., Klarmann, C., & Behrens, S. (2013). Creating multi-sensory experiences in luxury marketing. *Marketing Review St. Gallen*, 30(6), 60-69.

## **REGIONAL LOYALTY AND FORGIVENESS: DOES ORIGIN OF A BRAND MATTER?**

**Komal Karani, Lamar University**

---

### **EXTENDED ABSTRACT**

This research investigates consumers' motivation behind forgiveness and analyzes if brand origin makes a difference. It specifically explores if consumers were more willing to forgive brands that they perceived as sharing their regional identity.

In the relationship between consumers and their loved brands, sometimes consumers' expectations are not met. One instance of this is when even good companies end up committing violations of trust (Aaker, Fournier, & Brasel, 2004). When it comes to food companies, contamination issues are one of the biggest violations of trust that can occur. When those happen, companies need to work hard to earn their consumers' forgiveness and eventually trust back. Forgiveness is a prerequisite to restoration of a harmonious relationship (Finkel, Rusbult, Kumashiro, & Hannon, 2002).

Understanding forgiveness is of great importance to companies as that might help organizations in actions designed to restore a positive relationship with customers (Tsarenko & Rooslani, 2011). Forgiveness has roots in theology, philosophy, psychology, and law. (Xie & Peng, 2009) based their definition of consumer forgiveness on Finkel et. al (2002)'s relationship perspective and described it as consumers' willingness to give up retaliation, alienation, and other destructive behaviors, and to respond in constructive ways after an organizational violation of trust and the related recovery efforts. Even though forgiveness has been heavily researched, there are still some unanswered questions about why consumers are more inclined to forgive some brands as compared to others. Some factors proposed are the degree of control that the company had over the failure, as perceived by the consumers, consumers' brand relationships, and customers' satisfaction levels with the company prior to the transgression (Karani, 2021). These factors partially explain forgiveness but there are research gaps. A recent qualitative exploratory research study proposed regional loyalty as one of the factors that may influence forgiveness after a transgression (Karani, 2021). The next step is to quantitatively test the findings of the previous qualitative research. This research aims to do that.

#### **Context:**

This research is rooted in the context of multiple listeria contamination scandals that hit a much-loved ice cream manufacturing brand (hereby referred to as ABC). Usually when a food company is affected by a contamination, the initial reactions range from anger to disappointment. However, in the case of this ice cream brand, even though some consumers were sickened and there were even a couple of deaths, support for the brand appeared to stay high. News media covered prayer vigils that were held for the brand's recovery with multiple prominent figures including the state senator expressing their support for the brand. Consumers on social media also expressed eagerness to see the brand back on the shelves. This research explores forgiveness in the face of transgressions (Karani, 2021).

Research Methodology:

This research uses an online survey with open ended as well as close ended questions. In the first section, the questions aim to get to the motivations behind why consumers, who are loyal to a particular brand, purchased it again once it was back in the stores. In the second section, the survey specifically measures feelings of loyalty towards the state or region that the brand originates from. There is a manipulation check included to see if respondents can accurately identify where the brand originates from. The data analysis will use a combination of regression and structural equation modeling tools.

**References**

- Aaker, J., Fournier, S., & Brasel, S. (2004, July). When Good Brands Do Bad. *Journal of Consumer Research*(31), 1-16.
- Finkel, E., Rusbult, C., Kumashiro, M., & Hannon, P. (2002). Dealing with betrayal in close relationships: does commitment promote forgiveness? *Journal of Personal and Social Psychology*, 82(6), 956-974.
- Karani, K. S. (2021). Forgiving a Loved Brand in the Face of Transgression: An exploratory Study. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 119-131.
- Tsarenko, Y., & Rooslani, T. D. (2011). A transactional model of forgiveness in the service failure context: a customer-driven approach. *Journal Of Service Marketing*, 25(5), 381-392.
- Xie, Y., & Peng, S. (2009). How to Repair Customer Trust after Negative Publicity: The Roles of Competence, Integrity, Benevolence, and Forgiveness. *Psychology & Marketing*, 572-589.

# CONSUMER BEHAVIOR AND PSYCHOLOGY

---

## ON THE APPLICATION OF MICRO EXPRESSION PSYCHOLOGY IN INSURANCE SALES

**Zhe Chen, Hunan University of Technology and Business  
Lei Zhang, Modern Wealth Capital Management Co., Ltd**

Micro-expression psychology has been widely used in the field of lie detection and criminal investigation. In insurance sales, especially in the sales interview, micro-expressions can be used<sup>1</sup> to determine the real thoughts of customers, so as to reduce the misunderstanding in communication and improve the success rate of insurance sales. This paper takes the psychology of micro-expressions as the theoretical basis, takes insurance sales as the main research object, studies insurance sales and its efficiency improvement from the perspective of micro-expressions psychology, explains the types of micro-expressions, starts from facial micro-expressions, systematically discusses the use of micro-expressions in insurance sales scenarios and the possible effects, in order to provide practical micro-expression management methods for insurance sales and promote the development of insurance sales industry.

**Key words:** micro expression psychology, facial micro expression, insurance sales

### **1. Research background and analysis of research status**

#### **1.1 Research Background and Significance**

In recent years, micro-expression psychology, as a sub-discipline of psychology, has gradually emerged and become more and more popular. The continuous rise of the psychology boom has promoted the rapid development of micro-expression psychology; it has also made micro-expression psychology popularized rapidly. In the real society, as long as dealing with people, micro-expressions will play its unique role in an invisible way. Micro-expressions not only include facial expressions, but also body expressions, verbal expressions and behavioral expressions of people are in the scope of micro-expressions.

Insurance sales is an extremely important part of China's insurance industry. From the perspective of insurance market system structure, the current insurance market system structure in China is not perfect. China's insurance market is not sufficiently market-oriented and is still in the primary stage. From the social level, the society does not have a high

---

<sup>1</sup> \*Corresponding author. Lei Zhang

awareness of insurance, while there is a lack of professional talents. Therefore, it is extremely necessary to improve the efficiency of insurance sales.

Although significant progress has been made in micro-expression recognition, cases of comprehensive research combined with insurance sales methods are still rare, leading to unsatisfactory results in the practical application of micro-expression psychology in insurance sales. Based on the psychological perspective, this paper firstly systematically and regularly composes the psychological basis of micro-expression recognition and facial expressions of emotions; secondly, analyzes the feasibility and necessity of micro-expression psychology based on insurance sales industry; finally, based on micro-expression psychology, discusses how to use micro-expression psychology to judge the psychology of customers in this aspect of insurance sales, so as to facilitate the occurrence of sales interview transactions and In the process of interpersonal interaction in insurance sales, the ability of "understanding" expressions is improved, and the effectiveness of micro-expression recognition is further improved, as well as the expected direction of product transactions in insurance sales situations.

## **1.2 Status of domestic and international research**

For micro-expression psychology, taking domestic research as an example, Liu Yongjin's team from Tsinghua University proposed a micro-expression recognition method based on light basin alignment and main direction averaged optical flow features; Zhang Junping's team from Fudan University proposed face dynamic mapping with optical flow to portray the difference of micro-expression motion granularity; Ben Chengye's team from Shandong University proposed tensor representation of maximum edge projection for micro-expression recognition, etc.

The mainstream of foreign research is also similar to that in China. Take John See's team at Multimedia University in Malaysia as an example, in their published paper, they compare current micro-expression detection and recognition algorithms experimentally. Moi Hoon Yap's team at Manchester Metropolitan University, UK, used HOG features combined with personalized baselines for micro-expression detection, and they published a micro-expression database SAMM.

By analyzing the research on micro-expression psychology at home and abroad, it can be seen that the main research directions at home and abroad mostly stay in the integration of mathematical methods and physical methods for deeper expansion based on the original micro-expression psychology findings, so as to obtain more accurate data, and less integration and analysis of other industry phenomena, which opens a new direction for the organic combination of micro-expression psychology and insurance sales.

## **2. Definition of micro-expressions**

### **2.1 What is micro-expression**

Micro-expressions belong to the category of psychological research. Micro-expressions are the uncontrolled contraction of facial muscles in a state of psychological inhibition, and they are inherited from human evolution over a long period of time. Micro-expressions were first discovered in 1969 by Professor Ekman, a famous psychologist, in a video interview with a depressed patient, and successfully detected the patient's deliberate lies to obtain a



chance to be discharged from the hospital. Compared to ordinary expressions, micro-expressions have distinctly different external characteristics such as short duration, weak changes and fewer action areas. Micro-expressions are fleeting and usually not easily perceived by people. Micro-expressions are more likely to reflect people's true feelings and motives than the expressions they make consciously. Although people may ignore "micro-expressions," the human brain is still influenced by them and changes its understanding of other people's expressions.

## **2.2 Classification of facial microexpression**

People usually have seven types of expressions: happy, sad, scared, angry, disgusted, surprised, and contemptuous, each of which conveys a different meaning. For example, when people are happy, their facial movements include: the corners of their mouths are raised, cheeks are wrinkled, eyelids are contracted, and "crow's feet" are formed at the end of their eyes. When people are sad, facial features include squinting, tightening of the eyebrows, pulling down the corners of the mouth, lifting or tightening of the chin, etc. Facial expressions usually appear instantaneously on the face, and these reactions occur quickly after an emotionally evocative event and are difficult to suppress, so we can quickly determine and understand a person's true feelings and emotions at the time of the event from facial micro-expressions.

The recognition of facial expressions usually starts from the facial organs, because the eyes and the mouth are the organs with the most significant changes in facial muscles, so this paper takes the eyes and the mouth as an example for micro-expression analysis.

The light-sensitive cornea at the back of the eye contains 137 million cells that transmit the information received to the brain. These photoreceptor cells can process 1.5 million messages at the same time. Scientists have done a detailed study of the eye. The eye is an extension of the brain in the orbit, and there are tertiary neurons at the bottom of the eye, similar to the cortical cells of the brain, which have the ability to analyze and synthesize; and the changes of the pupil and the activities of the eye are directly governed by the brain nerves, so human feelings are naturally reflected from the eye. Eye movements contain many psychological secrets, the following are seven common eye movements.

(1) look directly at each other: look directly at each other usually conveys the message that the two sides are relaxed together, confident, if the state of conversation is reflected in the characteristics of concentration.

(2) prolonged "closed eyes": "closed eyes", cover both eyes, drooping eyelids and other behaviors to express resistance to communication.

(3) Frequent blinking: Psychologists and somatic experts have found that tension or confusion can lead to an increase in the frequency of blinking. When a person is lying or under increased stress, they will blink frequently. If the communication is between clients at work, you may want to consider whether the communication topic is too stressful.

(4) Eye rolls: Turning the eyes from side to side or looking down usually indicates "processing information".

(5) The corners of the eyes are slightly wrinkled, tightly wrinkled: slightly wrinkled usually accompanied by a smile, because when people are sincerely happy, the corners of the

eyes will appear wrinkled. And when angry, the corner of the eye will be tightly wrinkled. Micro-frown and tight frown are not only the degree of skin in the corners of the eyes, but usually assist in understanding the person's emotions through facial expressions.

(6) Averted gaze: Avoiding eye contact during conversation indicates dishonesty or untrustworthiness, so try to avoid averted gaze during conversation.

(7) Staring: Staring is not only the degree of eyelid elongation, but people usually feel that their eyes have become bigger and have a look because of the dilated pupils. Several studies have shown that the light in the eyes will be reflected through the pupil due to emotional changes. Therefore, by observing the pupils can be a good judge of emotions. When you are happy, your pupils dilate, reflecting more light, and your eyes become luminous. When you are sad, the pupil narrows, the reflected light becomes smaller, and the eyes become dull.

The role of the mouth is to express verbally and give vent to inner feelings. In interpersonal communication, in addition to verbal communication, mouth movements are also abundant. It is more difficult to observe mouth movements than eyes, because mouth changes are more subtle. People usually look at each other when communicating, so mouth movements are mostly ignored, but in communication and dialogue scenarios we can understand more about each other's psychological emotions through mouth movements. Psychology tells us that the muscles of the human face will change with the change of feelings, the mouth muscles are the most obvious. We can classify the mouth pose into various types of movements according to the curvature of the mouth, open or closed, up or down, pursed or relaxed. In order to assist eye expressions to understand inner thoughts, scientists have listed several common mouth expressions.

(1) Pursed lips: When people face stress, a common reaction is to hide or purse their lips. From a psychological point of view, pursing one's lips is a sign of inhibition. It means that the person is anxious and has more worries

(2) The corners of the mouth slightly upward: this one expression can be judged by the first meeting, often with this action is usually more intelligent, lively and outgoing, more broad-minded.

(3) Skimming: Skimming refers to the action of the lower lip reaching forward and the corners of the mouth dropping. This is the opposite of the joyful feelings expressed by the corners of the mouth rising upwards, the skimming action usually expresses negative emotions.

### **3. The feasibility and necessity of using micro-expressions in insurance sales**

Micro-expression psychology is widely used in the fields of interpersonal communication and medicine, and research on micro-expressions has been applied to national security, judicial system, medical clinical and political elections in many countries around the world. In the field of national security, some well-trained terrorists and other dangerous people may easily pass the lie detector test, but through micro-expressions, the real expressions under their false surfaces can usually be detected. People with schizophrenia can benefit from METT training to return their micro-expression recognition to normal. Because

people have the same physiological basis, it is easy to draw some generalized conclusions from this and to verify them repeatedly. However, the same behavior can represent different meanings due to the influence of their respective cultures and other social contexts. At the same time, because of the uniqueness of human beings, even the same reaction can have subtle differences, and such subtle differences can lead to understanding bias in interpersonal communication, and the interpretation of phenomena through micro-expression psychology can reduce the understanding bias and the real feelings of people in special circumstances. It can be concluded that micro-expression psychology is feasible to be used in other professional fields.

The development of China's insurance industry is in its initial stage, and there are problems such as insufficient analysis and grasp of the market, not close enough to the needs of insurance customers in the design of insurance types and insurance sales, low quality of the insurance team, and poor insurance sales. The most important part of insurance sales is the insurance interview, and customers are too defensive when buying insurance, if they are sold by phone, network information communication, etc., customers usually do not pay attention to it, so face-to-face communication is especially important. The result of the insurance interview almost determines the outcome of the customer in the insurance salesman this time. For insurance sales, it is important for the insurance salesman to provide relevant information service, communicate reasonably with the customer, observe the customer's behavior and predict the result of this interview sales, which is a very important behavior, and micro-expression psychology can help the salesman to explain the customer's psychology, predict the customer's reaction and analyze the success rate of insurance sales, so the combination of micro-expression psychology and insurance sales is not only necessary but also important.

#### **4. The organic combination of micro-expression psychology and insurance sales**

Insurance sales is the act of fully explaining the functions of insurance products to the sales target and guiding the sales target to reach an insurance contract with the insurance institution. The insurance sales process is generally divided into five items: prospective customer prospecting, interview, sales interview, facilitation and objection handling, policy submission and after-sales handling. Prospective client prospecting is a systematic method of deciding who to contact and finding qualified sales targets, which is a major factor in establishing a successful life insurance business. The appointment visit is to contact the prospective client to schedule an appointment to discuss insurance-related matters. The sales interview is the process of making an appointment to meet with the prospective client at a mutually convenient time by letter, telephone or face-to-face, so that the prospective client can be sold life insurance products in person. Facilitation and objection handling is the process of "guiding the customer to make a purchase decision through effective verbal and body language" and "responding to disagreements and even objections from the customer and the target customer". Submission and after-sales handling is the act of keeping the policy intact for the duration of the insurance period, reflecting the customer's wishes and ensuring the customer's interests at all times.

Using the sales interview as a case study, the insurance salesman should plan the interview through the customer's motivation to buy. The insurance salesperson should use simple, non-specific language to get straight to the point in order to control the interview, and

the conversation should be about insurance. The insurance salesperson should only ask one question at a time and ask the prospective client to be as clear and detailed as possible in order to deepen the clarity of communication with the client. The insurance salesperson should often amend the question with "why" and "how" to get the prospective client to answer in the affirmative. Also, be sure to phrase the exact answer in the questions the client asks of you. Do not imply that the prospective client is selfish, lazy, reckless, etc. Do not make moral judgments.

And during and after the sales interview, you can use micro-expression psychology to combine to analyze the interview. Customers want to deal with the psychology of sometimes through the words and actions will show. Excellent salesman should be good at through careful observation, to find and capture the information of the deal, in order to strike while the iron is hot, and eventually lead to the purchase. The ultimate purpose of sales is to deal, and when to deal depends on the timing, which depends on the salesperson's keen insight.

If the customer's eyes are looking at you or the product, in micro-expression psychology represents affirmation, approval. It means that the customer is interested in the product, which is the signal to buy.

You can also pay attention to the customer's body language. Body language in micro-expression psychology belongs to the micro-action reaction, which is out of human instinct, can not be disguised, and can not be disguised. Salesmen should always politely observe the customer's movements. When the customer's body forward with you only about 30-50 cm, in psychology said to imply that he began to trust you, defensiveness downward, the sense of security upward. When the customer is silent and appears to be deep in thought, this is good news, indicating that the customer has entered the evaluation and consideration of the purchase stage, do not interrupt him at this time, but wait for his questions. When the customer frowns or changes his posture, it means he is hesitating, and this is where your professional advice can come in handy.

During the insurance sales process, you can observe the customer's facial expressions to determine the customer's level of satisfaction with the product. If the customer is satisfied and interested in the product from the bottom of his heart. The overall facial muscles are relaxed, the mouth muscles will produce movement, the eyes are squeezed upward, the eyebrows are slightly downward curved, and the most obvious feature is that the natural crow's feet can be observed on the face. But when the customer is dissatisfied with the product and produces a decent fake smile, the face uses different muscles, in this case, their mouth usually expands outward, the eye movement will be very small, and it is usually the lower part of the face that produces the change, while the upper part changes very little or is stiff. So if you find that the customer has such an expression, you may want to change the product introduction idea or change the topic, so as to improve the product sales success power.

In the process of insurance sales, the insurance salesman can also choose the right time to communicate with the customer. From a psychological point of view, customers cooperate and are satisfied with the content of this conversation, they will involuntarily cooperate with each other's voice, speed of speech, tone of voice. Salesman talk fast, the customer will follow fast; salesman talk low, the customer will also follow the whisper. Because the person who occupies the dominant position in the conversation will maintain their own rhythm. So

you can judge the effectiveness of this insurance sale based on the change in the customer's voice and way of speaking.

## 5. Concluding remarks

This paper analyzes the micro-expression responses of the two most representative facial organs, eyes and mouth, and applies them to insurance sales scenarios to conduct systematic research, to flexibly combine micro-expression psychology with customer responses to improve the scientificity of decision making and judgment, to make insurance sales programs more targeted, to improve the communication between insurance marketers and customers and the success rate of insurance sales, and to provide a foundation for future research on micro-expression psychology. It will also lay the foundation for future research on micro-expression psychology in combination with other industries. The research around micro-expressions and insurance sales can also be deepened in momentary interaction, measuring expressions, etc. These researches will open new paths and build new models for combining micro-expressions psychology with industries that require face-to-face communication, such as investment and e-commerce.

## References

- Ma Haotian, *The Psychology of Micro-expressions* [M], Gou Wu Xuan Publishing House, 2016 Edition
- Wang Shujing, Ben appeared Ye, Yan Wenjing, Fu Xiaolan. Research progress and trends of micro-expression detection and recognition [EB/OL]. <https://www.cvmart.net/community/detail/914>
- Micro-expression Psychology [EB/OL]. <https://baike.baidu.com/item/微表情/21779?fr=aladdin>
- Xiao Yun, *The Nine Types of Personality* [M], China Overseas Chinese Publishing House, 2019 Edition
- Yurun Zhu Yuan, Yanxia Wang, Coll Zhang, Jing Yi Wang, Automatic face micro-expression recognition based on key face texture feature extraction [R] Chongqing Normal University, 1009-3044(2022)18-0067-04
- Yu Wenzhao, "Management Psychology", Gansu People's Publishing House 1995
- Hu Juan, *Psychology of Insurance*, East China Normal University Press, 2007 ed.
- Cui-Min Ye . Exploring the influence of marketing psychology on insurance marketing strategy based on the background of big data [J]. *Enterprise Weekly*, 2018, No.098(14):68-69.

## **THE PERSISTENCE OF CONSUMER ETHNOCENTRISM IN AMERICAN CONSUMERS**

**John Story, University of St. Thomas, Houston**  
**Lynn Godwin, University of St. Thomas, Houston**

---

### **EXTENDED ABSTRACT**

In recent decades the world has moved toward a global marketplace, yet many consumers still resist purchasing foreign products. Since Shimp and Sharma (1987) first published their Consumer Ethnocentrism scale, imports to the United States have increased overall and as a percentage of GDP (World Bank 2021). This has the potential to impact consumers' levels of ethnocentrism in two different ways. One possibility is that increasing imports, accompanied by U. S. firms producing in foreign countries and foreign firms moving production to the U. S. (Ireson 2021), would (LeVine 2001) accommodate consumers to imports and make them less ethnocentric. The other possibility is that increasing imports would make this topic more salient for American consumers and increase their levels of ethnocentrism. The purpose of this study was to compare levels of ethnocentrism between two different points in time to determine if levels of consumer ethnocentrism have significantly changed.

Ethnocentrism refers to the propensity of people to perceive their group as the center of their universe (LeVine 2001) and to interpret the actions or attributes of others from their own group's perspective. People tend to accept others who are culturally similar to them and reject anyone different (Shimp and Sharma 1987). The concept of ethnocentrism was expanded to consumer ethnocentrism by Shimp and Sharma (1987) to interpret the behavior of consumers. Consumer ethnocentrism results in a preference for domestically produced goods over imports, strengthened by the perceived impact of imports on local economies, employment, and overall standard of living (Aljukhadar, Boeuf, and Senecal 2021; Carter 2020; Shimp and Sharma 1987).

While ethnocentrism focuses on cultural perceptions and differences, consumer ethnocentrism specifically emphasizes attitudes toward purchases of products produced in foreign countries (Aljukhadar, Boeuf, and Senecal 2021; Shimp and Sharma 1987). These product purchase perceptions not only include perceptions of relative quality but also include self-interest concerns, related to the impact on jobs and the national economy, and patriotism, in support of domestic workers and businesses. These views result in consumers having negative attitudes towards purchases of foreign products and any consumers making those purchases.

There are many reasons that levels of consumer ethnocentrism may have changed over the last three decades. According to World Bank statistics, imports to the U. S. in 1993 were approximately 10.5% of gross domestic product (World Bank 2021). By 2019 these had increased to 14.5%, a 38.5% increase. In addition, unemployment in 1993 averaged about 6.5%, while in 2020 it reached a high of 14.8% (Bureau of Labor Statistics 2021). Americans, feeling the pressures of unemployment, inflation, and increased imports may have higher levels of ethnocentrism.

This study seeks to answer two specific research questions. The first is whether consumer ethnocentrism has changed over the last few decades. The second is whether levels of ethnocentrism vary by age, specifically across previously defined generational cohorts

(Howe and Strauss 2000). The authors have a dataset collected in 1993 that measured levels of consumer ethnocentrism among a sample of U. S. consumers. This was augmented with a 2021 study. An online survey was used, and respondents were recruited using Amazon Mechanical Turk, an online crowdsourcing marketplace. For this study, 312 respondents rated their level of agreement with 10 items from the CETSCALE, developed by Shimp and Sharma (1987). Demographic data were then collected for all respondents.

To answer the first research question, regarding levels of ethnocentrism in 2021 compared to 1993, ethnocentrism was measured, and mean levels were compared between the datasets. After testing the 10-item CETSCALE for reliability, an independent samples t-test was performed. In 2021 respondents were more ethnocentric in 2021 ( $M = 5.17$ ,  $SD = 1.25$ ) than a similar sample of consumers in 1993 ( $M = 4.50$ ,  $SD = 1.12$ );  $t(619) = 7.09$ ,  $p < .001$ . One potential issue with this result is that the mix of ages in the two samples was not controlled. To test whether age differences might impact the overall result, respondents were grouped by age into generational cohorts, and the levels of ethnocentrism were compared across these groups. Three groups were created: Baby Boomers, Generation Xers, and Millennials. A one-way ANOVA was performed to test for an effect of generation on consumer ethnocentrism. The one-way ANOVA revealed no significant difference in consumer ethnocentrism across the generational groups ( $F(3, 305) = 1.02$ ,  $p = .385$ ).

In conclusion, rather than accommodating to increased imports, produced by both foreign and American brands, U. S. consumers have become more ethnocentric. We are consuming an increasing quantity of foreign products, but don't like the idea of it. Future studies will explore this effect in greater detail.

## REFERENCES

- Aljukhadar, Muhammad, Benjamin Boeuf, and Sylvain Senecal (2021), "Does consumer ethnocentrism impact international shopping? A theory of social class divide.," *Psychology & Marketing*, 38 (5), 735–44.
- Bureau of Labor Statistics (2021), "Unemployment Statistics," (accessed November 21, 2021), [available at <https://www.bls.gov/opub/mlr/1993/>].
- Carter, Larry L. (2020), "The Effects of Country-of-Origin Image, Consumer Ethnocentrism, and Animosity upon Foreign Product Purchases.," *Journal of Marketing Development & Competitiveness*, 14 (2), 9–23.
- Howe, Neil and William Strauss (2000), *Millennials Rising: the next great generation*, New York: Vintage Books.
- Ireson, Nelson (2021), "My Car is Made Where? 25 Vehicles With Surprising Birthplaces," *Kelley Blue Book*.
- LeVine, R.A. (2001), "Ethnocentrism," in *International Encyclopedia of the Social & Behavioral Sciences*, N. J. Smelser and P. B. Baltes, eds., Oxford: Pergamon, 4852–54.
- Shimp, Terence A. and Subhash Sharma (1987), "Consumer Ethnocentrism: Construction and Validation of the CETSCALE.," *Journal of Marketing Research (JMR)*, 24 (3), 280–89.

World Bank (2021), “Imports of goods and services (% of GDP) - United States | Data,” *Imports of Goods and Services*, (accessed December 21, 2021), [available at <https://data.worldbank.org/indicator/NE.IMP.GNFS.ZS?locations=US>].



**“MY MORALITY DO NOT ALLOW ME PUTTING OTHERS AT RISK”: MORAL OBLIGATION AS A MEDIATOR BETWEEN THE BIG 5 PERSONALITY TRAITS AND SHOPPING DESTINATIONS**

Swagata Chakraborty, University of North Texas  
Amrut Sadachar, Auburn University

---

**BACKGROUND AND SETTING**

The global pandemic, COVID-19, has impacted the lives of people across the world. However, the psychological response to the pandemic cannot be the same for everybody. Since personality traits shape how people respond to the different situations in life (John et al., 1991), an individual’s personality traits should be a guiding factor on how he/she/they react to the different consequences of the pandemic. According to John et al.’s (1991) big 5 personality model, people’s personalities could be described in terms of 5 major traits –openness (i.e., someone who is imaginative and likes to do new things), conscientiousness (i.e., someone who is self-disciplined and reliable), extraversion (e.g., someone who is talkative and assertive), agreeableness (i.e., someone who is compliant and helpful), and neuroticism (e.g., someone who worries a lot and gets nervous easily). Despite the increase in online shopping amid the pandemic (Koch et al., 2020) a segment of consumers still shopped from physical stores (Akhtar et al., 2020). Therefore, not all the consumers preferred to shop online amid the pandemic, indicating how different personality traits may have influenced consumers’ decision for shopping online or in-store. One of the reasons for shopping online is to stop the spread of the disease (Chang & Meyerhoefer, 2020). This decision of shopping online to stop the spread of the virus indicates an individual’s moral obligation to the society. Moral obligation is defined as an individual’s perceived sense of duty which is not imposed by any external pressure (Mendoca et al., 2018). Recent studies have shown that moral obligations, moral injury (i.e., the psychological social, and emotional distress after an individual is exposed to a situation that challenges one’s moral judgements), and moral distress (i.e., the emotional or psychological distress that an individual undergoes after being engaged into activities that are opposing to one’s moral beliefs) are impacting people’s response to the pandemic, especially in the healthcare sector (Henderson et al., 2021). There is a gap in the literature on how moral obligations amid the pandemic will influence consumer behavior. Although personality traits are important antecedents of moral decision making (Bratton & Strittmatter, 2013), there is a literature gap on how different personality traits could influence moral obligations amid the global pandemic, COVID-19, and how that moral obligation can influence their choice of shopping destinations (i.e., online and in-store). Thus, we filled an important gap in the literature on how the big 5 personality traits influence consumers’ moral obligations amid the pandemic and how the moral obligation mediates the relationships between the personality traits and the intentions to shop online and in-store. We proposed the following hypotheses:

**H1:** Openness (H1a), conscientiousness (H1b), extraversion (H1c), agreeableness (H1d), and neuroticism (H1e) positively influence moral obligation amid the pandemic; **H2:** Openness (H2a) and extraversion (H2b) negatively influence intention for online shopping; **H3:**

Consciousness (H3a), agreeableness (H3b), and neuroticism (H3c) positively influence intention for online shopping; **H4:** Openness (H4a), conscientiousness (H4b), and extraversion (H4c) positively influence intention for in-store shopping; **H5:** Agreeableness (H5a) and neuroticism (H5b) negatively influence intention for in-store shopping; **H6:** Moral obligation amid pandemic positively influence intention for online shopping (H6a) and negatively influence intention for in-store shopping (H6b); Moral obligation amid the pandemic will mediate the relationship between the big 5 personality and (**H7**) intention for online shopping and (**H8**) in-store shopping.

## DISCUSSION

Conducting a Qualtrics survey with the U.S. national population ( $n = 490$ ) and analyzing the data through structural equation modeling, we found that the big 5 personality traits except for extraversion positively influenced moral obligations amid COVID-19; agreeableness and conscientiousness positively influenced intentions for online shopping directly and via moral obligations; extraversion and neuroticism did not influence intentions for online shopping significantly; openness positively influenced moral obligations which evoked favorable intentions for online shopping; agreeableness and neuroticism negatively influenced in-store shopping intentions; openness and extraversion did not influence in-store shopping intentions significantly; conscientiousness positively influenced in-store purchase intentions.

## REFERENCES

- Bratton, V. K., & Strittmatter, C. (2013). To cheat or not to cheat? The role of personality in academic and business ethics. *Ethics & Behavior*, 23(6), 427-444.
- Chang, H. H., & Meyerhoefer, C. D. (2021). COVID-19 and the demand for online food shopping services: Empirical Evidence from Taiwan. *American Journal of Agricultural Economics*, 103(2), 448-465.
- Henderson, R. K., & Schnall, S. (2021). Disease and disapproval: COVID-19 concern is related to greater moral condemnation. *Evolutionary Psychology*, 19(2), 14747049211021524.
- John, O. P., Donahue, E. M., & Kentle, R. L. (1991). The Big Five Inventory—Versions 4a and 54. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.
- Koch, J., Frommeyer, B., & Schewe, G. (2020). Online shopping motives during the COVID-19 pandemic—lessons from the crisis. *Sustainability*, 12(24), 10247.

## **THE ROLE OF LOVE GIFT-GIVING IN CONSUMERS’ UNIQUENESS SEEKING**

**Lilly Ye, Frostburg State University**  
**Yiming Zhuang, Frostburg State University**  
**Lili Gai, University of Texas at Permian Basin**

---

### **ABSTRACT**

Online shopping is becoming increasingly important for gift shopping, and this is especially true in China. For example, the Guanggun Festival (the Single’s day) which had a record high 5.403 trillion RMB sales in 2021, another record-breaking year. The Single’s day originated from an idea that a single person needs to buy self-gift to comfort himself (or herself) or buy a gift for others to end the single status. It featured many sales and promotions, making it one of the best occasions for gift purchasing, and young consumers were enthusiastic about buying romantic gifts on that day. Meanwhile, many other “love” featured festivals, such as Valentine’s Day, May 20 (I love you day), and Qixi (Chinese Valentine’s day) all drive the sales of online romantic gifts. Giving the growing interests in love gifting in online consumption, this study aims to understand how gift type and gift purpose influence consumers romantic gift purchase intention via need for uniqueness.

A scenario-based survey was conducted to collect the data from Chinese young consumers. The selection of these two products is also based on a pilot study by asking the students what the most popular products are purchased during Valentine’s day. All constructs were adapted from literature.

The survey was sent out to 337 students from a university in China, and final sample size is 299. We used regression to test the relationship proposed in this study. The results suggested when young consumers are buying romantic gift, whether they used it for self-enhancement purpose or love expression purpose, they like to use the gift to as an opportunity to show off the unique aspects of self-image, and the need for uniqueness can further lead to gift shopping. Furthermore, when they buy gift for the other party, they are more likely to choose a unique gift to show off their own self-image in other party’s eyes than they are buying a joint gift.

## THE IMPACT OF MINDFULNESS ON SOCIAL COMPARISON AND SAVINGS

Stephen Juma, Southern Arkansas University, Arkansas  
Gerald Plumlee, Southern Arkansas University, Arkansas

---

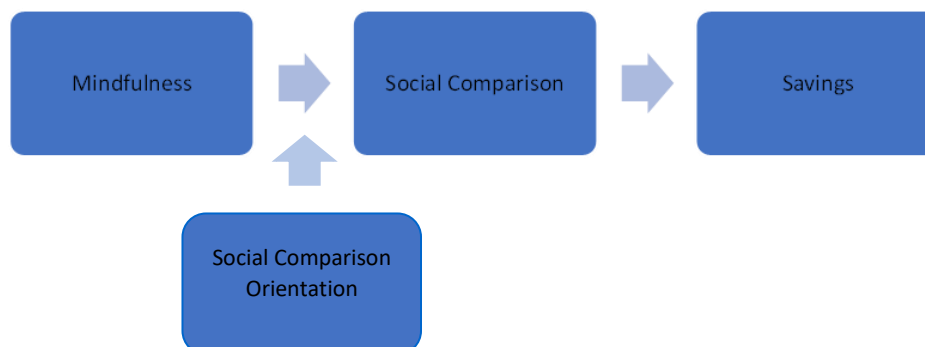
### EXTENDED ABSTRACT

Extant research continues to recognize the importance of mindfulness and its impact on consumer decision-making (e.g., Brunel & Dong 2006; Ndubisi 2014). We aim to extend the literature to study how mindfulness leads to savings through influencing the construal of upward social comparisons.

Social comparison is an important driver of decision-making (Bault 2011) and consumption (Karlsson et al. 2004). For example, if one compares themselves with someone who has a material product that is more expensive and feels inferior as a consequence, they may be inclined to purchase in order to mitigate those negative feelings.

Mindfulness has been linked to self-acceptance (Xu et al. 2015). Hence, we predict that mindfulness will decrease the negative impact of upward social comparison, leading to a decreased drive to purchase, translating to increased savings. Individuals vary in the extent to which they utilize social comparison (Gibbons & Buunk 1999). We predict the effect of mindfulness on savings will be reduced for people who do not tend to engage in social comparison. The proposed model for this research is presented in Figure 1.

**Figure 1: Model**



The following hypotheses are proposed:

- H1:** Mindfulness will increase savings intentions.
- H2:** The effect of mindfulness on savings is mediated by its impact on the construal of upward social comparisons.
- H3:** Individual social comparison orientation moderates the effect of mindfulness on savings, such that the effect of mindfulness on savings is stronger for those with high baseline tendencies for social comparison.

In order to test the hypotheses above, lab experiments will be conducted utilizing brief mindfulness exercises to analyze the relationship between induced mindfulness, upward social comparison construal, and savings intentions. We hope the implications of this study will provide insight into the consumer decision-making processes and have benefits for both consumers and marketing firms alike.

## REFERENCES

- Bault, N., Joffily, M., Rustichini, A., & Coricelli, G. (2011). Medial Prefrontal Cortex and Striatum Mediate the Influence of Social Comparison on the Decision Process. *Proceedings of the National Academy of Sciences*, 108(38), 16044-16049.
- Brunel, F., & Dong, W. (2006). The Role of Mindfulness in Consumer Behavior. *ACR North American Advances*.
- Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in Social Comparison: Development of a Scale of Social Comparison Orientation. *Journal of Personality and Social Psychology*, 76(1), 129.
- Karlsson, N., Dellgran, P., Klingander, B., & Gärling, T. (2004). Household Consumption: Influences of Aspiration Level, Social Comparison, and Money Management. *Journal of Economic Psychology*, 25(6), 753-769.
- Ndubisi, N. O. (2014). Consumer Mindfulness and Marketing Implications. *Psychology & Marketing*, 31(4), 237-250.
- Xu, W., Rodriguez, M. A., Zhang, Q., & Liu, X. (2015). The Mediating Effect of Self-Acceptance in the Relationship Between Mindfulness and Peace of Mind. *Mindfulness*, 6(4), 797-802.

## **CONSUMERS' RESPONSES TO PERSONALIZED SOCIAL NETWORK ADS: A PRIVACY CALCULUS PERSPECTIVE**

**Mona Safizadeh Shabestar, Azad University of Tehran, Iran**  
**Atefeh Yazdanparast, Clark University, USA**

---

### **EXTENDED ABSTRACT**

The development and growth of social networking sites (SNSs) have changed advertising strategies drastically. Online advertisers use SNSs to connect customers with companies, developing new opportunities for consumers to know about brands and products. More recently, personalized advertising on SNS have become more dominant. Personalized advertising is defined as a message and/or delivery channel that is tailored to individual consumers based on their past behaviors and perceived preferences while retaining the principles of mass message distribution (Hayes et al., 2021). A key difference between modern ad personalization and what was possible even a few years ago is the development of hyper-targeted message delivery based on the growing amount of data points, including real-time location and social media relationships about consumers (Dutta & Bilbao-Osorio, 2014). Moreover, today, personalized advertising relies not only on actual data about consumers but also on modeled or derived data (i.e., drawing inferences about consumer characteristics to predict future behavior).

For marketers, personalized advertising offers significant cost efficiencies compared with traditional advertising, as highly tailored messages are delivered to individual consumers who have been identified as viable prospects (Tucker, 2014). These ads are effective because they make the message personal, and a higher level of attention can be achieved by greater ad tailoring. Extant research shows that higher levels of personalization can result higher responsiveness to advertising messages and better click-through rates (Tucker, 2014).

Despite these advantages, there is ample evidence that some forms of personalized messaging are considered unwelcome by consumers. These results have been supported by research showing that some consumers use technologies that allow them to block online and mobile ads (Brinson et al., 2018) and register on Do-Not-Track lists to avoid such ads (Hayes et al., 2021). This contradiction between consumers' stated intentions to protect their privacy online and their tendency to behave in the opposite way by willingly disclosing their personal information, while knowing that these details are used for ad targeting is referred to as the privacy paradox (Norberg et al., 2007).

The present research aims to explore this contradiction and shed more light on the factors that underlie this paradox. Specifically, the present research examines the relationship between perceived personalization of ads on SNSs and ad avoidance and skepticism. To that end, we draw on privacy calculus. The privacy calculus focuses on privacy concerns, risks, trust, and overriding interests. Privacy calculus plays a central role in the analysis of individual disclosure behavior in a variety of contexts and situations, including location-based marketing and SNSs (Zhu et al., 2017; Tran, 2017). Recent research has demonstrated that the characteristics of SNSs offer additional insights into how users assess the privacy calculus risk-benefit trade-off. In other words, both cognitive and affective factors affect consumers' privacy calculus (Hayes et al., 2021). We extend the application of privacy

calculus into personalized ads in SNSs and examine the role of attitude toward the SNSs (as attitude is composed of both affective and cognitive elements) on consumers' responses to personalized ads on SNSs. We argue that when consumers have a negative view about the SNS, they might view the ads targeted at them in that specific SNS more negative. As a case in point, consider the backlash against Facebook after the Cambridge Analytica scandal. People became distrustful of Facebook because of Cambridge Analytica, and Facebook has not gained back some users' trust, affecting their responses to ads received in this SNS. Indeed, a report by NBC News (Weisbaum, 2018) indicates that trust in Facebook dropped by 66%, and more than half of social media users have more negative views of Facebook after Cambridge Analytica.

We focus on ad avoidance and ad skepticism to capture negative responses to personalized ads. However, since personalized ads are tailored based on consumers' geographic location, preferences, or prior interactive activities, the viewers believe that ads are more relevant, and could be perceived as more credible (Kim & Han, 2014). Ad credibility captures a positive view of ads and, associated with truthfulness and believability (MacKenzie & Lutz, 1989). Thus, depending on consumers' perceptions of the degree of ad personalization, their view of the relevance and credibility of the ad should vary, which in turn should affect ad skepticism and avoidance. As such, we examine the mediating role of ad credibility in the relationship between perceived personalization of ads and ad avoidance/skepticism.

To examine these relationships, data were collected through an online survey of social network users ( $n = 384$ ; 62.5% female; 53% between 36 to 45 years old). We captured the amount of time users spent on social network on a daily basis and asked participants to answer the questions with respect to the social network that they spent more time on. We then measured attitude toward the social network, perceived ad personalization, perceived ad credibility, ad skepticism, and ad avoidance tendencies. All measures were borrowed from previously validated scales. Data were analyzed using PROCESS Model 1 (for moderation), Model 4 (for mediation), and Model 8 (for moderated mediation) with 10,000 bootstrapped samples and 95% confidence intervals. The results supported the moderating role of attitude toward the SNS, as the confidence interval did not contain a zero (CI:  $-.61$  to  $-.18$ ;  $p < .05$ ). Further and in support of the proposed mediation relationship, the indirect effects of perceived ad personalization on ad avoidance and ad skepticism were significant (CIs did not contain a zero). Moreover, perceived ad personalization positively and significantly affected perceived ad credibility, which then negatively and positively affected ad avoidance and ad skepticism. Finally, the results of moderated mediation were supportive of the proposed relationships, as the indirect effect of highest order interaction was significant (CI:  $-.22$  to  $-.02$ ).

The findings of this research provide further explanation into the contradictory results in extant research regarding consumers' responses to personalized ads in SNSs. Drawing on privacy calculus, we examine both the negative (i.e., ad skepticism and ad avoidance) and positive (i.e., ad credibility) responses of consumers to personalized ads, while considering the role of attitude toward the social networking site delivering the ads. The reputation of SNSs (as captured through consumers' attitudes) affects whether personalized ads are received positively or not. Further, ads are perceived to be more credible, when they are presented to consumers in SNSs that are viewed more favorably by consumers. The results have implications for SNSs and advertisers opting to choose these platforms for targeting consumers and highlight the importance of transparency by SNSs.

## REFERENCES

- Brinson, N. H., Eastin, M. S., & Cicchirillo, V. J. (2018). Reactance to personalization: Understanding the drivers behind the growth of ad blocking. *Journal of Interactive Advertising*, 18(2), 136-147.
- Dutta, S., & Bilbao-Osorio, B. (2014). The global information technology report 2014 – rewards and risks of big data. *INSEAD and World Economic Forum*, 35–93.
- Hayes, J. L., Brinson, N. H., Bott, G. J., & Moeller, C. M. (2021). The influence of consumer–brand relationship on the personalized advertising privacy calculus in social media. *Journal of Interactive Marketing*, 55, 16-30.
- James, T. L., Warkentin, M., & Collignon, S. E. (2015). A dual privacy decision model for online social networks. *Information & Management*, 52(8), 893-908.
- Kim, Y. J., & Han, J. (2014). Why smartphone advertising attracts customers: A model of Web advertising, flow, and personalization. *Computers in human behavior*, 33, 256-269.
- MacKenzie, S. B., & Lutz, R. J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *Journal of marketing*, 53(2), 48-65.
- Norberg, P. A., Horne, D. R., & Horne, D. A. (2007). The privacy paradox: Personal information disclosure intentions versus behaviors. *Journal of consumer affairs*, 41(1), 100-126.
- Tran, T. P. (2017). Personalized ads on Facebook: An effective marketing tool for online marketers. *Journal of Retailing and Consumer Services*, 39, 230-242.
- Tucker, C. E. (2014). Social networks, personalized advertising, and privacy controls. *Journal of marketing research*, 51(5), 546-562.
- Weisbaum, H. (2018). Trust in Facebook has dropped by 66 percent since the Cambridge Analytica scandal, *NBC News*, Retrieved on Oct. 2022 from: <https://www.nbcnews.com/business/consumer/trust-facebook-has-dropped-51-percent-cambridge-analytica-scandal-n867011>
- Zhu, H., Ou, C. X., van den Heuvel, W. J. A., & Liu, H. (2017). Privacy calculus and its utility for personalization services in e-commerce: An analysis of consumer decision-making. *Information & Management*, 54(4), 427-437.



**NEW OUTCOMES ON THE IMPACT OF POLITICAL  
PARODIES TO MOCK A POLITICIAN: THE MEDIATING  
ROLE OF MORAL-CONDEMNING EMOTIONS**

**Nadr El Hana, EDC Paris Business School, France  
Ouidade Sabri, Sorbonne Business School, Paris, France  
Silvia L. Martin, California State University, Los Angeles**

Scholarship on the impact of political parodies to mock a politician has established a strong foothold within the field of marketing research. Unfortunately, to date, much of this body of research has taken a scattershot approach toward studying the impact of political parodies based on a controllable personal stigma. Consequently, current research on political parodies fails to speak fully across the psychology versus political science divide rather than considering both approaches simultaneously. This research aims to bridge this theoretical gap by studying the ability of political parodies based on personal attacks to create positive social media engagement from the parodist point of view is still unexplored.

The content analyses rely on 331 political parodies posted on YouTube from 2012 to 2019 and the use of machine-learning-based analysis of 31,300 comments on those parodies plus an experiment. We contrasted the effectiveness of two types of parodies based on personal attacks depending on the type of stigma depicted: controllable versus uncontrollable.

This research broadens the scope of political parodies by examining the unintentional outcomes of parodies on social media engagement. We demonstrate that, paradoxically, compared to political parodies based on a controllable personal stigma, parodies of uncontrollable stigmas may foster less supportive social media engagement toward the parodist and his/her parody (i.e., likes, shares), especially among individuals who originally were detractors and opponents of the parodied politician. Those effects are mediated by the role of moral-condemning emotions aimed at expressing the inappropriateness of the topic selected by the parodist.

(\*) Contact Author: Silvia Martin, smart236@calstatela.edu

## **HUMOR AND CONTROVERSY IN ONLINE MEDIA: WOULD THEY SAY THAT IN THE NEWSPAPER?**

### **Paper 1**

#### **Humor Theories in Marketing: Exploring the Social Media-Based Brand Roast**

**Sphurti Sewak, Florida International University**

Existing literature on processing of humor has established three pathways: arousal-safety, incongruity resolution and humorous disparagement (Speck, 1991; Flaherty et al., 2004). The arousal-safety humor process relates to the positive affect associated with humor and can be due to an uncomfortable situation or character, ambiguity related to emotions, playfulness, and eventually a “safety judgement” (Speck, 1991). Incongruity resolution humor process is more cognitive with the receiver attempting to resolve an observed incongruity to discern humor. Lastly, humorous disparagement is more intentional since it involves “disparaging” and combines the two previous processes. It starts with mocking someone which leads to arousal and vagueness about the response, eventually resulting in the resolution of incongruity by aiding “misattribution” (Speck, 1991).

This paper examines the prevalent trend of brand roasting on social media and places it in the larger context of existing humor theories in literature. Brand roasting on Twitter often involves the brand mocking or dissing a Twitter user or another brand. Therefore, it directly relates to the disparagement theory of humor. Previous literature establishes that disparagement leads to viewing the situation in a non-serious manner wherein the mocking seems appropriate (Ford and Ferguson, 2004). However, this does not hold true in all cases, especially in public domains. For example, when speakers used disparaging humor in a public address, their ratings of expertise and character were negatively impacted (Hackman, 1988). Similarly, brands’ use of disparagement (self or others) is viewed unfavorably specifically with regards to its competence (Hoang et al., 2020). Moreover, if the target of disparagement is familiar or is liked, then the intended humor is not appreciated (Wicker et al., 1980).

Illustrations of brand roasting:



## Paper 2

### **SEO Manipulation: The Case of Google's Death Penalty Response to BMW**

**Sphurti Sewak, Florida International University**

Students gain better understanding of a concept when case studies are discussed in a classroom setting. To teach them black hat manipulations for Search Engine Optimization (SEO), I include the infamous cases of Google blacklisting BMW and Ricoh. Black hat manipulations refer to websites not adhering to search engine guidelines and resulting in being banned by the search engine (Malaga, 2010). This case study has been documented as one of the worst practices in SEO (Malaga, 2008). BMW was penalized with the "death penalty" and eventually admitted that it might have followed practices deemed inappropriate by search engines (Segal, 2011). Such techniques can have certain legal implications as well (Yoon, 2014).

A case overview and a discussion of its use in the undergraduate digital marketing classroom will bring together the concepts of black hat, SEO, and the growing power of search engines to set the terms of use.

Example of media coverage of the incident of Google blacklisting BMW and Ricoh Germany:

ist Updated: Monday, 6 February 2006, 15:31 GMT

[E-mail this to a friend](#) [Printable version](#)

### **BMW given Google 'death penalty'**

Search giant Google has "blacklisted" German car manufacturer BMW for reaching its guidelines.

Investigations by Google found that BMW's German website influenced search results to ensure top ranking when users searched for "used car."

Google has now reduced BMW's page rank to zero, ensuring the company no longer appears at the top.

BMW admitted using so-called "doorway pages" to boost search rankings, but denied any attempt to mislead users.



Some of the suspect pages already appear to have been removed

## Paper 3

### **Humor, Profanity, and Twitter Shitposting: Is it Okay for Wingstop to Tweet the F-Bomb?**

**Scott D. Roberts, The University of the Incarnate Word**

When is it okay for corporations to commercially communicate in irreverent or profane ways in their advertising, and what are the consequences? This paper will explore several controversial marketing communications, including uses of humor, profanity, and social media “shitposting.”

On September 7, 2022, after a slow-build teaser campaign to announce their new chicken sandwich line-up, WingStop posted a single-word, context-free tweet: “fuck” – the tweet received over 500,000 likes (hearts) over the next several days, along with over 100,000 retweets, and nearly 9,000 comments. A follow-up tweet the same day explained the single word expression: “our 12 new chicken sandwiches are so good, they’re SOLD OUT” followed by an exploding head emoji. This tweet brought an additional 12,000+ likes, 1000+ retweets, and another 400+ comments.

Retweets are the basis of virality on Twitter, extending the message’s impressions (and possibly impact) beyond those that follow the original poster. Likewise, Likes have their own viral currency, as Twitter users’ own followers often see what others have liked in their own feed. Comments are less clear-cut. A quick look without a formal sentiment analysis reveals negative consumer responses like “Last time I checked, Wingstop was a family restaurant. My son will not be eating at this restaurant” (@sloughNature) and “... My family has eaten your food weekly for years and this made me sick to my stomach. I LOVE you but can no longer eat here...” (@swoop2019). Some responded with engagements that appeared to enjoy the joke and play along, such as “Y’all good?” (@USofShaymerica) and “Let me know if you need to talk bestie” (@Jason). Another food company chimed in “People don’t know how to behave on this app” (@SlimJim), representing a mild form of shitposting, but vague enough to make the target unclear. A year earlier, PRWeek.com asked whether a string of “horny” tweets were appropriate (Bradley 2021) and if the social media manager would be fired or promoted as a result.

Less obviously in-your-face but still controversial was a 2014 campaign for by Pizza Patrón for a new super-spicy pizza called La Chingona (Garza 2014), a slang term meaning a female “badass.” The verb chingar is one of Mexico’s forms of the f-word, and chingona is differently appreciated by different generations of Spanish speakers. Though the company’s use of Twitter was amateurish at the time, they did make the effort to “complain” about being censored for “being Mexican” (the company did not include Hispanic ownership at the time).

Illustrations of Tweets



What are the risks of such public corporate behavior? Is it appreciated as authentic branding (Hower 2018)? Does it feel improvised and spontaneous (Borah, et al. 2020) and therefore create more value than it destroys? This presentation will explore instances of the behavior and explore and apply underlying marketing theories associated with the phenomenon.

REFERENCES:

## Proceedings of the Association of Collegiate Marketing Educators (2023)

- Borah, A., Banerjee, S., Lin, Y., Jain, A., & Eisingerich, A.B. (2020). Improvised marketing interventions in social media. *Journal of Marketing*, 84(2), 69-91.
- Bradley, D. (May 13, 2021). Will Wingstop's social media manager get fired or promoted for "horny" tweets? Twitter users weigh in. *PR Week*, accessed September 27, 2022, <https://www.prweek.com/article/1715961/will-wingstops-social-media-manager-fired-promoted-horny-tweets-twitter-users-weigh>.
- Flaherty, K., Weinberger, M. G., & Gulas, C. S. (2004). The impact of perceived humor, product type, and humor style in radio advertising. *Journal of Current Issues & Research in Advertising*, 26(1), 25-36.
- Ford, T. E., & Ferguson, M. A. (2004). Social consequences of disparagement humor: A prejudiced norm theory. *Personality and social psychology review*, 8(1), 79-94.
- Garza, Lisa Maria (March 23, 2014). Spanish speakers will understand why 'La Chingona' pizza has people freaking out. *Business Insider*, accessed September 27, 2022, <https://www.businessinsider.com/r-pizza-served-with-mexican-slang-causes-stir-in-us-border-states-2014-22>.
- Hackman, M. Z. (1988). Audience reactions to the use of direct and personal disparaging humor in informative public address. *Communication Research Reports*, 5(2), 126-130.
- Hoang, Chi, Klemens Knoferle, and Luk Warlop (2020), "How Different Types of Humor in Advertising Shape Impressions of Firms' Competence and Warmth", in *NA - Advances in Consumer Research, Volume 48*, eds. Jennifer Argo, Tina M. Lowrey, and Hope Jensen Schau, Duluth, MN : Association for Consumer Research, Pages: 930-935.
- Hower, K. (2018). The construction of authenticity in corporate social media. *Language@Internet*, 15(3), urn:nbn:de:0009-7-47693.
- Malaga, R. A. (2008). Worst practices in search engine optimization. *Communications of the ACM*, 51(12), 147-150.
- Malaga, R. A. (2010). Search engine optimization—black and white hat approaches. In *Advances in Computers* (Vol. 78, pp. 1-39).
- Segal, D. (2011). The dirty little secrets of search. *The New York Times*, 12(02).
- Speck, P. S. (1991). The humorous message taxonomy: A framework for the study of humorous ads. *Current issues and research in advertising*, 13(1-2), 1-44.
- Wicker, F. W., Barron, W. L., & Willis, A. C. (1980). Disparagement humor: Dispositions and resolutions. *Journal of Personality and Social Psychology*, 39(4), 701.
- Yoon, Y. J. (2014). Legal Ramifications of Black Hat Search Engine Optimization. *BUJ Sci. & Tech. L.*, 20, 159.

## **SPIRITUALITY, THE TRANSCENDENT SELF, AND ADVERTISING**

**Danny Upshaw, Northwestern State University of Louisiana**  
**Anna Upshaw, Northwestern State University of Louisiana**  
**Marcia Hardy, Northwestern State University of Louisiana**  
**Catherine Fauchaux, Northwestern State University of Louisiana**

---

### **EXTENDED ABSTRACT**

While various researchers have examined the role of marketing in religion, religious marketing, or the effects of consumer religiosity and receptiveness to advertising, we re-examine advertising that uses religious or spiritual messages in light of specific contexts where those messages might thematically align with charity, non-profit, or non-governmental organization causes and perhaps be more effective in promoting those causes. Essentially, we suggest that if a non-profit organization has a cause that aligns with the spiritual beliefs of an individual, and the cause is advertised in terms that help the consumer identify the cause with his/her spiritual beliefs, this may lead to a deeper level of consumer engagement in the ad or the cause. While most of the discussion takes place in terms of religion and spirituality, we do acknowledge that non-religious individuals may still have beliefs that could be described as “spiritual” in nature, and we are working to address those as a part of this research as well.

As with any work involving religion or spirituality, we acknowledge that the practice of religious appeal in advertising for secular causes has generally been shunned. It is rarely used, and this is likely due to potential controversy, the risk of alienating some individuals or groups, or unintentionally portraying one’s group as being aligned with a specific religious or spiritual doctrine. To be clear, these are realistic concerns, but in an age where advertising can be targeted down to the individual level, such as on social media or when using customer relationship management (CRM) databases and software, those fears are somewhat lessened by the highly personalized and instanced nature of the targeting. Technology may allow advertisers to implement strategies for the individual without alienating broader audiences. Also, smaller organizations, particularly those who appeal to small geographic regions in rural areas, where religiosity tends to be more common, may find augmenting their advertising with religious or spiritual overtones more effective.

This work was initially inspired by Maslow’s “hierarchy of needs” (1943, 1954) which discusses the intrinsic needs of all humans. While this hierarchy has received criticism, it is still taught in many psychology and marketing courses and can be used as a basis for advertising needs. For example, a professor might ask, which need in Maslow’s hierarchy of needs does a product fulfill? The top level of Maslow’s original hierarchy was “self-actualization,” but what is less known is that Maslow released a revised version of the hierarchy which included “self-transcendence” (1969, 1970, 1971). This revision suggested that humans should seek “transhumanistic” or “transpersonal” values that “transcend his self” (1969). He noted that while religions have “peak experiences” that help individuals transcend the self, these

experiences may not necessarily be religious in nature and could come from nature, sex, education, and a variety of other sources.

Thus, if Maslow was correct in adding self-transcendence to the top of his hierarchy of needs, then products that help individuals achieve this level of development should be available and provided by the market. While religious, philosophical, or non-profit institutions often fill this role, synergies between these organizations appear to be less common than in their corporate brethren, where corporate social responsibility, and the goodwill that comes from it, are common. Relieved of the stigma that comes from being associated with a specific religion or doctrine, corporations commonly engage in philanthropy, cause-related marketing, or other socially responsible activities. Also seeking to avoid the stigma of a specific religion or doctrine, many charities, non-profits, and non-governmental organizations typically avoid religious or spiritual overtones in their advertising. However, as stated earlier, we posit that certain contexts exist where advertising that includes religious elements that align with a non-profit's goals may increase support for the non-profit's cause and/or the organization itself.

While currently a theoretical work-in-progress, various pre-existing marketing theories lend support to this idea. For example, consumers tend to evaluate products more positively when they feel that the "central purpose" of the product is supported by relevant attributes, even when the attributes might otherwise seem trivial in nature (Brown and Carpenter, 2000). Meyvis and Janiszewski (2002) suggest that customers seek information that reaffirms what they want from a product. Bastardi and Shafir (1998) also point out that customers categorize information into "instrumental" and "noninstrumental" decision making categories with instrumental information being the most influential on decisions. While these works discuss traditional marketplace goods, the common theme is that information that reaffirms what the consumer wants is beneficial to consumer impressions of a product. Here, by adding a religious or spiritual element to advertisements, nonprofits would effectively be adding a new attribute to the product (the charitable service) that they are promoting. This new attribute could align the consumers faith and carry the same positive affects as positive attributes would with traditional goods advertising. However, we acknowledge that this would likely be most effective in a micro-targeting environment, such as online where individual consumers can be targeted, or in local areas with highly homogeneous beliefs systems.

## REFERENCES

- Bastardi, A. and Shafir, E. (1998) "On the Pursuit and Misuse of Useless Information." *Journal of Personality and Social Psychology*, 75 (1), 19-32.
- Brown, C. L., and G. S. Carpenter. 2000. "Why is the Trivial Important? A Reasons-Based Account for the Effects of Trivial Attributes on Choice." *Journal of Consumer Research* 26 (March): 372-385.
- Maslow, Abraham H. (1943). "A theory of human motivation". *Psychological Review*. 50 (4): 370–396.
- Maslow, A. H. (1954). *Motivation and Personality*. New York: Harper and Row.
- Maslow, A. H. (1969). The farther reaches of human nature. *Journal of Transpersonal Psychology*, 1(1), 1–9.
- Maslow, A. H. (1970). *Religions, values, and peak experiences*. New York: Penguin. (Original work published 1966)

Maslow, A. H. (1971). *The farther reaches of human nature*. New York, NY, US: Arkana/Penguin Books.

Meyvis, T. and Janiszewski, C. (2002, March). "Consumers Beliefs about Product Benefits: The Effect of Obviously Irrelevant Product Information." *Journal of Consumer Research*, Vol 28, March 2002, 618-635.



# **DIGITAL AND SOCIAL MEDIA MARKETING**

---

## **ANALYSIS OF INFLUENCING FACTORS OF PATIENTS' ONLINE DOCTOR SELECTION BEHAVIOR FROM THE DUAL-PATH PERSPECTIVE**

**Chengyi Le, East China Jiaotong University, China**  
**Shan Li, East China Jiaotong University, China**  
**Feiyan Qiu, East China Jiaotong University, China**  
**Zhenhao Zhang, East China Jiaotong University, China**  
**Xinya Zhu, East China Jiaotong University, China**

---

### **ABSTRACT**

Online consultation is the core operation link of the online health community. Clarifying the influencing factors of patient users' doctor choice behavior is the key to improving patient users' online medical experience and promoting the conversion rate of consultation. Taking Chinese "Haodaifu" community psychiatric patients as the research object, based on the perspective of ELM-SOR theory, considering the influence of dual-path information processing, constructing a model of influencing factors of patient users' online doctor choice behavior, the analysis is carried out by combining structural equation model and qualitative comparative analysis of fuzzy sets. The patient's doctor choice behavior in the online health community is affected by the factors of the dual route: (1) The content quality and interaction quality of the central route and the reputation credibility of the peripheral route significantly affect the patients' perceived value, and then facilitate the generation of online doctor choice behavior; (2) The degree of user involvement of patients can significantly increase the influence of central route factors on perceived value, while the price of consultation weakens the promoting effect of perceived value on online doctor choice behavior; (3) Qualitative comparative analysis of fuzzy sets found four antecedent configurations that trigger the transformation of subsequent online doctor choice behavior, among which reputation credibility is the most frequently occurring core configuration condition. The research results provide suggestions for the online health community to accurately match the health information needs of patients and optimize the online consultation experience.

### **INTRODUCTION**

Online health community (OHC) is a new type of Internet medical model. Current research on the factors influencing patient health information behavior in OHC usually builds models based on only one dimension. ELM (Elaboration Likelihood Model) theory holds that

patients choose doctors due to their different motivations and abilities (Petty et al., 1983), the information processing is affected by two different routes, center and peripheral. In addition, previous studies often ignored the configuration effect of influencing factors. Therefore, in order to make up for the shortcomings of existing research, this paper studies the influence of different path factors on doctor' choice behavior from the perspective of information processing. Our research questions include: which influencing factors have a significant impact on online medical choice behavior, what are the differences between the two paths, whether user involvement and consultation price play a moderating role, and on this basis, which combination of factors can drive the transformation of online doctor choice behavior.

## **LITERATURE REVIEW**

Regarding the research on patients' doctor choice behavior in online health communities, there are literatures that take doctors' online reputation and service quality as the main influencing factors (Cao et al., 2017). Liu and Ye (2016) analyzed the influence of online word-of-mouth on patients' doctor choice decision based on the theory of service quality, considering the two aspects of treatment effect and service attitude as well as the moderating effect of disease risk. In addition, information asymmetry between doctors and patients makes trust play a crucial role (Yi et al., 2013). Gong et al (2021) have found that the quality and reputation of doctors can significantly affect patients' doctor choice behavior, and the gender of doctors can enhance this influence. However, these research are only based on the process of service transaction from two aspects: trust and service quality, and regard the impact of doctor related information on users' doctor choice behavior as a single process. In short, the complexity and diversity of the way patients process information need more in-depth research.

ELM theory believes that changes in user attitudes can be processed through two information processing modes: one is central processing, which requires users to analyze the logic and relevance of information with critical thinking, such as information quality (Zeng et al., 2017); the other is peripheral processing, which mainly achieves trust through peripheral information related to the task, such as source credibility (Choi et al., 2019). At the same time, the mode of information processing selected by different users is regulated by the degree of user involvement. SOR theory (Stimulus-Organism-Response) indicates that product attribute characteristics or service quality as a stimulus (S) factor will affect the user's perceived identity and emotional change as an organism (O), thereby promoting the occurrence of a certain behavior (R) of the user (Hewei and Youngsook, 2022).

Therefore, based on the ELM-SOR theory, quality of trust source information is selected as the central path factor, doctor's credibility is selected as the peripheral path factor, perceived value is used as the mediating factor, and user involvement and consultation price are used as adjustment factors, in order to construct a dual-path model of influencing factors of patients' online doctor choice behavior.

## **RESEARCH METHODOLOGY AND RESULTS**

This paper obtains doctor-patient data from the psychiatry department of the "Haodf.com", the largest online health community in China. In terms of research methods, a combination of quantitative and qualitative analysis was used to analyze the research questions in stages: (1) The factors that significantly affect the online doctor choice behavior were examined by structural equation modeling (SEM); (2) On the basis of the SEM test results, the fuzzy set qualitative comparative analysis (fsQCA) is used to reveal how the

combination of significant influencing factors further drives the transformation of online doctor choice behavior from the perspective of configuration.

From the results, the SEM model test found that the assumptions about the interaction quality, content quality, reputation credibility, perceived value, and consultation price of the central route passed the test, and the user involvement degree had a significant impact on the relationship between central path factors and perceived value. In addition, the fsQCA configuration analysis found four equivalent configurations that contributed to the transformation of online doctor choice behavior.

### **CONCLUSION AND IMPLICATION**

All of these findings are of great significance both in theory and in practice. Theoretically, this study examines the individual effects of factors and the combination effect in the overall relationship, the moderating effect of the patient's user involvement on the dual path was also discussed, so the influence mechanism of the whole process of online doctor choice behavior was deeply analyzed. From the perspective of management practice, this study provides optimization suggestions for the development of online health consultation before, during and after consultation. In the future, a variety of online health community psychiatry data will be expanded to further validate and clarify the conclusions of this study.

### **ACKNOWLEDGEMENT**

This research was funded by the National Natural Science Foundation of China (Project No.72161013, 71761012, and 71861010); Humanities and Social Sciences project of colleges and universities in Jiangxi Province, China (GL20135) and "14th Five-Year Plan" project of Educational Science in Jiangxi Province, China (21YB071).

### **REFERENCES**

- Cao, X., Liu, Y., Zhu, Z., Hu, J., & Chen, X. (2017). Online Selection of a Physician by Patients: Empirical Study from Elaboration Likelihood Perspective. *Computers in Human Behavior*, 73, 403-412.
- Choi, A. A., Cho, D., Yim, D., Moon, J. Y., & Oh, W. (2019). When Seeing Helps Believing: The Interactive Effects of Previews and Reviews on E-book Purchases. *Information Systems Research*, 30(4), 1164-1183.
- Gong, Y., Wang, H., Xia, Q., Zheng, L., & Shi, Y. (2021). Factors that Determine a Patient's Willingness to Physician Selection in Online Healthcare Communities: A Trust Theory Perspective. *Technology in Society*, 64, 101510.
- Hewei, T., & Youngsook, L. (2022). Factors Affecting Continuous Purchase Intention of Fashion Products on Social E-commerce: SOR Model and the Mediating Effect. *Entertainment Computing*, 41, 100474.
- Liu, J., & Ye, Q. (2016). How Price Affect Online Purchase Behavior in Online Healthcare Consulting? Perceived Quality as a Mediator. *ICSH*. Springer, Cham, 196-203.
- Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement. *Journal of Consumer Research*, 10(2), 135-146.
- Yi, Mun. Y., Yoon, Jane. J., Davis, Joshua. M., & Lee, T. (2013). Untangling the Antecedents of Initial Trust in Web-based Health Information: The Roles of Argument Quality, Source Expertise, and User Perceptions of Information Quality and Risk. *Decision support systems*, 55(1), 284-295.
- Zeng, Q., Cheng, X., Zhou, X., & Liu, C. (2017). Study of Public Opinion Dissemination Mechanism on Social Networks Based on Dual-pathway Model. *Information Science*, 35(6), 29-33+43. (in Chinese)

**CAN VISUAL LANGUAGE CONVEY TACTILE  
EXPERIENCE? A STUDY OF THE TACTILE  
COMPENSATION EFFECT OF VISUAL LANGUAGE FOR  
ONLINE PRODUCTS**

**Leng Xionghui, East China Jiaotong University  
Zhou Xiaoyu, East China Jiaotong University  
Du Ping, East China Jiaotong University  
He Yajing, East China Jiaotong University**

---

**ABSTRACT**

There is a common phenomenon of tactile missing in online retail. How to realize consumer tactile compensation is a consensus problem in the field of e-commerce. More and more marketers and scholars convey their ideas via visual display, but few researches have focused on the tactile compensatory effect of visual language. Therefore, based on the visualization theory and mental simulation theory, and through a second-hand data experiment and two simulated experiments, this study confirmed that visual language did have a compensation effect on tactile missing specifically. Haptic cues in metaphorical visual language can actively compensate for consumers' tactile loss, thus affecting the purchase intention. Mental simulation plays a mediating role in the tactile compensation effect. Product type has a moderating effect, and the use of hand (object) haptic cues in metaphorical visual language in tactile functional products (tactile experiential products) can lead to a more active purchase intention. This study not only enriches the theoretical research on the tactile compensation effect of visual language, but also provides valuable management enlightenment for e-commerce enterprises to improve the effectiveness of online product display and online sensory marketing strategies.

**Key words:** visual language; haptic cues; tactile compensation; visual metaphor; mental simulation; online product display

---

**INTRODUCTION**

The competition in online retail market gets more intensified due to the global COVID-19 epidemic (Yi et al., 2022). New technologies represented by the Internet, new media, cloud technology and big data have become new driving forces for the development of media companies (Yi et al., 2021; Waheed et al., 2021), and non-contact consumption will gradually become the main consumption pattern in the post-epidemic era. Non-contact consumption makes consumers unable to truly touch products online before purchase (KPMG International Report, 2017), thus lacking sensory experience (Yoo and Kim, 2014), and triggering great uncertainty about their purchase intention and behavior (Rathee and Rajain, 2019). Therefore, how to remedy the negative consequences caused by the naturally existing sensory barriers of

e-commerce is a recognized key issue in academics. Online retailers should create an appropriate online shopping environment and develop effective visual language marketing strategies (Zheng et al., 2019) to give consumers a perfect connection between online and offline shopping experience (Liao and Yang, 2020; Frassetto et al., 2021; Jai et al., 2021).

Online retail products primarily display via the visual language. In this context, online consumers are unable to touch the products physically, thus leading to a heavy dependence on online sensory experience (Herz and Diamantopoulos, 2017). From the perspective of the visual language, existing studies suggest designing visual elements containing rich tactile information to offer sensory compensation to consumers (McCabe and Nowlis, 2003; Yoo and Kim, 2014; Rodrigues et al., 2017), such as appropriate image sizes (Cornil and Chandon 2016), vivid images to induce tactile imagery (Park, 2006), and product images with tactile information descriptions (Silva et al., 2021), etc., to induce virtual tactile perception for tactile compensation via the visual language of images. However, the visual language display mentioned in existing studies is limited to the product itself, and few studies pay attention to other visual elements outside the product, such as the positive effects of haptic cues' tactile compensation (Maille et al., 2020). In addition, existing researches simply mention that retailers should encourage consumers to conduct mental simulations to receive product sensory information (Liu et al., 2018), but they don't explore deeply specific implementation strategies in combination with visual language communication elements.

Studies have shown that visual language has great advantages in cognitive availability and comprehension over textual language (Blackwell, 1996; Witty, 1977). Visual language has long been widely used in marketing. For example, retailers design different visual languages on packaging to make people perceive their product difference (Vila and Ampuero, 2006; Vollenbroek, 2021) and to influence the people's judgment and attitude towards products (Chrysochou and Grunert, 2014; Delivett et al., 2020). Existing studies have confirmed that in a variety of consumption situations, relevant haptic cues can increase consumers' perception of haptic attributes of products (Ranaweera et al., 2021) and induce mental simulation of product use (Xie et al., 2016). Thus, quality perception, brand attitude and purchase intention are affected (Chen et al., 2019). However, few studies have studied the sensory compensation effect of haptic cues in **metaphorical visual language (i.e., MVL)**. The innovative point of this paper is to delve into how online retailers can effectively design visual language, i.e, to explore designing strategies for haptic cues in online product display. Via haptic cues in MVL, this paper discusses the positive effects, psychological mechanisms and implementation strategies conveying online product tactile attributes and experiences to consumers, which can be applied to the study of online consumer behavior and psychology. This paper can not only promote the research on tactile compensation strategy of online products, but also provide valuable guidance for e-commerce enterprises to implement online sensory marketing strategy.

## LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### THEORETICAL BASIS

#### TOUCH VISUALIZATION THEORY

Neurophysiological studies have found that both tactile and visual modes share a common neural basis in the representation of external stimuli (Sathian, 2016). Further research in cognitive psychology suggests that the information observed through vision can simulate the sense of touch. This is a phenomenon known as the visual-tactile mirror mechanism (Keysers et al., 2004; Zazio et al., 2019; Katsuyama et al., 2018). Accordingly, touch visualization theory suggests that observing another person being touched, seeing an object being touched, or even any visual touch (such as a tree branch beating against a window glass) can lead to the activation of the tactile nervous system involved in the individual somatosensation (Ebisch et al., 2008; Tholen et al., 2020). The touch sharing mechanism will be activated when watching another hand or an object being touched (Kuehn et al., 2018), meaning that participants actually perceived the haptic stimulus of their hands being touched (Kimura and Katayama, 2018; Zazio et al., 2019). This mechanism also further creates a "tactile empathy effect" (Ward et al., 2018). So vicarious touch experience caused by visual touch can help individuals get physical feelings, emotional states and emotional attitudes just like in actual touch (Ebisch et al., 2008; Fahey et al., 2019; Zeugin et al., 2020).

### **MENTAL SIMULATION THEORY**

Mental simulation refers to the imaginary representation of some events and the function or process of a series of events. It is the simulated reappearance of the event in consumers' minds or the vicarious experiences of the described event (Taylor and Schneider, 1989). Mental simulation can be conceptualized as an automatic and unconscious form of mental imagery involving cognitive construction of virtual situations and reconstruction of real situations, and associating with activation of brain regions involved in processing real perceptual information (Elder and Krishna, 2012). Its main function is to improve action readiness and behavior provision, and further affect individual cognition, judgment and behavior (Lee and Choi, 2022). For example, displaying products of tactile attribute in visual language (Park and Yoo, 2020) or verbal descriptions of target objects or extrinsic sensory cues induce the individuals to initiate their mental simulations (Lv et al., 2020), which will facilitate subsequent behavior. Therefore, mental simulation is a marketing strategy often used by marketers to attract consumers' attention and encourage participation, thus changing consumer behavior (Choi et al., 2020).

### **HYPOTHESES DEVELOPMENT**

#### **THE INFLUENCE OF METAPHORICAL VISUAL LANGUAGE HAPTIC CUES ON CONSUMERS' PURCHASE INTENTION**

Visual language has been defined differently in many fields (Erwig et al., 2017). This study follows the definition of visual language by Kahn (1996) and Strothotte and Strothotte (2012). In a broad sense, any type of non-textual visual communication medium (including art, images, maps, charts, etc.) can integrate visual elements into a unified communication unit, and a visual language is formed. The cognitive availability advantage of visual language comes from its picture characteristics (Blackwell, 1996). Individuals process visual language with approximately 20 billion brain neurons to help them analyze quickly and integrate relationships into visual elements in terms of visual structure (Emanuel and Challons-Lipton,

2013; Malamed, 2009), so people have a sufficient cognitive basis and cognitive advantages via visual language (Blackwell et al., 2001; Green and Petre, 1996). Visual structures employed in visual language include metaphor (Blackwell, 2001), hyperboles (Schilperoord and Maes, 2010), ellipsis (Van Mulken et al., 2014) and so on. As an important auxiliary means for people to understand visual language, metaphor compares two different visual elements, indicating when one object is similar to another one (Jeong, 2008), the “similarity” between two visual elements will be highlighted in the same visual language (Lagerwerf et al., 2012; Phillips and McQuarrie, 2004). Consumers usually carry out the best perceptual organization of different objects with parallel perception according to the similarity law and law of contiguity. Thus, the metaphor or the link of relative concepts between them can be recognized and inferred (Schilperoord et al., 2009). Existing research confirms that presenting MVL can help people construct relevant visual language processing programs in their psyche and mind, understand the meaning conveyed by visual language (Blackwell, 2001), provide people with near-authentic tactile information (Ghosh and Sarkar, 2016), and further influence people's purchase intentions and brand attitudes towards the target product among others (Fenko et al., 2018; Margariti et al., 2019; Myers and Jung, 2019). Therefore, the two visual elements of the MVL defined in this study refer to the product element and the metaphorical element, with the product element being the target product image and the metaphorical element invoking the haptic cues in the text, both of which are metaphorically juxtaposed in the visual language display.

The "placebo" effect indicates that irrelevant or non-diagnostic information will affect consumers' judgment (Brasel and Gips, 2014; Shiv et al., 2005; Abrate et al., 2021). Therefore, attention to haptic cues in MVL can be transferred to target products to a certain extent. Consumers are able to shift this attention to some extent to the target product, evoking a mental simulation of the target product (Herrero et al., 2022), enhancing the perceived tactile attributes of the product (Biswas and Szocs, 2019) and influencing subsequent perceptions of product quality, brand attitudes, and purchase intentions (Yoganathan et al., 2019; Donato and Raimondo, 2021). According to the theory of touch visualization, real haptic perception can be generated when an individual watches the intentional or unintentional touch between living or inanimate objects, thus emerging vicarious touch experience (Keysers et al., 2004; Schirmer and McGlone, 2019). In e-commerce practice, online retailers often rely on MVL by designing relevant haptic cues in the display of the target product, such as a hand touching the product or an object with significant tactile properties, in order to express and convey the tactile properties of the target product visually and concretely. On the basis of the concept of Luangrath et al. (2022), vicarious touch is conceptualized as the touch between the haptic cues in MVL in picture display and the product, so that consumers can have a nearly real tactile experience. In this paper, haptic cues are specifically divided into hand haptic cues and object haptic cues (Ebisch et al., 2008).

Different haptic cues have different effects on consumers' understanding of the nature and strength of online products' tactile attributes, which leads to differences in behavioral intentions. When haptic cues in MVL are objects, through demonstrating haptic properties significantly related objects, consumers can actually feel product haptic properties based on vicarious touch experience and transcendental knowledge get from haptic properties and quality, and promote positive attitude. For example, Lv et al. (2020) and Maille et al. (2020) proved that product images with haptic cues could stimulate the mental simulation and

purchase intention of the subjects through the manipulation of haptic cues such as feathers, brushes or wine glasses than straightforward product displays. From the perspective of consumers' online environment feelings, haptic cues of heavy and soft objects affect both warmth and ability dimensions of online retailers, thus influencing purchase intention (Jha et al., 2019). When the haptic cues is hand, i.e, when showing the image of the target product touched by the hand, with the help of metaphorical rhetorical techniques to simulate the process of exploring the tactile properties of the product by consumers themselves using their hands, this vicarious touch experience makes it a real touch experience. Lederman and Klatzky (1987) showed that the initiative and diagnostic hand exploration process (EPs) can be mapped to the tactile system and extract relevant haptic information. And in the context of observing others' hand touch online, touching products with others' hands leads to increased somosensory activity in brain regions (Basso et al., 2018) and vicarious experiencing (Luangrath et al., 2022). Studies in cognitive psychology and consumer behavior have shown that observing hand haptic cues and product touch could stimulate vicarious touch experience. The process of automatically simulating others' hand touch actions appears psychologically and behaviorally (Liu et al., 2018), even if the subjects rationally judge that the behavior does not come from themselves (Wegner et al., 2004). This vicarious sensory experience also helps to infer its sensory characteristics and obtain sensory information of products (Pino et al., 2020), thereby enhancing purchase and payment intention (Luangrath et al., 2022).

Gkiouzepas and Hogg (2011) proposed conceptual tension to explain the contiguity of metaphorical conceptual links, i.e., the degree of correlation between two metaphorical objects (concepts). When the metaphorical targets displayed in visual language are closely related to each other, the metaphorical degree of conceptual tension may affect their metaphorical quality (McCabe, 1983), i.e, the smaller the conceptual tension between two metaphorical targets (concepts), the more familiar the individual is to the source domain. Therefore, compared to two metaphorical objects with high conceptual tension two metaphorical targets, with less conceptual tension can help individuals perceive metaphorical representation from the whole and enhance their episodic memory of metaphorical pictures (Gurguryan et al., 2021), and the quality of perceived visual metaphors will be better (Pollock, 2020). So compared with haptic cues of objects, haptic cues of hands and products have closer conceptual links and less conceptual tension. This is because that the hand is one of the most sensitive parts of the human body suggested by Penfield touch dwarf theory (Sekuler and Blake, 1994), and it is the haptic "window" for exploring objects (Klatzky et al., 1993). In addition, touching products are very active in nature. Therefore, people are familiar with how to judge and experience tactile properties of products through hand touch (Luangrath et al., 2022). Studies have shown that when people see the virtual hand or real rubber hand touching objects, they begin to feel that the virtual hand (Moseley et al., 2008; Slater et al., 2009) and the rubber hands (Ehrsson, 2020) are their own hands, and "tactile transmission" phenomenon occurs, which reduces consumers' distance with the rubber hand or virtual hand and blurred the boundary with the body, thus promoting vicarious tactile experience. Therefore, people are more familiar with the haptic cues of the hands than with haptic cues about objects. Then the conceptual tension of metaphor containing hand haptic cues is smaller than object haptic cues, and people are more likely to accept and understand these tactile attributes and experience conveyed by this hand haptic cues in MVL. To sum up, the following hypothesis is proposed:



H1: Online products containing haptic cues in MVL, compared with haptic cues of objects, haptic cues of hands can lead to more positive purchase intention.

### **THE MEDIATING EFFECT OF MENTAL SIMULATION**

It is easier to activate rich sensory information stored in working memory through metaphor presentation, such as recently perceived stimulus images, or sensory images possibly extracted from long-term memory (Abaidi et al., 2020). So MVL can convey the richness and vividness of tactile information, and visual language containing rich sensory information are more effective than other stimuli in evoking mental simulation (Lee and Gretzel, 2012; Liu et al., 2019; Lee and Choi, 2021). Embodied simulation neuroscience model indicates that individuals conceptualize observed things based on their own body-related perceptual experiences (Gallese, 2005; Tan, 2020) and create cognitive psychological shortcuts. Therefore, both hand haptic cues and object haptic cues contain abundant tactile information and can represent consumers a priority tactile experience. Forming from the metaphor of structure mapping instead of tactile experience, vicarious tactile experience can help consumers quickly get conceptual cognition of online product tactile properties, thus effectively stimulating mental simulations (Yim et al., 2021; Chen and Lin, 2021).

Mental simulation can be distinguished into two elaboration types: process simulation and outcome simulation (Zhao et al., 2007). Process simulation involves imagining the process, emphasizing the actions necessary to achieve the results, and encouraging the formation of plans through step-by-step stories or narratives. Process simulation can strengthen people's perception of the product and improve planning (Rennie et al., 2014). While outcome simulation involves imagining the results, emphasizing the expected results to achieve the goals (Taylor et al., 1998; Wu et al., 2021). Outcome simulation, can reinforce people's emotional reactions to the product and easily lead to impulsive behavior (Rennie et al., 2014). Process simulation and outcome simulation facilitate the visualization of product adoption decisions (Castaño, 2008), focus on the "how" and "why" modes of thinking, respectively. When the type of mental simulation matches the processing mode, the target or the memory of previously stored information, mental simulation can play the most concrete role (Zhao et al., 2011). Haptic cues in MVL facilitate each of these two mental simulations. Process simulation focuses on the process of enjoying experience. When consumers attach importance to the experience process of products, they tend to touch and explore with their hands. Hand cues in MVL can maximize the stimulation of process simulation (Yim et al., 2021), such as the softness of towels. While outcome simulation focuses on the benefits of tactile experience. When consumers think highly of product outcome information, object cues in MVL can maximize outcome simulation (Xie et al., 2016).

Mental simulation of previous experience struck by external cues can influence consumers' expectations of a product, experience and evaluation (Papies et al., 2017). Persuasive information that evokes stronger imagery, such as information containing multisensory modality, can strongly induce mental simulation, thereby initiating strong product attitudes and behavioral intentions (Bagatini, 2020). So haptic cues in MVL of products can effectively stimulate process simulation and outcome simulation (Xie et al., 2016), and influence preferences, attitudes and behavioral intentions (Chen and Lin, 2021; Chang, 2012; Petit et al., 2017, 2018). Therefore, the following hypothesis is proposed:

H2: Mental simulation plays a mediating role in the influence of haptic cues in MVL of products on consumers' purchase intention. Among them, process simulation mediates hand haptic cues and purchase intention, and outcome simulation mediates object haptic cues and purchase intention.

### **THE MODERATING EFFECT OF PRODUCT TYPE**

Based on the division of product types in existing studies, products are divided into functional products and sensory-social products (Bettiga et al., 2020). Functional products are instrumental and practical, and consumers need to think, analyze and process the attributes of the products, including products with functional purposes (such as electronic products, water cups, etc.) (Zhu and Meyer, 2017), and their potential purchase motivation is the material functional attributes maximization (Daugherty et al., 2008). This kind of product is the most suitable for collecting geometric information such as shape attributes and haptic information such as weight (McCabe and Nowlis, 2003; Jang and Ha, 2021). With sensory-social products, consumers focus on self-expression and sensory pleasure, and usually attach personal emotional factors. When the most important sensory attribute of sensory-social products is touch, it is difficult for consumers to evaluate their haptic attributes before purchase. Such as texture dimension related information, which needs to be verified by real touch exploration (Casasanto, 2009; Milhau et al., 2017; Ranaweera et al., 2021). Therefore, according to the different roles of sensory information such as MVL haptic cues in functional products and sensory-social products, products can be divided into tactile functional products and tactile experiential products (Bettiga et al., 2020; Karangi and Low, 2021). Processing fluency is defined as the ease with which information is processed (Alter and Oppenheimer, 2009). The theory of processing fluency indicates that individuals automatically form self-perception of the difficulty and fluency of processing information (Shapiro, 1999; Murphy et al., 2022), allowing individuals to form self-preference judgments and emotional responses to processed information (Carr et al., 2016), which are primarily related to people's mental conceptual fluency and perceptual fluency (Dreisbach and Fischer, 2011; Lee and Labroo, 2004). When people develop higher mental fluency and perceptual fluency for processed information, it is beneficial for people to select, evaluate, and make corresponding purchases of processed information (Novemsky et al., 2007; Winkielman et al., 2003; Alter and Oppenheimer, 2006). When the MVL information is consistent with the relevant attributes of the product, the processing fluency of consumers will be improved and they can quickly process the corresponding sensory information (Chen and Lin, 2021), which can influence subsequent behavior. Therefore, tactile functional products highlight instrumental tactile information through tactile interaction between objects haptic cues in MVL and tactile functional products, so that consumers can quickly identify tactile attributes, extract tactile information, produce outcome simulation and promote their purchase intention without realizing it. For tactile experiential products, tactile information is collected through hand touch exploration (Bergmann Tiest et al., 2012). And familiarity is enhanced (Yim and Yoo, 2020). Tactile vicarious experience is provided to reduce perceptual risks and enhance pleasant shopping experience (Cano et al., 2017). Thus the interaction between hand haptic cues and tactile experiential products can meet the demand of touching products, which is in favor of generating process simulation and promoting purchase intention. In conclusion, the following hypothesis is proposed:

H3: Product type plays a moderating role in the influence of haptic cues in MVL on consumers' purchase intention. Among them, tactile experiential (tactile functional) product display using hand (object) haptic cues will lead to positive purchase intention.

The theoretical model of this paper is shown in Figure 1.

-----  
Insert Figure 1 about here  
-----

## **METHODOLOGY**

### **STUDY 1: ONLINE SHOPPING PLATFORM REAL DATA ANALYSIS**

#### **PRE-STUDY**

Before starting the experiment, all the products needed for the experiment should be determined. In the first step, subjects were asked to evaluate product attributes considered when purchasing the product, and score the importance of tactile and visual information in product evaluation and decision making. Combining the product categories used in the previous studies, 30 products sold online were selected firstly. Referring to the experimental procedure of Balaji et al. (2011) on the pre-test of product types, 40 undergraduates from a university in China were invited. It was assumed that the importance of tactile information (TI) and visual information (VI) was rated from extremely unimportant (1) to extremely important (5) according to the Likert 5-point scale in the decision of purchasing these products. Statistical results showed that 12 kinds of products were tactile diagnostic products, including pyjamas (N=40, TI=4.90, VI=3.85,  $p<0.001$ ), dumbbells (N=40, TI=4.48, VI=2.80,  $p<0.001$ ), blankets (N=40, TI=4.90, VI=4.10,  $p<0.001$ ), gloves (N=40, TI=4.85, VI=3.80,  $p<0.001$ ), pinch meter (N=40, TI=4.48, VI=2.50,  $p<0.001$ ), scarf (N=40, TI=4.78, VI=4.50,  $p=0.020$ ).

In the second step, tactile diagnostic products were further divided into tactile functional products and tactile experiential products. Fifty undergraduates from a university in China were invited to measure whether they pay attention to tactile functional information (TFI) or tactile experiential information (TEI) when purchasing 12 tactile diagnostic products using Likert 5-point scale. Statistical results showed that blanket (N=50, TFI=4.04, TEI=4.50,  $p=0.021$ ), pyjamas (N=50, TFI=3.82, TEI=4.38,  $p=0.010$ ), and scarf (N=50, TFI=3.90, TEI=4.42,  $p=0.013$ ) were tactile experiential products, dumbbells (N=50, TFI=4.28, TEI=3.66,  $p=0.007$ ) and pinch meter (N=50, TFI=4.42, TEI=3.90,  $p=0.010$ ) were tactile functional products, gloves (N=50, TFI=4.26, TEI=4.06,  $p=0.274$ ) were hybrid products.

Therefore, gloves, scarves and pinch meter were selected as the products for secondary data collection in Study 1. Blankets were selected as the experimental products in Study 2, and pyjamas and dumbbells were selected as the experimental products in Study 3.

#### **FORMAL EXPERIMENT**

To test the relationship between consumers' haptic cues when shopping and their purchasing behavior in online retail, this study selected gloves (tactile functional and tactile experiential mixed product), scarf (tactile experiential product) and pinch meter (tactile experiential product). Nearly 13,000 online purchase data were intercepted from the Taobao platform to inquiry whether the lack of haptic sense can be compensated by the touch between haptic cues and the product, under the premise of controlling other conditions.

### **(1) Data Collection**

"Gloves/scarves/pinch meter" were entered into the search bar of the Taobao platform, and 4630 gloves, 4567 scarves, and 4535 pinch meter were available. In order to control the influence of other variables on sales as much as possible and verify the influence of haptic cues on sales, this study chose the cover display pictures in the shopping page. The purchase page presented information such as price, product description, picture, store name, etc. Therefore, except the influence of haptic cues, the price and the number of online reviews were also included in the study.

### **(2) Coding**

The criteria for pictures with or without haptic cues were determined. For example, for gloves, the use of models' hands to display gloves or placing cotton and other objects beside them was considered as having haptic cues; otherwise, there were no haptic cues (0= no haptic cues, 1= have haptic cues). Scarves and pinch meter were coded in the same way.

### **(3) Results**

Taking the logarithm of the price in the product picture and the number of online reviews into the model to eliminate the influence of different dimensions of each variable:

$$\ln(\text{Quantity})=C+\beta_1\cdot\ln(\text{Price})+\beta_2\cdot\ln(\text{Comments})+\beta_3\cdot\text{Cues}+\varepsilon$$

$\varepsilon$  is random error term, C is constant, Quantity is product sales volume, Price is product price, Comments is online comment, Cues is haptic cues.

Linear regression was performed on the above variables, results of these three products will be shown in the following tables (Table 1-Table 3). Taking glove (hybrid product) as an example, three variables had a significant impact on sales ( $R^2=0.757$ ,  $F(3,4627)=4816.900$ ,  $p=0.000$ ). Specifically, the glove pictures with haptic cues had a positive correlation and significant impact on its sales ( $B=0.407$ ,  $t(4628)=8.143$ ,  $p=0.000$ ). i.e, compared with no haptic cues, the glove pictures with haptic cues had higher sales. In addition, the glove price had a negative correlation and significant impact on the sales volume ( $B=-0.191$ ,  $t(4628)=-9.367$ ,  $p=0.000$ ). The higher the glove price, the lower the sales volume. The number of online reviews of gloves had a positive correlation with the sales volume ( $B=0.960$ ,  $t(4628)=114.871$ ,  $p=0.000$ ). The more online reviews accumulated, the higher the sales volume. The Same analysis was used for both scarf and pinch meter.

-----  
Insert Table 1-3 about here  
-----

### **(4) Discussion**

Secondary data study showed that haptic cues in product pictures had a significant impact on consumer purchasing behavior. Products were sold more when product pictures included haptic cues. Otherwise, it led to lower sales. This was partly because that haptic cues in the pictures helped consumers to simulate the products to some extent when they bought products. However, Study 1 did not distinguish and classify haptic cues, so in the following experiments, this paper further distinguishes different types of haptic cues and verify the influence of haptic cues on purchase intention.

## **STUDY 2: MAIN AND MEDIATING EFFECT TEST**

### **PRE-STUDY**

First of all, picture designed in the experiment was as close as possible to the pictures displayed in the real online mall. Visual elements such as size, color, theme and description of product pictures of different haptic cues types were consistent to reduce the confusion of other visual factors. Among them, the resolution of the product pictures was 825\*1492, and the opacity was 100%. The only difference between pictures of each group was the haptic cue included. Three groups of experimental stimulus materials were designed to display different haptic cue, namely hand haptic cue, object haptic cue and non-haptic cue. Among them, hand haptic cue was that a model's hand was touching the product. Object haptic cue was that an object with highly significant tactile attributes was touching product to highlight tactile attributes. The display without haptic cue was a separate product display and it was designed as the control group.

Referring to the pre-test of process simulation and outcome simulation of Xie et al. (2016), subjects were determined that they were capable of process and outcome simulation of the product. Referring to the mental simulation scale developed by Xie et al. (2016), a Likert 7-point scale of "not at all" (1) and "to a great extent" (7) was used. In the experiment, subjects were asked to watch product pictures (hand haptic cue vs. object haptic cue vs. control group: no haptic cue), and reported their ability to simulate the process of using the product and the degree of simulated enjoyment after using the product (such as simulating the touch of the product, feeling its weight, texture softness). At the same time, with reference to metaphor control, a Likert 7-point scale of "not at all important" (1) and "extremely important" (7) was used to ask subjects to report whether the product description they viewed were "straightforward and factual" or "figurative and abstract".

A total of 117 undergraduates from a university in China were randomly assigned to the above three experimental groups. An analysis of variance (ANOVA) revealed a significant effect on mental simulation ( $F(2, 114)=14.175, p<0.001, \eta^2=0.199$ ), with hand haptic cue ( $M_{\text{hand}}=5.73, SD=0.77$ ) significantly increasing mental simulation relative to the object haptic cue ( $M_{\text{object}}=5.14, SD=0.84, p=0.007$ ) and no cue ( $M_{\text{control}}=4.58, SD=1.18, p<0.001$ ). These results indicated that the subjects could perform a greater degree of mental simulation on the hand haptic cue. There was less conceptual tension in hand haptic cue and subjects were suitable and capable to complete the related cognitive tasks that requiring the initiation of mental simulation.

An analysis of variance (ANOVA) revealed a significant effect on metaphor control ( $F(2, 114)=47.343, p<0.001, \eta^2=0.454$ ), with hand haptic cue ( $M_{\text{hand}}=4.74,$

SD=0.93) significantly increasing metaphor control relative to the object haptic cue ( $M_{\text{object}}=4.20$ ,  $SD=1.11$ ,  $p=0.015$ ) and no cue ( $M_{\text{control}}=2.74$ ,  $SD=0.75$ ,  $p<0.001$ ). These results indicated that subjects perceived a higher degree of metaphor in hand haptic cue group. There was less conceptual tension in hand haptic cue group and the manipulation of metaphorical picture design in the experimental stimulus material was successful in this study.

## FORMAL EXPERIMENT

### (1) Experimental Design and Process

The purpose of Study 2 was to explore the potential and mechanism of haptic cue in achieving tactile compensation in online product presentations. The formal experiment was designed as a single factor experiment between subjects. The display of haptic cue included: hand haptic cue vs. object haptic cue vs. control group: no haptic cue, and the experimental product was a blanket (tactile experiential product). Using G\*power software, it was calculated that at a significance level of 0.05 and a moderate effect size ( $f=0.25$ ), the total sample size predicted to reach a statistical power level of 80% was at least 159. So the planned sample size was 190. Due to epidemic and subject time conflicts, finally, 165 undergraduates from a university in China were invited and randomly divided into three groups (56, 54, and 56, respectively, including 90 females). All subjects were aged 18-25 and had online shopping experience.

According to the experimental design of Van Mulken et al. (2014), three experimental situations were designed and a virtual product named "MOCI" was introduced. The product display page was forced to be exposed for 20 seconds to simulate the online shopping environment. Only after the retention time were subjects allowed to open the next page and fill in the subsequent test objects. Subjects were introduced to a simulated online shopping situation, where they were all asked to imagine themselves shopping online. After browsing the product display page, they were required to fill in the process simulation scale ( $\alpha=0.853$ ), outcome simulation scale ( $\alpha=0.881$ ) (adapted from Elder and Krishna (2012) and Xie et al. (2016)), purchase intention scale ( $\alpha=0.863$ ) and other research scales as well as fill in relevant demographic variables.

### (2) Results

**Manipulation test.** ANOVA results showed there were significant differences in the degree of metaphorical expression among three groups ( $F(2, 163)=84.237$ ,  $p<0.001$ ,  $\eta^2=0.508$ ). There were significant differences in the degree of metaphorical control between hand haptic cue ( $M_{\text{hand}}=4.71$ ,  $SD=0.75$ ) and object haptic cue ( $M_{\text{object}}=4.38$ ,  $SD=0.78$ ,  $p=0.023$ ), and with the control group ( $M_{\text{control}}=2.96$ ,  $SD=0.74$ ,  $p<0.001$ ). This indicated successful manipulation of haptic cues.

**Main effect test.** ANOVA results showed that haptic cues display had a significant effect on consumer's purchase intention ( $F(2, 163)=21.476$ ,  $p<0.001$ ,  $\eta^2=0.209$ ). Participants had a higher level of purchase intention for product with hand haptic cue ( $M_{\text{hand}}=4.98$ ,  $SD=0.80$ ) relative to the object haptic cue ( $M_{\text{object}}=4.24$ ,  $SD=0.85$ ,  $p<0.001$ ), and no cue ( $M_{\text{control}}=3.78$ ,  $SD=1.23$ ,  $p<0.001$ ). Further post hoc tests yielded significant differences

between all three groups (all  $p < 0.05$ ). These effects are not qualified by age ( $p = 0.470$ ) or gender ( $p = 0.673$ ). So H1 was verified.

**Mediating effect test.** According to the mediating effect analysis procedure proposed by Zhao et al. (2010), Bootstrap methods proposed by Preacher et al. (2007) and Hayes (2013) were applied to examine the mediating effects. Mediation analysis model 4 was selected, and the sample size was 5000. The sampling method was the non-parametric percentile method with selection bias correction under 95% confidence intervals. Purchase intention was the dependent variable, haptic cues were the independent variable, and process simulation and outcome simulation were the dual mediating variables. The independent variable of haptic cues was multiple categorical variables, so it was re-coded. Two dummy variables X1 and X2 were added with the control group as the benchmark X1 (control vs. hand) and X2 (control vs. object) were defined as independent variables. Results showed that process simulation had a mediating effect ( $\beta = -0.3379$ ,  $SE = 0.1044$ ,  $CI = [-0.5580, -0.1475]$ ), with X1 (hand vs. control) the independent variable, process simulation the mediating variable, and purchase intention the dependent variable. The specific results are shown in Figure 2.

-----  
Insert Figure 2 about here  
-----

**Exclusion of other explanations.** In conducting the above mediation test, it was also tested whether the process simulation and the outcome simulation could play a mediating role when the independent variable was X2 and whether the outcome simulation could play a mediating role when the independent variable was X1. When X2 (object vs. control) was the independent variable, process simulation was the mediating variable, and purchase intention was the dependent variable, process simulation had no significant mediating effect ( $\beta = -0.1583$ ,  $SE = 0.0959$ ,  $CI = [-0.3570, 0.0122]$ ). And when X2 (object vs. control) was the independent variable, outcome simulation was the mediating variable, and purchase intention was the dependent variable, outcome simulation had no significant mediating effect ( $\beta = -0.2004$ ,  $SE = 0.1551$ ,  $CI = [-0.5229, 0.0854]$ ). Taking X1 (hand vs. control) as the independent variable, outcome simulation as the mediating variable, and purchase intention as the dependent variable, it was found that there was no significant mediating effect of outcome simulation ( $\beta = -0.1113$ ,  $SE = 0.0642$ ,  $CI = [-0.2472, 0.0081]$ ).

### (3) Discussion

The results of the study's second main effect support H1 that MVL representations of haptic cues positively influence consumers' purchase intentions. Specifically, the presentation of haptic hand cues elicited more positive purchase intentions compared to object haptic cues and no haptic cues. The new contribution of our study compared to (Lv et al., 2020; Maille et al., 2020) is that it focuses on the design of haptic cues and extends on the metaphorical structure of visual language from mental simulation theory, confirming that not only the presence of object haptic cues can play a tactile compensatory role, but also hand haptic cues can be used as a haptic cue to achieve tactile compensation and enhanced purchase intention.

Mediating effect analysis of Study 2 showed that, even when consumer was buying online and couldn't have direct experience of the sense of touch, haptic cues could enhance the degree of consumer mental simulation. Specifically, process simulation mediated hand haptic cue and purchase intention, and results of outcome simulation' mediating effect had

not been confirmed, leading to H2 partly verified. This study believed that the reason for H2 partly verified may be that consumers tend to feel and enjoy the soft and warm blanket by hand, but outcome simulation cannot mediate this process. Therefore, there might be a boundary mechanism leading to this result. If there is a boundary mechanism, can the conclusion in H1 that hand haptic cues can induce more positive purchase intention than object haptic cues be proved again? Therefore, on the basis of Study 2, Study 3 further expands the experimental validity, expand the offline experiment to each online group of subjects, and explore the influence of its boundary mechanism.

### **STUDY 3: MODERATING EFFECT TEST**

#### **PRE-STUDY**

According to the pre-experiment of product type, the coral-wool pajama was determined as tactile experiential products, and the dumbbell was determined as tactile functional products.

Similar to the experimental design of Study 2, to ensure that experimental pictures of two products were consistent with other factors except haptic cues, a single-factor inter-group design was adopted. All subjects were divided into hand haptic cue group and object haptic cue group. For the experimental products of coral velvet pajamas, 90 questionnaires were distributed through Credamo platform, and 83 valid questionnaires were randomly divided into 2 experimental groups. Results of ANOVA showed that the degree of metaphor control of hand haptic cue ( $M_{hand} = 4.17$ ,  $SD = 0.79$ ) was significantly higher than that of object haptic cue ( $M_{object} = 3.87$ ,  $SD = 0.56$ ;  $F(1, 81) = 4.426$ ,  $p = 0.039$ ). Similarly, for dumbbell, 90 questionnaires were distributed through Credamo platform, and 84 valid questionnaires were randomly divided into 2 experimental groups. Results of ANOVA showed that the degree of metaphorical perception of object haptic cue ( $M_{object} = 4.21$ ,  $SD = 0.71$ ) was significantly higher than that of hand haptic cue ( $M_{hand} = 3.86$ ,  $SD = 0.63$ ;  $F(1, 82) = 5.679$ ,  $p = 0.019$ ). It indicated that the metaphorical control of two groups was successfully manipulated and expressed.

Participants who completed the metaphorical control pre-experiment continued to participate in the mental simulation pre-experiment. For the experimental products of pyjamas, results of ANOVA showed that the degree of mental simulation of the hand haptic cue ( $M_{hand} = 5.58$ ,  $SD = 0.77$ ) was significantly higher than that of the object haptic cue ( $M_{object} = 5.32$ ,  $SD = 0.89$ ;  $F(1, 81) = 8.496$ ,  $p = 0.005$ ); For dumbbell, the degree of mental simulation of the object haptic cue ( $M_{object} = 5.42$ ,  $SD = 0.66$ ) was significantly higher than that of the hand haptic cue ( $M_{hand} = 4.88$ ,  $SD = 1.32$ ;  $F(1, 82) = 5.530$ ,  $p = 0.021$ ). These results indicated that the participants had less conceptual tension between pyjamas (dumbbell) and hand haptic cue (object haptic cue) and were able to complete related cognitive tasks requiring mental simulation.

#### **FORMAL EXPERIMENT**

##### **(1) Experimental Design and Process**



Study 3 was a two-factor group design: 2 (haptic cue: hand vs. object)  $\times$  2 (product type: tactile functional product: dumbbell vs. tactile experiential product: pyjamas). The experimental process of Study 3 was similar to Study 2. A virtual brand named "MOCI" was introduced. After glancing over the product display page, participants filled in the process simulation ( $\alpha=0.897$ ), outcome simulation ( $\alpha=0.902$ ), purchase intention ( $\alpha=0.927$ ) scales and demographic variables. Using G\*power software, it was calculated that at a significance level of 0.05 and a moderate effect size ( $f=0.25$ ), the total sample size predicted to reach a statistical power level of 90% was at least 171. So 220 questionnaire was distributed through Credamo platform, , and 198 valid questionnaires were recovered (101 females and 97 males, with an average age of 28 years), 92% of the subjects had more than 3 years of online shopping experience. All the subjects were randomly assigned to 4 experimental groups (50, 50, 50 and 48, respectively).

## (2) Results

**Test of metaphorical control manipulation.** In the coral-wool pajamas group, ANOVA results showed that metaphorical perception degree of hand haptic cue ( $M_{\text{hand}}=4.09$ ,  $SD=0.72$ ) was significantly higher than that of object haptic cue ( $M_{\text{object}}=3.74$ ,  $SD=0.67$ ;  $F(1,98)=6.212$ ,  $p=0.014$ ). In the dumbbell group, ANOVA results showed that metaphorical perception degree of object haptic cue ( $M_{\text{object}}=3.66$ ,  $SD=0.69$ ) was significantly higher than that of hand haptic cue ( $M_{\text{hand}}=3.41$ ,  $SD=0.50$ ;  $F(1,96)=4.369$ ,  $p=0.039$ ), indicating successful metaphorical manipulation of the two groups.

**Main effect test.** The purchase intention was used as the dependent variable to test whether there were interaction effects between haptic cues and product types. ANOVA results showed that the interaction effect between product types and haptic cues was significant ( $F=26.384$ ,  $p<0.001$ ,  $\eta^2=0.120$ ), the main effect of product types was significant ( $F=17.077$ ,  $p<0.001$ ,  $\eta^2=0.081$ ), and the main effect of haptic cues was also significant ( $F=4.707$ ,  $p=0.031$ ,  $\eta^2=0.024$ ). A simple effect test further found that when products were tactile experiential products, the main effect of haptic cue was significant, and hand haptic cue ( $M_{\text{hand}}=5.32$ ,  $SD=1.03$ ) got higher purchase intention than object haptic cue ( $M_{\text{object}}=4.32$ ,  $SD=0.83$ ;  $F(1,98)=28.949$ ,  $p<0.001$ ). When products were tactile functional products, the main effect of haptic cue was significant, and haptic cue of object ( $M_{\text{object}}=4.45$ ,  $SD=1.06$ ) caused higher purchase intention than haptic cue of hand ( $M_{\text{hand}}=4.05$ ,  $SD=0.94$ ;  $F(1,96)=4.072$ ,  $p=0.046$ ), which is shown in Figure 3. These effects are not qualified by age ( $p=0.087$ ) or gender ( $p=0.190$ ).

-----  
 Insert Figure 3 about here  
 -----

**Mediating effect test.** Process simulation was used as the dependent variable to test whether there were interaction effects between haptic cues and product types. ANOVA results showed that the interaction effect between product types and haptic cues was significant ( $F=3.925$ ,  $p=0.049$ ,  $\eta^2=0.020$ ), and the main effect of product type was significant ( $F=23.191$ ,  $p<0.001$ ,  $\eta^2=0.107$ ), that is to say, tactile experiential products ( $M_{\text{experiential}}=5.17$ ,  $SD=0.95$ ) caused more process simulation than tactile functional products ( $M_{\text{functional}}=4.50$ ,  $SD=1.06$ ;  $F(1,196)=21.964$ ,  $p<0.001$ ). The main effect of haptic cues was also significant ( $F=8.175$ ,  $p=0.005$ ,  $\eta^2=0.040$ ). So hand haptic cue ( $M_{\text{hand}}=5.03$ ,  $SD=1.10$ ) caused more process simulation than object haptic cue ( $M_{\text{object}}=4.64$ ,  $SD=1.00$ ;  $F(1,196)=7.096$ ,

$p=0.008$ ). In order to test the mediating effect of process simulation, this study drawn upon the mediation analysis procedure proposed by Zhao et al. (2010) and the adjusted mediation analysis model 8 proposed by Preacher et al. (2007) and Hayes (2013) to conduct the Bootstrap mediation variable test. The sample size was set to 5000, and under the 95% confidence interval, process simulation did mediate the interaction between haptic cues and product types on purchase intention. The mean value of interaction effect size was 0.1573, and the confidence interval of Bootstrap test was [0.0035, 0.3215], excluding 0, indicating the existence of moderated mediation effect. To be specific, when the product was tactile experiential product, the mean value of the indirect effect size was 0.1922, and the confidence interval of the Bootstrap test was [0.0675, 0.3382], excluding 0, indicating that the indirect effect was significant. These results showed that when browsing tactile experiential product, the mediating effect of process simulation existed, as shown in Figure 4.

-----  
 Insert Figure 4 about here  
 -----

Similarly, the outcome simulation was tested again as the dependent variable. ANOVA results showed that the interaction effect between product types and haptic cues was significant ( $F=4.435, p=0.036, \eta^2=0.022$ ), and the main effect of product types was significant ( $F=5.291, p=0.022, \eta^2=0.027$ ). Tactile functional products ( $M_{\text{function}}=5.08, SD=1.04$ ) caused higher outcome simulation than tactile experiential products ( $M_{\text{experiential}}=4.73, SD=1.22; F(1,196)=4.880, p=0.028$ ). The main effect of haptic cues was significant ( $F=5.799, p=0.017, \eta^2=0.029$ ). Object haptic cue ( $M_{\text{hand}}=4.72, SD=1.19$ ) generated higher outcome simulation than hand haptic cue ( $M_{\text{object}}=5.09, SD=1.06; F(1,196)=5.377, p=0.021$ ). Similarly, test the mediating effect of outcome simulation, outcome simulation did mediate the interaction between haptic cues and product types on purchase intention. The mean value of interaction effect size was 0.1230, and the confidence interval of Bootstrap test was [0.0053, 0.2961], excluding 0, indicating the existence of moderated mediating effect. Specifically, when the product was tactile functional product, The mean value of the indirect effect size was -0.1318, and the confidence intervals of the Bootstrap test were [-0.2602, -0.0332], respectively. This interval did not include 0, indicating that the indirect effect was significant. These results suggested that when browsing tactile functional product, the mediating effect of outcome simulation existed, as shown in Figure 4.

**Ruling out other explanations.** In this study, the moderated mediation test was conducted, and other conditions were also tested for the absence of mediation. For tactile functional product, the mean indirect effect of process simulation was 0.0349, and the confidence interval of Bootstrap test was [-0.0845, 0.1847], including 0. For tactile experiential product, the mean value of simulated indirect effect of outcome simulation was -0.0088, and the confidence interval of Bootstrap test was [-0.1009, 0.8980], including 0.

### (3) Discussion

Study 3 aimed to explore the boundary mechanism of the influence of haptic cues in MVL on mental simulation and purchase intention. Results of Study 3 supported H3 and H2, and answered the applicable boundary conditions for H1 discussed in Study 2. The vicarious touch effect produced by haptic cues in MVL has the effect of boundary mechanisms, and not all types of products achieve optimal results using hand haptic cues, which is consistent with

our main point. Also this result fills the previous study, where Luangrath et al. (2022) chose clothing as the product type and did not explore the product type in depth. Therefore, the results of our Study 3 can be used as a complement. That is, for haptic experiential products, designing hand haptic cues can achieve the best results. For haptic functional products, on the other hand, they should be designed with object haptic cues rather than hand haptic cues.

## **FINDINGS AND DISCUSSION**

### **CONCLUSION**

Based on one secondary data study and two scenario simulation experiments, this paper drew the following conclusions: First, haptic cues in MVL could promote consumers' purchase intention of tactile salient attributes products, and process simulation and outcome simulation played different mediating roles. Specifically, compared with the use of object haptic cues and non-haptic cues, the use of hand haptic cues in product display could produce a higher degree of process simulation and improve the purchase intention. However, when object haptic cues were displayed, consumers would get a higher degree of outcome simulation, then their purchase intention were improved. Second, the influence of haptic cues in MVL on consumers' purchase intention and mental simulation had a boundary mechanism, and product types played a moderating role in it. Specifically, only the display of hand haptic cues with tactile experiential product could enhance consumers' purchase intention, and process simulation played a mediating role. For tactile functional product, only when displaying object haptic cues could outcome simulation play the role of mediation, so as to promote consumers' purchase intention.

### **THEORETICAL CONTRIBUTIONS**

Firstly, there was little literature examining the tactile compensation effect in terms of haptic cues in MVL. This paper combined the visual structure of metaphors in visual language with conceptual tension as a criterion for judging MVL to investigate consumer online tactile compensation. Based on visual language, this study proved the idea of Luangrath et al. (2022) and Yim et al. (2021) that observing another person's hand touch also promotes tactile perception as well as product attitudes at the first step. From a metaphorical rubric conceptual tension perspective, this paper complemented Gkiouzepas and Hogg (2011)'s work that the conceptual tension of haptic cues had a positive impact on consumers' attitudes, thus compensating for consumers' missing tactile sensations. So no matter from the point of conceptual tension or haptic cues in MVL, the suggestion of haptic cues in MVL was helpful to shorten the distance between consumers and products. It linked consumers and products from visual and tactile sensory dimensions to achieve the effect of communication between the two.

Secondly, consumers in the Internet context tend to obtain reliable information by observing others' experience and sensing sensory attributes (O' Donnell and Evers, 2019). At this time, the concept of touch visualization comes into being. While researches on touch visualization were still in the stage of physiological research (Sathian, 2016), and there was a lack of empirical researches in the field of marketing. This paper differs from previous

studies on the physiological stages of touch visualization by applying touch visualization theory to marketing field research. It investigated the role of touch visualization from the perspective of haptic cues in MVL, showing that adding haptic cues to MVL can significantly improve consumers' tactile perception of products, thus compensating for consumers' missing tactile sensation, promoting purchase intention, and enriching the research on touch visualization in marketing field.

Finally, this paper focused on other pre-influencing factors that could stimulate mental simulation, such as haptic cues. Different from previous studies generally showing that clear and vivid product descriptions accompany this degree of mental stimulation (Yim et al., 2018; Yoon et al., 2021), and enhancing the construction of mental simulation and generated positive product evaluation (Yim et al., 2018), this paper indicated that haptic cues in MVL, as an antecedent factor, could help consumers construct different types of mental simulations according to different types of products. This result fit consumers' processing motives for products and could generate positive cognition and behavior. This is because different haptic cues are highly related to consumers' motivation, and metaphors can narrow the conceptual tension among consumers, products and haptic cues, thus increasing the familiarity and association among them.

### **MANAGERIAL IMPLICATIONS**

Firstly, facing the complex situation, marketers should have a comprehensive consideration from multi-factors, such as consumers' psychological cognition, product type, medium characteristics, and many other factors. They need to choose from different visual tools to optimize communication effect. This paper designed haptic cues to change the consumers' attitude towards online products with the help of visual language tools in order to compensate for the lack of tactile sensation of online consumers.

Secondly, this study is helpful for online retailers to pay attention to the role of consumer mental simulation on haptic salient attribute product perception, and select or adjust marketing strategies and means accordingly. Previously, when online retailers promoted products, most of them paid attention to whether the product price was reasonable. However, the important haptic attribute of the product itself was ignored by retailers, which was also one of the reasons for the high return rate of online products. It was found in this paper that consumers could produce different types of mental simulation for haptic salient attribute products, enlightening marketers that when the products sold are haptic salient attribute products, how to maximize consumers' mental simulation of the products to enable consumers to achieve a shift in channel behavior (Li et al., 2021; Li et al., 2021) is the right marketing idea. For example, for tactile experiential products like blankets, hand haptic cues can enhance consumers' mental simulation of the use of blankets, so consumers can perceive the softness and warmth of blankets in advance, and their favorable degree of products will be improved, so as to achieve better marketing effects.

Finally, this study also suggests that online retailers should seize the market segments of haptic salient attribute products and utilize haptic cues to improve the market acceptance of different products. In the past, when retailers carried out online sales, they often targeted at large market segments and paid little attention to the market segments of haptic salient

attribute products. As a result, they only grasped marketing data, but the corresponding marketing strategy and strategy principle were not clear. The results of this paper showed that different types of haptic cues should be set for products with different types of tactile salient attributes. Such as for blankets, pyjamas and other tactile experiential products, consumers are more likely to imagine using their hands to touch the texture of products to make evaluation. Therefore, it is more reasonable to set hand haptic cues for tactile experiential products. Similarly, for tactile functional products such as dumbbells, haptic object cues should be set to cater to haptic attributes such as weight, so as to improve shopping satisfaction.

### **LIMITATIONS AND FUTURE DIRECTION**

First of all, although the valuation of products tended to increase when consumers touch products offline, it tended to decrease when others touch products through pollution effects (Argo et al., 2006). However, the pollution effect would lead to the weakening, blurring and even distortion of consumers' mental images in their minds, thus reducing the usefulness of their mental simulation (Baumgartner et al., 1992). Whether vicarious touch in an online environment also has pollution effects reducing the usefulness of mental simulations is a topic worth exploring. In addition to addressing the topic of adding haptic cues to achieve vicariously touch, Luangrath et al. (2022) showed that future studies could exaggerate the alternative touch effect of hand haptic cue (Schirmer and McGlone, 2019). Two haptic cue types considered in this paper, could future research further exaggerate the vividness of object haptic cues as well? Could object haptic cues be designed as living rabbits to present the softness of pyjamas?

Secondly, the information collected by consumers could be attributed to the information presented in the stimulus (Miller, 1994), and the high load of product information description would also affect the mental simulation and thus affecting the judgment (Chen and Lin, 2021). This paper used a haptic cue to explore their positive impact on consumers. And when presented information overload or haptic cues were too complex to exceed the capacity of their transmission channels, this raises the possibility of target confusion (Gomes et al., 2020). Therefore, it is necessary for future research to study the load boundary of haptic cues, and further explore what type or quantity of haptic cues can play the most positive role under certain boundary conditions, while it will produce negative effects when exceeding this boundary.

Thirdly, due to the limited sensory experience and expression skills, the experimental materials and design in this paper cannot fully meet the requirements of the expected research effect. In addition to viewing haptic cues, the generation of consumer mental simulation may also include the influence of other factors, such as touch devices used by consumers, virtual substitutes, auditory and haptic interaction and other factors. Future research can further explore whether haptic cues and mental simulation also have positive effects based on interactive devices, or explore the influence of factors other than haptic attributes of products on consumers' haptic perception.

Fourthly, this paper mainly adopted the research method of simulated experiment with certain limitations. It can be considered to further carry out real field experiments to enhance the validity of external research.

## REFERENCES

- Abaidi, I., Agrebi, S., Ben Nasr, I., & Cottet, P. (2020). Mental imagery: A lever for valuing an intangible offer. *Recherche et Applications en Marketing (English Edition)*, 35(3), 79-101.
- Abrate, G., Quinton, S., & Pera, R. (2021). The relationship between price paid and hotel review ratings: expectancy-disconfirmation or placebo effect?. *Tourism Management*, 85, 104314.
- Alter, A. L., & Oppenheimer, D. M. (2006). Predicting short-term stock fluctuations by using processing fluency. *Proceedings of the National Academy of Sciences*, 103(24), 9369-9372.
- Alter, A. L., & Oppenheimer, D. M. (2009). Uniting the tribes of fluency to form a metacognitive nation. *Personality and Social Psychology Review*, 13(3), 219-235.
- Argo, J. J., Dahl, D. W., & Morales, A. C. (2006). Consumer contamination: How consumers react to products touched by others. *Journal of Marketing*, 70(2), 81-94.
- Bagatini, F. Z. (2020). *Can you imagine yourself using this product? Exploring embodied mental simulation through product pictures in e-commerce.*
- Balaji, M. S., Raghavan, S., & Jha, S. (2011). Role of tactile and visual inputs in product evaluation: a multisensory perspective. *Asia Pacific Journal of Marketing and Logistics*.
- Basso, F., Petit, O., & Le Bellu, S. (2018). Taste at first (person) sight: Visual perspective modulates brain activity implicitly associated with viewing unhealthy but not healthy foods. *Appetite*, 128: 242-254.
- Baumgartner, H., Sujan, M., & Bettman, J. R. (1992). Autobiographical memories, affect, and consumer information processing. *Journal of Consumer Psychology*, 1(1): 53-82.
- Bearden, W. O., Lichtenstein, D. R., & Teel, J. E. (1984). Comparison price, coupon, and brand effects on consumer reactions to retail newspaper advertisements. *Journal of Retailing*, 60, 11-34.
- Bergmann Tiest, W. M., Kahrimanovic, M., & Niemantsverdriet, I. (2012). Salient material properties and haptic volume perception: the influences of surface texture, thermal conductivity, and compliance. *Attention, Perception, & Psychophysics*, 74(8): 1810-1818.
- Bettiga, D., Bianchi, A. M., Lamberti, L., & Noci, G. (2020). Consumers emotional responses to functional and experiential products: a neuroscience research. *Frontiers in Psychology*, 11, 559779.
- Biocca, F., Kim, J., & Choi, Y. (2001). Visual touch in virtual environments: An exploratory study of presence, multimodal interfaces, and cross-modal sensory illusions. *Presence: Teleoperators & Virtual Environments*, 10(3), 247-265.
- Biswas, D., & Szocs, C. (2019). The smell of healthy choices: Cross-modal sensory compensation effects of ambient scent on food purchases. *Journal of Marketing Research*, 56(1), 123-141.
- Blackwell, A. F. (1996, September). Metacognitive theories of visual programming: what do we think we are doing?. In *Proceedings 1996 IEEE symposium on visual languages* (pp. 240-246). IEEE.
- Blackwell, A. F. (2001). Pictorial representation and metaphor in visual language design. *Journal of Visual Languages & Computing*, 12(3), 223-252.
- Blackwell, A. F., Whitley, K. N., Good, J., & Petre, M. (2001). Cognitive factors in programming with diagrams. *Artificial Intelligence Review*, 15(1), 95-114.

- Bone, P. F., & Ellen, P. S. (1992). The Generation and Consequences of Communication-Evoked Imagery. *Journal of Consumer Research*, 19(1): 93-104.
- Brasel, S. A., & Gips, J. (2014). Tablets, touchscreens, and touchpads: How varying touch interfaces trigger psychological ownership and endowment. *Journal of Consumer Psychology*, 24(2), 226-233.
- Cano, M. B., Perry, P., Ashman, R., & Waite, K. (2017). The influence of image interactivity upon user engagement when using mobile touch screens. *Computers in Human Behavior*, 77, 406-412.
- Carr, E. W., Rotteveel, M., & Winkielman, P. (2016). Easy moves: Perceptual fluency facilitates approach-related action. *Emotion*, 16(4), 540.
- Casasanto, D. (2009). Embodiment of abstract concepts: good and bad in right-and left-handers. *Journal of Experimental Psychology: General*, 138(3), 351.
- Castaño, R., Suján, M., Kacker, M., & Suján, H. (2008). Managing consumer uncertainty in the adoption of new products: Temporal distance and mental simulation. *Journal of Marketing Research*, 45(3), 320-336.
- Chang, C. (2012). The role of ad-evoked consumption visions in predicting brand attitudes: A relevancy principle model. *Psychology & Marketing*, 29(12), 956-967.
- Chen, F. P., Chen, H., Hou, H. C., & Fang, W. (2019). Do visual and haptic cues affect taste?. *Contemporary Management Research*, 15(1), 25-51.
- Chen, M., & Lin, C. H. (2021). What is in your hand influences your purchase intention: Effect of motor fluency on motor simulation. *Current Psychology*, 40(7), 3226-3234.
- Choi, N. H., Qiao, X., & Wang, L. (2020). Effects of multisensory cues, self-enhancing imagery and self-goal-achievement emotion on purchase intention. *The Journal of Asian Finance, Economics and Business*, 7(1): 141-151.
- Chrysochou, P., & Grunert, K. G. (2014). Health-related ad information and health motivation effects on product evaluations. *Journal of Business Research*, 67(6), 1209-1217.
- Cornil, Y., & Chandon, P. (2016). Pleasure as a substitute for size: How multisensory imagery can make people happier with smaller food portions. *Journal of Marketing Research*, 53(5): 847-864.
- Daugherty, T., Li, H., & Biocca, F. (2008). Consumer learning and the effects of virtual experience relative to indirect and direct product experience. *Psychology & Marketing*, 25(7): 568-586.
- Delivett, C. P., Klepacz, N. A., Farrow, C. V., Thomas, J. M., Raats, M. M., & Nash, R. A. (2020). Front-of-pack images can boost the perceived health benefits of dietary products. *Appetite*, 155, 104831.
- Donato, C., & Raimondo, M. A. (2021). The effects of online tactile information source for low-touch products on consumer responses. *Journal of Consumer Marketing*.
- Dreisbach, G., & Fischer, R. (2011). If it's hard to read... try harder! Processing fluency as signal for effort adjustments. *Psychological Research*, 75(5), 376-383.
- Ebisch, S. J. H., Perrucci, M. G., Ferretti, A., Del, G., Gian, Luca, R., & Gallese, V. (2008). The sense of touch: Embodied simulation in a visuotactile mirroring mechanism for observed animate or inanimate touch. *Journal of Cognitive Neuroscience*, 20(9), 1611-1623.
- Ehrsson, H. H. (2020). Multisensory processes in body ownership. *Multisensory Perception*, 179-200.
- Elder, R. S., & Krishna, A. (2012). The "visual depiction effect" in advertising: Facilitating embodied mental simulation through product orientation. *Journal of Consumer Research*, 38(6): 988-1003.

- Emanuel, R., & Challons-Lipton, S. (2013). Visual literacy and the digital native: Another look. *Journal of Visual Literacy*, 32(1), 7-26.
- Erwig, M., Smeltzer, K., & Wang, X. (2017). What is a visual language?. *Journal of Visual Languages & Computing*, 38, 9-17.
- Fahey, S., Santana, C., Kitada, R., & Zheng, Z. (2019). Affective judgement of social touch on a hand associated with hand embodiment. *Quarterly Journal of Experimental Psychology*, 72(10), 2408-2422.
- Fenko, A., De Vries, R., & Van Rompay, T. (2018). How strong is your coffee? The influence of visual metaphors and textual claims on consumers' flavor perception and product evaluation. *Frontiers in Psychology*, 9:53
- Frasquet, M., Ieva, M., & Ziliani, C. (2021). Online channel adoption in supermarket retailing. *Journal of Retailing and Consumer Services*, 59: 102374.
- Gallese, V. (2005). Embodied simulation: From neurons to phenomenal experience. *Phenomenology and the Cognitive Sciences*, 4, 23-48.
- Ghosh, T., & Sarkar, A. (2016). "To feel a place of heaven": Examining the role of sensory reference cues and capacity for imagination in destination marketing. *Journal of Travel & Tourism Marketing*, 33(sup1), 25-37.
- Gkiouzepas, L., & Hogg, M. K. (2011). Articulating a new framework for visual metaphors in advertising. *Journal of Advertising*, 40(1): 103-120.
- Gomes, K., Betza, S., & Riggs, S. L. (2020). Now you feel it, now you don't: The effect of movement, cue complexity, and body location on tactile change detection. *Human factors*, 62(4): 643-655.
- Green, T. R. G., & Petre, M. (1996). Usability analysis of visual programming environments: a 'cognitive dimensions' framework. *Journal of Visual Languages & Computing*, 7(2), 131-174.
- Gurguryan, L., Dutemple, E., & Sheldon, S. (2021). Conceptual similarity alters the impact of context shifts on temporal memory. *Memory*, 29(1): 11-20.
- Hayes, A. F. (2013). An introduction to mediation, moderation, and conditional process analysis: A regression-based approach. *New York: Guilford Press*.
- Herrero, E., Mantovani, D. M. N., & Lopes, E. L. (2022). Why Is the Placebo Effect Different in Marketing? A Study on Moderating Persuasion by Authority. *Review of Marketing Science*.
- Herz, M., & Diamantopoulos, A. (2017). I use it but will tell you that I don't: Consumers' country-of-origin cue usage denial. *Journal of International Marketing*, 25(2): 52-71.
- Jai, T. M. C., Fang, D., & Bao, F. S. (2021). Seeing it is like touching it: unraveling the effective product presentations on online apparel purchase decisions and brain activity (An fMRI Study). *Journal of Interactive Marketing*, 53: 66-79.
- Jang, S. Y., & Ha, J. (2021). The influence of tactile information on the human evaluation of tactile properties. *Fashion and Textiles*, 8(1), 1-14.
- Jeong, S. H. (2008). Visual Metaphor in Advertising: Is the Persuasive Effect Attributable to Visual Argumentation or Metaphorical Rhetoric?. *Journal of Marketing Communications*, 14(1):59-73.
- Jha, S., Balaji, M. S., & Stafford, M. B. R. (2019). Haptic information processing and need for touch in product evaluation. *Journal of Consumer Marketing*.
- Kahn, K. (1996, September). Seeing systolic computations in a video game world. *In Proceedings 1996 IEEE Symposium on Visual Languages (pp. 95-101)*. IEEE.
- Karangi, S. W., & Lowe, B. (2021). Haptics and brands: The effect of touch on product evaluation of branded products. *Journal of Consumer Behaviour*, 20(6), 1480-1496.



- Katsuyama, N., Kikuchi-Tachi, E., Usui, N., Yoshizawa, H., Saito, A., & Taira, M. (2018). Effect of visual information on active touch during mirror visual feedback. *Frontiers in Human Neuroscience*, 12, 424.
- Keysers, C., Wicker, B., Gazzola, V., Anton, J. L., Fogassi, L., & Gallese, V. (2004). "A Touching Sight: SII/PV Activation During the Observation and Experience of Touch". *Neuron*, 42 (2): 335–346.
- Klatzky, R. L., Lederman, S. J., & Matula, D. E. (1993). Haptic exploration in the presence of vision. *Journal of Experimental Psychology: Human Perception and Performance*, 19(4), 726-743.
- Kimura, T., & Katayama, J. I. (2018). The approach of visual stimuli influences expectations about stimulus types for subsequent somatosensory stimuli. *Experimental Brain Research*, 236(6), 1563-1571.
- Kuehn, E., Haggard, P., Villringer, A., Pleger, B., & Sereno, M. I. (2018). Visually-driven maps in area 3b. *Journal of Neuroscience*, 38(5), 1295-1310.
- Lagerwerf, L., Hooijdonk, C. V., & Korenberg, A. (2012). Processing visual rhetoric in advertisements: Interpretations determined by verbal anchoring and visual structure. *Journal of Pragmatics*, 44(13):1836-1852.
- Lederman, S. J., & Klatzky, R. L. (1987). Hand movements: A window into haptic object recognition. *Cognitive psychology*, 19(3): 342-368.
- Lee, H. K., & Choi, D. (2022). Can I touch the clothes on the screen? The mental simulation for touch in online fashion shopping. *Journal of Fashion Marketing and Management: An International Journal*, (ahead-of-print), 1-18.
- Lee, H. K., & Choi, D. (2021). Touch Effect of Mental Simulation in Online Fashion Shopping-The Role of Instrumental and Autotelic Needs for Touch. *Journal of the Korean Society of Clothing and Textiles*, 45(2), 376-389.
- Lee, R. P., & Grewal, R. (2004). Strategic responses to new technologies and their impact on firm performance. *Journal of Marketing*, 68(4), 157-171.
- Lee, W., & Gretzel, U. (2012). Designing persuasive destination websites: A mental imagery processing perspective. *Tourism Management*, 33(5):1270-1280.
- Li, X., Dahana, W. D., Li, T., & Yuan, J. (2021). Behavioral changes of multichannel customers: Their persistence and influencing factors. *Journal of Retailing and Consumer Services*, 58, 102335.
- Li, X., Wirawan, D., Ye, Q., Peng, L., & Zhou, J. (2021). How does shopping duration evolve and influence buying behavior? The role of marketing and shopping environment. *Journal of Retailing and Consumer Services*, 62, 102607.
- Liao, S. H., & Yang, L. L. (2020). Mobile payment and online to offline retail business models. *Journal of Retailing and Consumer Services*, 57: 102230.
- Liu, Y., Jiang, Z., & Chan, H. C. (2019). Touching products virtually: Facilitating consumer mental imagery with gesture control and visual presentation. *Journal of Management Information Systems*, 36(3), 823-854.
- Liu, Y., Zang, X., & Chen, L. (2018). Vicariously touching products through observing others' hand actions increases purchasing intention, and the effect of visual perspective in this process: An fMRI study. *Humanbrain Mapping*, 39(1): 332-343.
- Luangrath, A. W., Peck, J., Hedgcock, W., & Xu, Y. (2022). Observing Product Touch: The Vicarious Haptic Effect in Digital Marketing and Virtual Reality. *Journal of Marketing Research*, 59(2), 306-326.
- Lv, X., Li, H., & Xia, L. (2020). Effects of haptic cues on consumers' online hotel booking decisions: the mediating role of mental imagery. *Tourism management*, 77: 104025.

- Maille, V., Morrin, M., & Reynolds-McIlnay, R. (2020). On the other hand...: Enhancing promotional effectiveness with haptic cues. *Journal of Marketing Research*, 57(1): 100-117.
- Malamed, C. (2009). *Visual language for designers: Principles for creating graphics that people understand*. Rockport Publishers.
- Margariti, K., Boutsouki, C., & Hatzithomas, L. (2019). Visual metaphors in food advertising: A cross-cultural study. *Food Research International*, 115: 338-351.
- McCabe, A. (1983). Conceptual similarity and the quality of metaphor in isolated sentences versus extended contexts. *Journal of Psycholinguistic Research*, 12(1): 41-68.
- McCabe, D. B., & Nowlis, S. M. (2003). The effect of examining actual products or product descriptions on consumer preference. *Journal of Consumer Psychology*, 13(4): 431-439.
- Milhou, A., Brouillet, T., Dru, V., Coello, Y., & Brouillet, D. (2017). Valence activates motor fluency simulation and biases perceptual judgment. *Psychological Research*, 81(4), 795-805.
- Miller, G. A. (1994). The magical number seven plus or minus two: some limits on our capacity for processing information. *Psychological Review*, 101(2): 343-352.
- Moseley, G. L., Olthof, N., Venema, A., Don, S., Wijers, M., Gallace, A., & Spence, C. (2008). Psychologically induced cooling of a specific body part caused by the illusory ownership of an artificial counterpart. *Proceedings of the National Academy of Sciences*, 105(35), 13169-13173.
- Murphy, D. H., Huckins, S. C., Rhodes, M. G., & Castel, A. D. (2022). The effect of perceptual processing fluency and value on metacognition and remembering. *Psychonomic Bulletin & Review*, 29(3), 910-921.
- Myers, J., & Jung, J. M. (2019). The interplay between consumer self-view, cognitive style, and creative visual metaphors in print advertising. *Journal of Marketing Communications*, 25(3): 229-246.
- Novemsky, N., Dhar, R., Schwarz, N., & Simonson, I. (2007). Preference fluency in choice. *Journal of Marketing Research*, 44(3), 347-356.
- O'Donnell, M., & Evers, E. R. K. (2019). Preference reversals in willingness to pay and choice. *Journal of Consumer Research*, 45(6): 1315-1330.
- Papies, E. K., Best, M., & Gelibter, E. (2017). The role of simulations in consumer experiences and behavior: Insights from the grounded cognition theory of desire. *Journal of the Association for Consumer Research*, 2(4): 402-418.
- Park, M. (2006). The compensatory effects of pictorial and verbal information for haptic information on consumer responses in non-store shopping environments. *The Ohio State University*.
- Park, M., & Yoo, J. (2020). Effects of perceived interactivity of augmented reality on consumer responses: A mental imagery perspective. *Journal of Retailing and Consumer Services*, 52, 101912.
- Petit, O., Spence, C., Velasco, C., Woods, A. T., & Cheek, A. D. (2017). Changing the influence of portion size on consumer behavior via imagined consumption. *Journal of Business Research*, 75, 240-248.
- Petit, O., Velasco, C., & Spence, C. (2018). Are large portions always bad? Using the Delboeuf illusion on food packaging to nudge consumer behavior. *Marketing Letters*, 29(4), 435-449.
- Phillips, B. J., & McQuarrie, E. F. (2004). Beyond visual metaphor: A new typology of visual rhetoric in advertising. *Marketing Theory*, 4(1-2): 113-136.
- Pino, G., Amatulli, C., & Natarajan, R. (2020). Product touch in the real and digital world: How do consumers react?. *Journal of Business Research*, 112: 492-501.

- Pollock, J. (2020). Holism, conceptual role, and conceptual similarity. *Philosophical Psychology*, 33(3): 396-420.
- Preacher K. J., Rucker, D. D., & Hayes A. F. (2007). Assessing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42: 185-227.
- Ranaweera, A. T., Martin, B. A. S., & Jin, H. S. (2021). What you touch, touches you: The influence of haptic attributes on consumer product impressions. *Psychology & Marketing*, 38(1): 183-195.
- Rathee, R., & Rajain, P. (2019). Online shopping environments and consumer's Need for Touch. *Journal of Advances in Management Research*.
- Rennie, L., Uskul, A. K., Adams, C., & Appleton, K. (2014). Visualisation for increasing health intentions: Enhanced effects following a health message and when using a first-person perspective. *Psychology & Health*, 29(2), 237-252.
- Rodrigues, T., Silva, S. C., & Duarte, P. (2017). The value of textual haptic information in online clothing shopping. *Journal of Fashion Marketing & Management*, 21(1): 88-102.
- Sathian, K. (2016). Analysis of haptic information in the cerebral cortex. *Journal of Neurophysiology*, 116(4): 1795-1806.
- Schilperoord, J., & Maes, A. (2010). Visuele hyperbolen. *Tijdschrift voor taalbeheersing*, 32(2), 75-94.
- Schilperoord, J., Maes, A., & Ferdinandusse, H. (2009). Perceptual and conceptual visual rhetoric: the case of symmetric object alignment. *Metaphor and Symbol*, 24(3): 155-173.
- Schirmer, A., & McGlone, F. (2019). A touching sight: EEG/ERP correlates for the vicarious processing of affectionate touch. *Cortex*, 111, 1-15.
- Sekuler, R., & Blake, R. (1994). Perception McGraw-Hill. Inc.
- Shapiro, S. (1999). When an ad's influence is beyond our conscious control: Perceptual and conceptual fluency effects caused by incidental ad exposure. *Journal of Consumer Research*, 26(1), 16-36.
- Shiv, B., Carmon, Z., & Ariely, D. (2005). Placebo effects of marketing actions: Consumers may get what they pay for. *Journal of Marketing Research*, 42(4), 383-393.
- Silva, S. C., Rocha, T. V., De Cicco, R., Galhanone, R. F., & Mattos, L. T. M. F. (2021). Need for touch and haptic imagery: An investigation in online fashion shopping. *Journal of Retailing and Consumer Services*, 59, 102378.
- Slater, M., Pérez Marcos, D., Ehrsson, H., & Sanchez-Vives, M. V. (2009). Inducing illusory ownership of a virtual body. *Frontiers in Neuroscience*, 29.
- Strothotte, C., & Strothotte, T. (2012). Seeing between the pixels: pictures in interactive systems. *Springer Science & Business Media*.
- Tan, L. (2020). Human action pattern recognition and semantic research based on embodied cognition theory. *International Journal of Pattern Recognition and Artificial Intelligence*, 34(05), 2055013.
- Taylor, S. E., Pham, L. B., & Rivkin, I. D. (1998). Harnessing the imagination: Mental simulation, self-regulation, and coping. *American psychologist*, 53(4): 429.
- Taylor, S. E., & Schneider, S. K. (1989). Coping and the simulation of events. *Social Cognition*, 7(2): 174-194.
- Tholen, M. G., Trautwein, F. M., Böckler, A., Singer, T., & Kanske, P. (2020). Functional magnetic resonance imaging (fMRI) item analysis of empathy and theory of mind. *Human Brain Mapping*, 41(10), 2611-2628.
- Van Mulken, M., Van Hooft, A., & Nederstigt, U. (2014). Finding the tipping point: Visual metaphor and conceptual complexity in advertising. *Journal of Advertising*, 43(4): 333-343.

- Vila, N., & Ampuero, O. (2006). Consumer perceptions of product packaging. *Journal of consumer marketing*, 23(2), 100-112.
- Vollenbroek, M. (2021). *Organic look, healthier product? An experimental study on the influence of organic illustrations and typeface on the perceived healthiness, taste expectation and purchase intention (Master's thesis, University of Twente)*.
- Waheed, A., Zhang, Q., Farrukh, M., & Khan, S. Z. (2021). Effect of Mobile Social Apps on Consumer's Purchase Attitude: Role of Trust and Technological Factors in Developing Nations. *SAGE Open*, 11(2), 21582440211006714.
- Ward, J., Schnakenberg, P., & Banissy, M. J. (2018). The relationship between mirror-touch synaesthesia and empathy: New evidence and a new screening tool. *Cognitive Neuropsychology*, 35(5-6), 314-332.
- Wegner, D. M., Sparrow, B., & Winerman, L. (2004). Vicarious agency: experiencing control over the movements of others. *Journal of Personality and Social Psychology*, 86(6): 838.
- Winkielman, P., & Berridge, K. (2003). Irrational wanting and subrational liking: How rudimentary motivational and affective processes shape preferences and choices. *Political Psychology*, 24(4), 657-680.
- Witty, R. W. (1977). Dimensional flowcharting. *Software: Practice and Experience*, 7(5), 553-584.
- Wu, L., Park, S. Y., & Ju, I. (2021). Process or outcome focus? Understanding the impact of future time perspective on advertising effectiveness. *Journal of Current Issues & Research in Advertising*, 42(1), 62-82.
- Xie, H., Minton, E. A., & Kahle, L. R. (2016). Cake or fruit? Influencing healthy food choice through the interaction of automatic and instructed mental simulation. *Marketing Letters*, 27(4): 627-644.
- Yi, K., Li, Y., Chen, J., Yu, M., & Li, X. (2022). Appeal of word of mouth: Influences of public opinions and sentiment on ports in corporate choice of import and export trade in the post-COVID-19 era. *Ocean & Coastal Management*, 225, 106239.
- Yi, K., Zhang, L., Mao, X., Li, Y., & Bao, J. (2021). Evaluating Technological Innovation of Media Companies from the Perspective of Technological Ecosystem. *Wireless Communications and Mobile Computing*.
- Yim, M. Y. C., Baek, T. H., & Sauer, P. L. (2018). I see myself in service and product consumptions: measuring self-transformative consumption vision (SCV) evoked by static and rich media. *Journal of Interactive Marketing*, 44: 122-139.
- Yim, M. Y. C., & Yoo, C. Y. (2020). Are digital menus really better than traditional menus? The mediating role of consumption visions and menu enjoyment. *Journal of Interactive Marketing*, 50: 65-80.
- Yim, M. Y. C., Kim, Y. K., & Lee, J. G. (2021). How to easily facilitate consumers' mental simulation through advertising: the effectiveness of self-referencing image dynamics on purchase intention. *International Journal of Advertising*, 40(5): 810-834.
- Yoganathan, V., Osburg, V. S., & Akhtar, P. (2019). Sensory stimulation for sensible consumption: Multisensory marketing for e-tailing of ethical brands. *Journal of Business Research*, 96: 386-396.
- Yoo, J., & Kim, M. (2014). The effects of online product presentation on consumer responses: A mental imagery perspective. *Journal of Business Research*, 67(11): 2464-2472.
- Yoon, S., Bang, H., Choi, D., & Kim, K. (2021). Slow versus fast: How speed-induced construal affects perceptions of advertising messages. *International Journal of Advertising*, 40(2), 225-245.

- Zazio, A., Guidali, G., Maddaluno, O., Miniussi, C., & Bolognini, N. (2019). Hebbian associative plasticity in the visuo-tactile domain: A cross-modal paired associative stimulation protocol. *Neuroimage*, 201, 116025.
- Zeugin, D., Notter, M. P., Knebel, J. F., & Ionta, S. (2020). Temporo-parietal contribution to the mental representations of self/other face. *Brain and Cognition*, 143, 105600.
- Zhao, M., Hoeffler, S., & Zauberan, G. (2007). Mental simulation and preference consistency over time: The role of process-versus outcome-focused thoughts. *Journal of Marketing Research*, 44(3): 379-388.
- Zhao, M., Hoeffler, S., & Zauberan, G. (2011). Mental Simulation and Product Evaluation: The Affective and Cognitive Dimensions of Process Versus Outcome Simulation. *Journal of Marketing Research*, 48(5):827-839.
- Zhao, X., Lynch Jr, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197-206.
- Zheng, X., Baskin, E., & Dhar, R. (2019). By-brand or by-category? The effect of display format on brand extension evaluation. *Journal of Retailing*, 95(3): 76-85.
- Zhu, Y., & Meyer, J. (2017). Getting in touch with your thinking style: How touchscreens influence purchase. *Journal of Retailing and Consumer Services*, 38, 51-58.

**Appendix 1: Experimental pictures**

**Table 1 Results of Haptic Cues Influence in Glove Presentation**

Variables	Unstandardized Coefficients	Standardized Coefficients	t	Sig
C	1.509		16.384	0.000
Ln(Price)	-0.191	-0.070	-9.367	0.000
Ln(Comments)	0.960	0.855	114.871	0.000
Cues	0.407	0.059	8.143	0.000
R <sup>2</sup>			0.757	
R <sup>2</sup> (adjusted)			0.757	
Sig.F			0.000	
F			219.572	

**Table 2 Results of Haptic Cues Influence in Scarf Presentation**

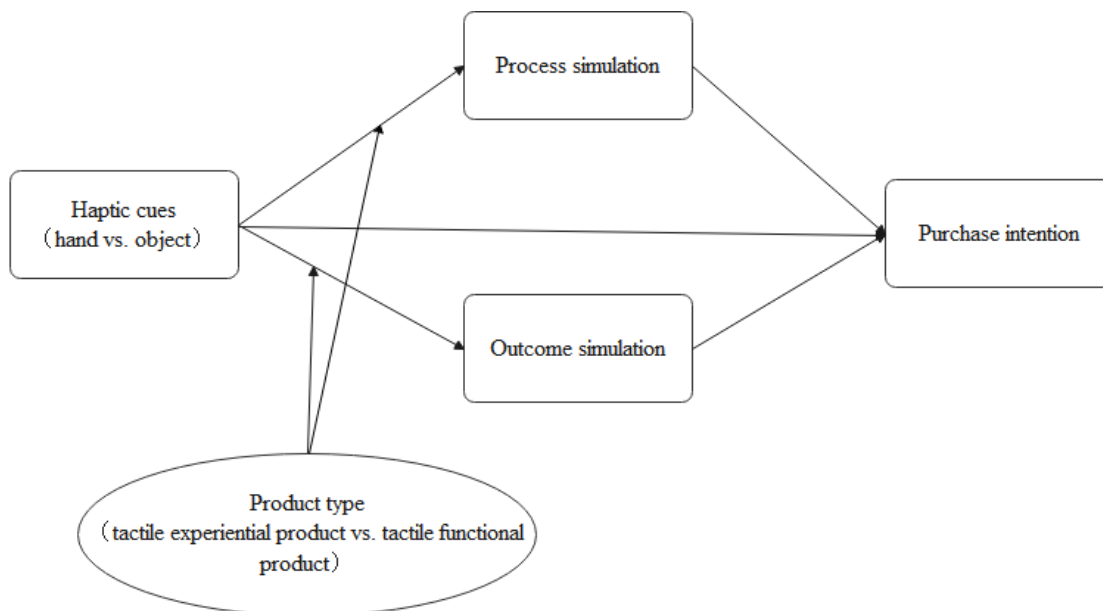
Variables	Unstandardized Coefficients	Standardized Coefficients	t	Sig
C	1.771		21.858	0.000
Ln(Price)	-0.105	-0.060	-6.955	0.000
Ln(Comments)	0.856	0.811	94.792	0.000
Cues	0.101	0.022	2.595	0.009

R <sup>2</sup>	0.683
R <sup>2</sup> (adjusted)	0.683
Sig.F	0.000
F	3283.244

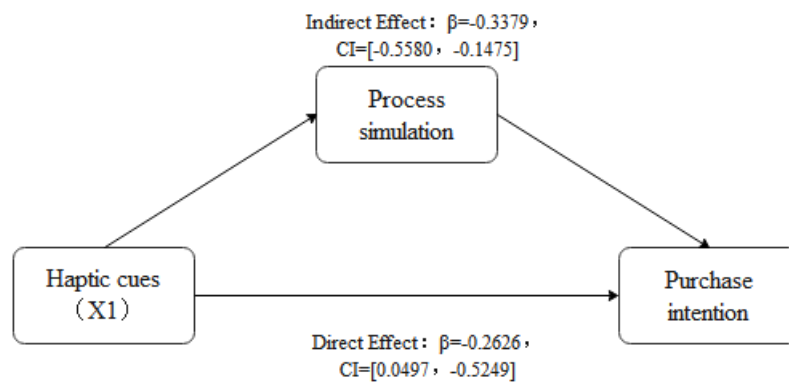
**Table 3 Results of Haptic Cues Influence in Pinch Meter Presentation**

Variables	Unstandar dized Coefficien ts	Standardized Coefficients	t	Sig
C	0.641		8.354	0.000
Ln(Price)	-0.051	-0.019	-2.282	0.023
Ln(Comments)	1.030	0.796	92.766	0.000
Cues	0.522	0.105	12.276	0.000
R <sup>2</sup>			0.689	
R <sup>2</sup> (adjusted)			0.689	
Sig.F			0.000	
F			3345.790	

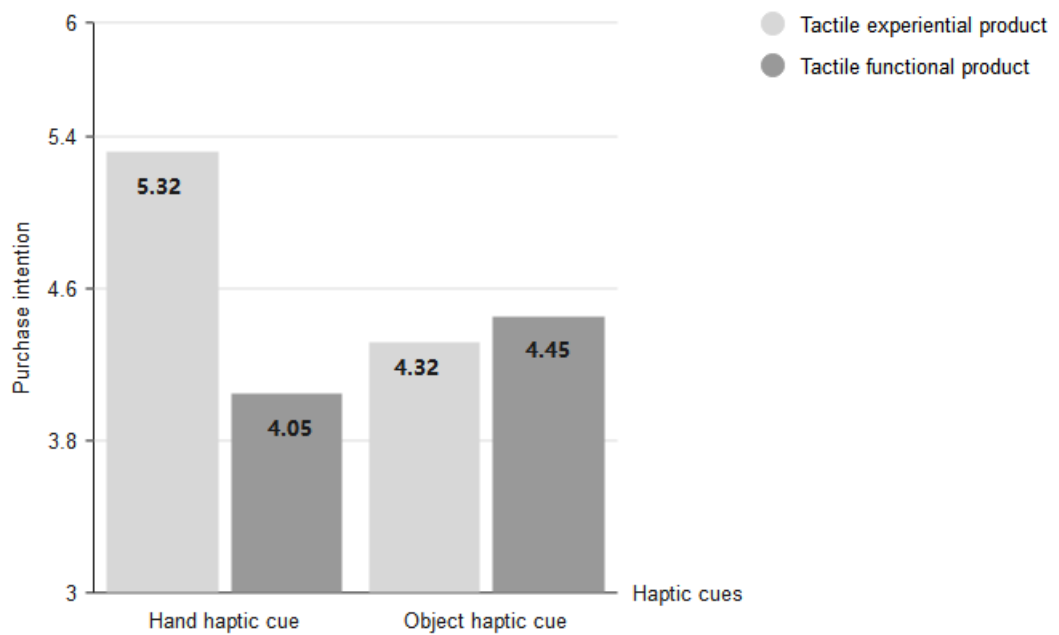
**Figure 1 The Theoretical Model**



**Figure 2 The Mediating Effect of Process Simulation**



**Figure 3 Interaction Effects between Haptic Cues and Product Types**



**Figure 4 Mediating Effect of Process Simulation (Tactile experiential product) and Outcome Simulation (Tactile Functional Product)**

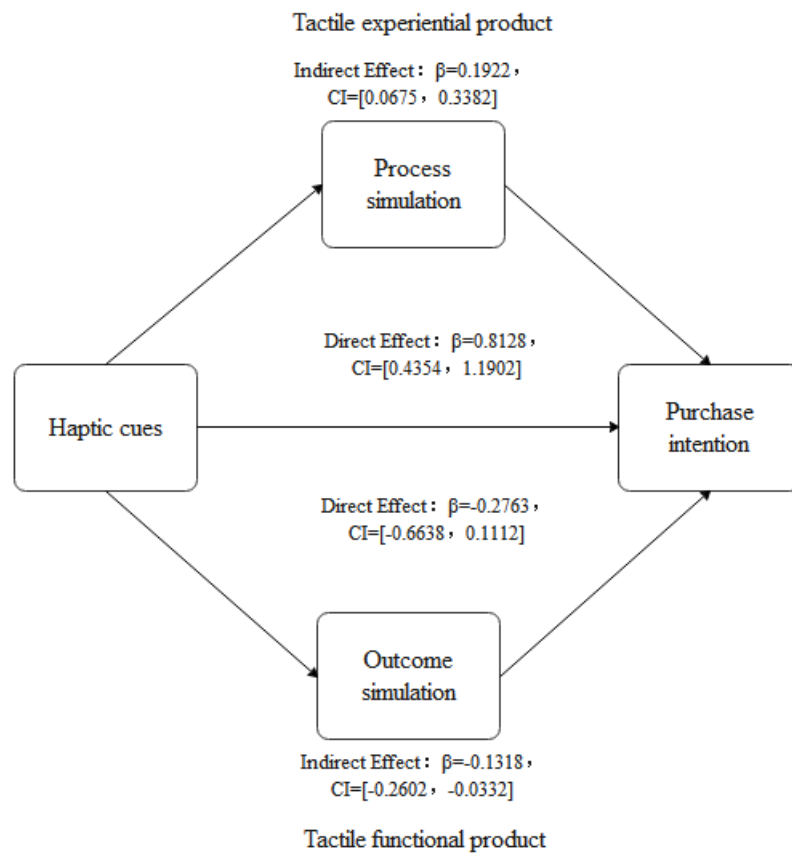


Figure 5 Study 2 Stimulus Materials

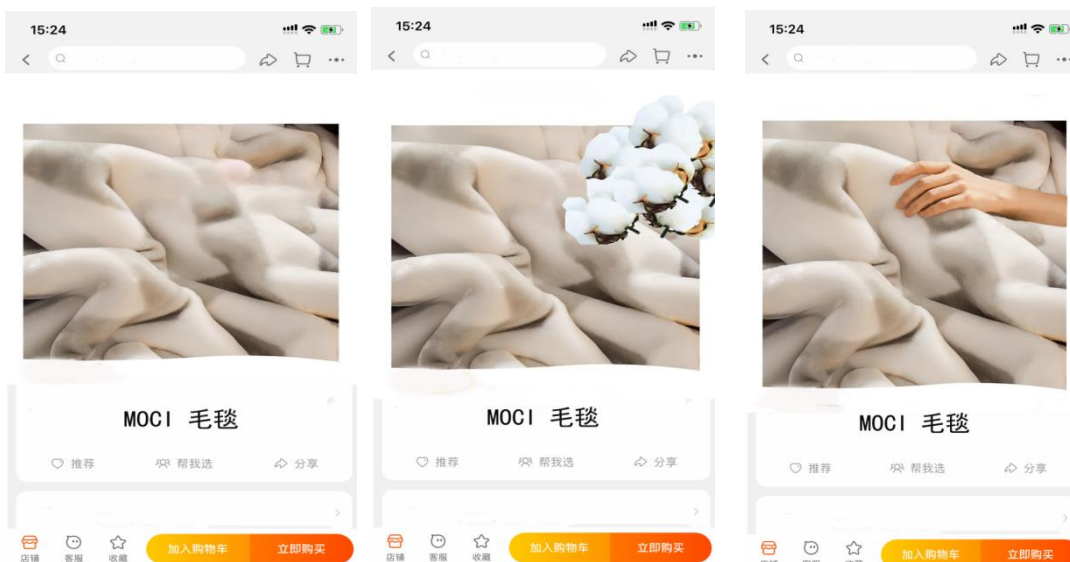




Figure 6 Study 3 Stimulus Materials





**Appendix 2: Scale**

(using blanket as an example)

Variables	Title items
<b>Metaphorical Control Pre-test</b>	Do you think this product display page contains two objects between the hand and the blanket, they are related (1=strongly disagree, 7=strongly agree)
	Do you think this product display page contains two objects between the hand and the blanket, they are similar (1=strongly disagree, 7=strongly agree)
	What do you think of the product's detail display page? (1 = straightforward and responsive to facts, 7 = metaphorical and abstract)
<b>Mental Simulation Pre-test</b> (Xie et al., 2016)	When you are using this blanket, to what extent can you simulate the feeling of enjoying using this blanket? (e.g., touch it, feel the texture, weight, softness, etc.) (1 = not at all, 7 = to a great extent)
	After you have used this blanket, to what extent can you simulate the feeling of enjoying using this blanket? (e.g., touch it, feel the texture, weight, softness, etc.) (1 = not at all, 7 = to a great extent)
<b>Process Simulation</b> (Xie et al., 2016)	When you viewed the blanket picture, how much did you think about the process of using and enjoying the blanket? (1 = not at all, 7 = very much);
	To what extent did images of using the blanket come to mind? (1 = not at all, 7 = to a great extent)
	Please indicate to what extent you could imagine using this blanket. (1 = not at all, 7 = to a great extent)
	How easy was it to imagine using this blanket? (1 = extremely difficult, 7 = extremely easy);
	How quickly did you start to think about using this blanket? (1 = not at all quickly, 7 = very quickly)
	How much do you agree or disagree with the statement that I had no difficulty imagining using and enjoying this blanket? (1 = strongly disagree, 7 = strongly agree).
<b>Outcome Simulation</b> (Xie et al., 2016)	When you viewed the blanket picture, how much did you think about how you would feel after using the blanket? (1 = not at all, 7 = very much);
	To what extent did images of how you would feel after using the blanket come to mind? (1 = not at all, 7 = to a great extent);
	Please indicate to what extent you could imagine how you would feel after using the blanket. (1 = not at all, 7 = to a great extent);
	How easy was it to imagine how you would feel after using the blanket? (1 = extremely difficult, 7 = extremely easy);
	How quickly did you start to think about how you would feel after using the blanket? (1 = not at all quickly, 7 = very quickly);
	How much do you agree or disagree with the statement that I had no difficulty imagining how I would feel after using the blanket. (1 = strongly disagree, 7 = strongly agree).
	I will buy this one product (1="probably", 7="very likely")

<b>Purchase intention</b> (Bearden et al., 1984; Bone and Ellen, 1992; Biocca et al., 2001; Daugherty et al., 2008)	I will buy this one product (1="no probability", 7="maximum probability")
	I will buy this product (1="very uncertain", 7="very certain")
	I will buy this product (1="very unsure", 7="very sure")

## **VIRTUAL REPUTATION MANAGEMENT TACTICS AND SOCIAL MEDIA BEHAVIOR**

**Atefeh Yazdanparast, Clark University, USA  
Gina A. Tran, Florida Gulf Coast University, USA**

---

### **EXTENDED ABSTRACT**

Social networking sites (SNSs) have insinuated themselves into myriad aspects of many consumers' daily lives and currently function as important social platforms for digitally-mediated communications. SNS users spend a lot of time on these platforms with recent statistics indicating that on average, people spend more than two hours on SNSs each day (Verduyn et al., 2020). SNSs allow users to create a personal profile, generate a list of online connections, and view and interact with information on these platforms which could include posts of one's connections. With these features, SNSs have fundamentally changed the way consumers interact.

Individuals have a fundamental need for social connection, and SNSs provide a wide range of tools which may fulfill this need. Consumers can leverage SNSs to accelerate both the formation and scope of groups and their influence within those groups (Kane et al., 2009). As such, SNSs enable users to present themselves, connect within various social groups, and develop and maintain relationships with others (Kane et al., 2009). SNSs simultaneously encourage and facilitate broadcasting personal brands among users. Most humans naturally seek to gain or secure social approval and fear and seek to avoid social exclusion (Daly & Silver, 2008). As such, virtual reputation management (VRM) has become a defining feature of online life for many individuals. Prior research focusing on reputation management in the virtual environment has generally studied firms' practices to promote a positive brand image online by increasing the visibility of positive information and managing negative information (e.g., Becker & Nobre, 2014; Manaman, Jamali, & AleAhmad, 2016; Proserpio & Zervas, 2017). However, virtual reputation management as a tendency for individuals to curate a desired self-image through selective presentation of personal traits and behaviors has not received much academic scrutiny.

Any entity's individual or organizational reputation is reflected in how others would predict and explain the knowledge, expertise, competency, judgements, and behaviors of reputation-bearers across different contexts. Merriam-Webster (2022) defines reputation as an "overall quality or character as seen or judged by people in general." Merriam-Webster further defines reputation as "recognition by other people of some characteristic or ability." Many opportunities exist for consumers to use virtual settings to make managed impressions upon others. By curating how, when, and with whom they engage on SNSs, users have the opportunity to influence how targeted others perceive them. Consequently, users may seek to manage their virtual reputations by allocating and distributing carefully selected messaging content on SNSs.

We draw on impression management theory to examine consumers' use of virtual reputation management tactics in SNSs. Specifically, we examine four different tactics for reputation management (i.e., self-promotion, self-ingratiation, intimidation, and self-exemplification) in social networks and compare their effect on propensity to use SNSs.

Further, we analyze the relationships between these approaches used by consumers, their effect on consumers' attitudes toward SNSs, and the consequent impact on SNS users' purchase intentions for market offerings recommended in these platforms.

Impression management theory is one of the most influential theories focusing on reputation (Srivoravilai et al., 2011), focusing on the process by which individuals attempt to control the impressions that others form of them (Rosenfeld et al., 1996). According to the theory, individuals are more motivated to engage in impression management strategies when their behaviors are public and their image is seen as important in achieving their goals (Bolino et al., 2016). Impression management theory has been mainly applied to organizational behavior research to examine the relationship between self-presentation and the ability to get a job or secure promotion or a pay increase (Bolino et al., 2016). However, there is limited exploration of impression behaviors adopted by SNS users as they seek to positively influence others. The process of strategically creating impressions upon others about oneself entails deciding upon the desired impression(s) and determining how to create the desired impressions. Individuals purposely manage how they present themselves to others by choosing specific interactions, behaviors, and communications (Pontari & Schlenker, 2006). Such activities are generally motivated by one or more of three purposes. First, to elevate or maintain interpersonal influence. Second, to facilitate identity formation or to raise self-esteem. Third, to foster positive emotions (Leary, 1996). SNSs are a natural and relatively easy medium for reputation management efforts. Thus, the ability to use SNSs to achieve VRM goals could impact attitudes toward SNSs, which consequently affect receptivity toward market offerings on these platforms.

To test the proposed relationships, data were collected using an online questionnaire (n = 1083; 58.2% male). A snowball sampling technique was followed to increase the size and generalizability of the sample (Cooper & Schindler, 2008). All construct items used were modified from existing scales (seven-point Likert-type scales ranging from 1 = strongly disagree to 7 = strongly agree were used) and showed high reliability (Cronbach's alphas more than .7). Regression analysis indicated that all four VRM approaches significantly and positively affect propensity to use SNSs. To test the hypotheses, PROCESS Model 4 with 5000 bootstraps was employed. The results supported the mediation relationships as the confidence intervals for the indirect effect of each VRM tactic on purchase intention did not contain a zero. Moreover, all four VRM approaches significantly and positively affected attitude toward SNSs, which in turn, significantly and positively affected purchase intentions for market offerings on SNSs. Supplemental analyses revealed that, in line with impression management theory predictions, all four VRM tactics result in positive emotions (and no negative emotions), which in turn, affects attitudes toward SNSs and propensity to use them. Further, the results show that age and gender are not significant control factors.

The present study draws on impression management theory to understand the role of VRM in SNS attitudes, usage, and effect on purchase behaviors of SNS users. The results show that networked self-promotion, self-ingratiation, self-exemplification, and intimidation behaviors (all impression management tactics) influence individuals' attitudes toward SNSs and result in more receptivity to market offerings recommended in these platforms. The present research connects reputation management literature with SNS research to shed more light on why consumers use SNSs. The result indicate that individuals engage in SNSs with VRM goals in mind and try to achieve these goals through various tactics. It is the ability to use various tactics that enhances consumers' attitudes toward SNSs, their propensity to use

these platforms, and affect their behavioral tendencies to purchase market offerings recommended through them.

## REFERENCES

- Becker, K., & Nobre, H. (2014). Social network reputation management: An international study. *Journal of Promotion Management*, 20(4), 436-451.
- Bolino, M. C., & Turnley, W. H. (2003). More than one way to make an impression: Exploring profiles of impression management. *Journal of Management*, 29(2), 141-160.
- Cooper, Donald R. and Pamela S. Schindler (2008), *Business Research Methods*, 10<sup>th</sup> edition. Boston: McGraw-Hill Irwin.
- Daly, J. A., & Kreiser, P. O. (1994). Affinity seeking. *Strategic Interpersonal Communication*, 109-134.
- Kane, G. C., Fichman, R. G., Gallagher, J., & Glaser, J. (2009). Community relations 2.0. *Harvard Business Review*, 87(11), 45-50.
- Leary, M. (1996). *Self-presentation, impression management and interpersonal behavior*. Boulder, CO: Westview Press.
- Manaman, H. S., Jamali, S. & AleAhmad, A. (2016). Online reputation measurement of companies based on user-generated content in online social networks. *Computers in Human Behavior*, 54, 94-100.
- Merriam-Webster Dictionary (n.d.). Definition of reputation. Retrieved October 19, 2022, from <https://www.merriam-webster.com/dictionary/reputation>
- Pontari, B. A., & Schlenker, B. R. (2006). Helping friends manage impressions: We like helpful liars but respect nonhelpful truth tellers. *Basic and Applied Social Psychology*, 28(2), 177-183.
- Proserpio, D., & Zervas, G. (2017). Online reputation management: Estimating the impact of management responses on consumer reviews. *Marketing Science* 36(5), 645-665.
- Rosenfeld, P., Booth-Kewley, S., Edwards, J. E., & Thomas, M. D. (1996). Responses on computer surveys: Impression management, social desirability, and the big brother syndrome. *Computers in Human Behavior*, 12(2), 263-274.
- Srivoravilai, N., Melewar, T. C., Liu, M. J., & Yannopoulou, N. (2011). Value marketing through corporate reputation: An empirical investigation of Thai hospitals. *Journal of Marketing Management*, 27(3-4), 243-268.
- Verduyn, P., Gugushvili, N., Massar, K., Täht, K., & Kross, E. (2020). Social comparison on social networking sites. *Current opinion in psychology*, 36, 32-37.

## **EXPLORING THE USE OF EMOJI IN DIGITAL CONTENT MARKETING: THE CONSUMER PERSPECTIVE**

**Qin Sun, California State University, Northridge**  
**Rajasree K. Rajamma, Fairfield University, Fairfield**  
**Lin Lu, Fairfield University, Fairfield**

---

### **ABSTRACT**

This study intends to understand the motivations behind emoji use by both consumers and firms in text messaging and the specific contexts they most frequently use emoji for. Python was used for content analysis and the results highlight inconsistent use between two parties in goals such as the different ways to express emotions and facilitate communication. The inconsistencies cause consumer confusion, leading consumers to think that the use of emojis by firms is either unprofessional or an inappropriate way to communicate. The findings extend the consumer confusion research into the newly emergent digital content marketing field and suggest that the use of emojis in digital content marketing is like a double-edged sword. Theoretical and practical implications were discussed along with future research directions.

### **References**

- Bacon, C., Barlas, F., Dowling, Z., & Thomas, R. (2017). How Effective Are Emojis in Surveys Taken on Mobile Devices? Data-Quality Implications and the Potential to Improve Mobile-Survey Engagement and Experience. *Journal of Advertising Research*, 57(4), 462-470.
- Bakamitsos, G. (2006). A cue alone or a probe to think? The dual role of affect in product evaluations. *Journal of Consumer Research*, 33 (3), 403-412.
- Das G., Wiener H. J. D., Kareklas I. (2019). To emoji or not to emoji? Examining the influence of emoji on consumer reactions to advertising. *Journal of Business Research*, 96, 147–156. <https://doi.org/10.1016/j.jbusres.2018.11.007>
- Liao, W., Zhang, Y., Huang, X., Xu, X., & Peng, X. (2021). “Emoji, I can feel your pain” – Neural responses to facial and emoji expressions of pain. *Biological Psychology*, 163, 108134–108134. <https://doi.org/10.1016/j.biopsycho.2021.108134>
- Marvin, G. (2020). This start-up is using AI to suggest emojis, social content for SMBs. Retrieved from [https://marketingland.com/this-start-up-is-using-ai-to-suggest-emojis-social-content-for-smbs-280020?MessageRunDetailID=2028090056&PostID=16325917&utm\\_medium=email&utm\\_source=rasa\\_io](https://marketingland.com/this-start-up-is-using-ai-to-suggest-emojis-social-content-for-smbs-280020?MessageRunDetailID=2028090056&PostID=16325917&utm_medium=email&utm_source=rasa_io)



Matzler, K., Stieger, D. and Füller, J. (2011), "Consumer Confusion in Internet-Based Mass Customization: Testing a Network of Antecedents and Consequences," *Journal of Consumer Policy*, 34(2), 231-47.

Mitchell, V. and Papavassiliou, V. (1999), "Marketing Causes and Implications of Consumer Confusion," *The Journal of Product and Brand Management*, 8(4), 319-39.

Mitchell, V., Wlash, G., Yamin, M. (2005), "Toward a Conceptual Model of Consumer Confusion," *Advances in Consumer Research*, 32, 143-50.

Shukla, P., Banerjee, M., and Adidam, P.J. (2010), "Antecedents and Consequences of Consumer Confusion: Analysis of the Financial Services Industry," *Advances in Consumer Research*, 37, 292 – 98.

## **Data Analytics: A Public Opinion Event Extraction Model**

**Qing Chuan Zhang, Beijing Technology and Business University**  
**Si Wei Wei, Beijing Technology and Business University**  
**Zi Han Li, Beijing Technology and Business University**  
**Wen Jing Yan\*, Beijing Technology and Business University**

---

### **ABSTRACT**

This paper contains both a comparison and contrast on the use of nontraditional media channels by a US president in order to communicate directly to the American population. Presidents Franklin Delano Roosevelt and Donald J. Trump have utilized the technology available in their respective time periods for the process of political disintermediation, side stepping the traditional news media to communicate directly with the American population.

Keywords: Event Extraction, Event Argument Extraction, NSP, NER, BERT

---

**HAVE WE REACHED A PRIVACY PLATEAU?**  
**CONSUMERS' EVOLVING PRIVACY CONCERNS AND**  
**THEIR ALIGNMENT WITH INCREASED STATE**  
**REGULATIONS**

**Debika Sihi, Southwestern University**

---

**EXTENDED ABSTRACT**

**Literature Review**

The e-commerce sector is growing rapidly. According to Morgan Stanley, e-commerce went from 15% of total global retail sales in 2019 to 21% in 2021 (Morgan Stanley, 2022). In addition to the convenience of purchases through the click of mouse or swipe of a finger has made it easier than ever for consumer information to be collected, sold, and shared.

The primary way businesses, including online retailers, provide notice to consumers about how they collect, use, and retain information about them is through the privacy policies listed in privacy notices on a retailer's website (Reidenberg et.al., 2015). In addition to legal compliance, retailers use privacy notices to decrease informational asymmetries between consumers and the retailers (Martin, 2015). Prior research suggests that consumers' privacy concerns are mitigated when online consumers are provided a priori notice of information being collected (Miyazaki, 2008) or when they have the ability to control and modify their privacy settings (Tucker, 2014). These elements provide the consumer more control in the exchange process reducing fairness

Interestingly, despite stated concerns, consumer engage in what is described as the "privacy paradox" in that consumers will submit personal information when they receive benefits from a company (Gerber et. al., 2018; Schumann et.al., 2014;) or believe other people are also disclosing their private information (Acquisti et.al., 2012). Further, with the growth of e-commerce during the pandemic, and growing concerns in other domains (health, economic), consumers' attitudes toward privacy seem to have become more relaxed (Sahota, 2020). However, at the United States state level, regulation around privacy is growing (Desai, 2022). After the passage of the General Data Protection Regulation (GDPR) in Europe in 2016 and its enactment in 2018, several states in the United States have launched their own privacy bills (Clark, 2021). Therefore, this exploratory research aims to understand U.S. based consumers' evolving privacy concerns and their alignment with enacted and proposed state regulations.

**Research Questions**

1. How have consumers' privacy concerns have evolved from 2017-2022?
2. How do the enacted and proposed U.S. state privacy regulations align with consumers' privacy concerns?

## **Methodology and Findings to Date**

### *Consumer surveys*

To address Research Question 1, a survey was conducted in 2017. The online privacy policies of the top 25 e-commerce retailers in 2016 were analyzed to determine the common elements of the privacy policies. Twelve common elements that were found in over a third of the policies included information about: (1) the type of personal information collected by the retailer, (2) how the retailer will use personal information, (3) the type of non-personal information collected by the retailer (e.g., zip code), (4) how the retailer will use non-personal information, (5) the use of cookie technology to collect information, (6) the use of web beacon technology to collect information, (7) the use of mobile device identifiers to collect information, (8), disclosure of information to third parties, (9) ability to access and update information, (10) choices regarding what information you (the consumer) provide and how it is used, (11) privacy related to children, and (12) ways to contact the retailer with privacy concerns. These elements were used as the basis of survey of online consumers.

The survey was conducted with 200 participants recruited through Amazon Mechanical Turk (MTurk). The results suggested that participants had the least understanding and least knowledge about some of the technologies used to collect their information and that their greatest concerns were about retailers' disclosure of information to third parties.

The same survey, adapted for an additional common element in current privacy notices, will be administered in early 2023. Comparison of the results of the surveys will provide greater insights about the evolution of consumers' privacy concerns after the pandemic and greater reliance on e-commerce. Concerns which have remained stable/changed will be identified.

### *Interviews with attorneys practicing in data protection/privacy*

Research question 2 requires comparing consumers' stated needs with the elements of state regulations. Therefore, to understand the implications of consumer concerns from a legal standpoint, insights were gathered from three prominent data privacy attorneys. Data privacy attorneys are at the forefront of litigation related to e-commerce and privacy regulations. Since they may represent consumers and retailers, they offer a largely unbiased frame of reference related to privacy issues. Three attorneys were interviewed in 2016 who focused on online advertising and digital privacy. Collectively, their insights suggested the need for increased transparency about third party data collection. The attorneys posited that greater transparency could aid both the consumer and the retailer in the event of a lawsuit and even prevent such legal actions from being initiated.

Interviews have been scheduled (early 2023) to gain their insights on how the state bills introduced in the past five years align with consumers' privacy concerns.

## **References**

Acquisti, A., John, L. K., & Loewenstein, G. (2012). The impact of relative standards on the propensity to disclose. *Journal of Marketing Research*, 49(2), 160-174.

## Proceedings of the Association of Collegiate Marketing Educators (2023)

- Clark, K. (2021, April 26). The current state of US state data privacy laws. *The Drum*.  
<https://www.thedrum.com/news/2021/04/26/the-current-state-us-state-data-privacy-laws>
- Desai, A. (2022). U.S. State Privacy Tracker.  
<https://iapp.org/resources/article/us-state-privacy-legislation-tracker/>
- Gerber, N., Gerber, P., & Volkamer, M. (2018). Explaining the privacy paradox: A systematic review of literature investigating privacy attitude and behavior. *Computers & Security*, 77, 226-261.
- Martin, K. (2015). Privacy notices as tabula rasa: An empirical investigation into how complying with a privacy notice is related to meeting privacy expectations online. *Journal of Public Policy & Marketing*, 34(2), 210-227.
- Miyazaki, A. D. (2008). Online privacy and the disclosure of cookie use: Effects on consumer trust and anticipated patronage. *Journal of Public Policy & Marketing*, 27(1), 19-33.
- Morgan Stanley (2022), Global e-commerce forecast.  
<https://www.morganstanley.com/ideas/global-ecommerce-growth-forecast-2022>
- Reidenberg, J. R., Breaux, T., Cranor, L. F., French, B., Grannis, A., Graves, J. T., ... & Ramanath, R. (2015). Disagreeable privacy policies: Mismatches between meaning and users' understanding. *Berkeley Tech. LJ*, 30, 39.
- Sahota, N. (2020, October 14). Privacy is dead and most people really don't care. *Forbes*.  
<https://www.forbes.com/sites/neilsahota/2020/10/14/privacy-is-dead-and-most-people-really-dont-care/?sh=12055dd27b73>
- Schumann, J. H., Von Wangenheim, F., & Groene, N. (2014). Targeted online advertising: Using reciprocity appeals to increase acceptance among users of free web services. *Journal of Marketing*, 78(1), 59-75.
- Tucker, C. E. (2014). Social networks, personalized advertising, and privacy controls. *Journal of Marketing Research*, 51(5), 546-562.

## **GLOBAL MARKETING AND CULTURE**

---

### **US AND GHANAIAN COLLEGE STUDENTS' PERCEPTIONS OF ADVERTISING-IN-GENERAL**

**Charles Blankson, University of North Texas, United States**  
**Robert A. Opoku, Red Deer Polytechnic, Canada**  
**Julius A. Nukpezah, Mississippi State University, United States**

---

#### **EXTENDED ABSTRACT**

Despite the increasing global interdependence, researchers have overlooked empirical investigation of perceptions towards advertising in international markets and specifically sub-Saharan Africa. The region appears to be the most under-researched in international marketing and business discourse (see Teagarden, Gilnow, and Mellahi, 2018). While the rationale motivating the comparative dearth of research on the sub-Saharan African marketplace may once have been reasonable, the associated reasons underlying the historical divisions between North American, Western European, Asian and African markets are no longer tenable, which renders the continued paucity of research indefensible (Blankson and Coffie, 2020, pp. 46). By responding to recent calls for research on African and other emerging markets (e.g., Sharma et al., 2018; Okazaki and Mueller, 2007) and research on sub-Saharan Africans' attitude towards advertisements (Gbadamosi et al., 2012), the present study attempts to fill the gap in the literature by leveraging a cross-national study to investigate perceptions of advertising-in-general.

To that end, the basic aim of this study is to examine consumers' perceptions of advertising-in-general using the US-college student and Ghanaian-college student cohorts as an illustration. In line with the aim of this study, the objectives of this study are, using the US-college student and Ghanaian-college student cohorts as an illustration, to (1) explore the adequacy of Pollay and Mittal's (1993) measurement of perceptions toward advertising-in-general and (2) identify latent factors in consumers' perceptions towards advertising-in-general.

In order to appreciate the study setting and test the items in the questionnaire, a pilot study involving classroom discussion with fifty US college students and fifty Ghanaian college students was undertaken. While representing an important segment of consumers for marketers,

it is also worthy to note that college student samples offer appealing homogeneity (Durvasula et al., 1993) in cross-national advertising studies (see Wolburg and Pokrywczynski, 2001).

Following Pollay and Mittal (1993), the respondents were asked, during class discussion on advertising, open-ended questions about their thoughts and perceptions of advertising in general, how advertising helped them (or not) to understand offerings (products, services and brands), what desirable and undesirable aspects of advertisements affected the society at large. The responses aided in our confidence in adopting Pollay and Mittal's (1993) classical seven-factor dimension. The main thrust of the research involved a survey based on questions adopted from Pollay and Mittal (1993) and Korgaonkar, Silverblatt, O'Leary (2001). These were an adaptation of the classic "Attitudes and perceptions about advertising-in-general" construct originally proposed by Bauer and Grayser (1968). The questionnaire was based on a 5-point Likert scale (ranging from 1= totally disagree/not important at all to 5= totally agree/very important). Using the "drop-off-and-pick-up" approach, and with the help of colleagues, the questionnaires were hand-delivered to students in classrooms in a major university located in the southwest of the US and a major university in Accra, Ghana.

Specifically, the data collection took place, intermittently, between September 2017 and May 2018 and involved a one wave cross-sectional survey. The population of the study was a convenience sample of college students. Overall, out of the 400 questionnaires distributed in the US, 248 usable questionnaires were received, yielding a 62% response rate. Out of the 400 questionnaires in Ghana, 242 usable questionnaires were obtained (60.5%) in a one wave cross-sectional study for the two contexts. The response rates compare favorably with similar cross-sectional data collection efforts reported in the scholarship (Cheng et al., 2009).

As noted earlier, a refined version of Bauer and Grayser's (1968) research advanced by Pollay and Mittal (1993) and also, Korgaonkar, Silverblatt and O'Leary (2001) was adopted. The latter was adopted because of its popularity among researchers. Pollay and Mittal's (1993) eight factors influencing perception of advertising are (i) product information, (ii) social role image, (iii) hedonic/pleasure, (iv) value corruption, (v) falsity/no sense, (vi) good for the economy, (vii) materialism and (viii) attitudes/intentions. Following Anderson, Engledow and Becker (1978), a separate factor analysis was performed on each cohort (US-college students and Ghanaian-college students) and with the initial factor matrix rotated to an orthogonal solution by the Varimax criterion.

The analysis of the data reveals that most US-college students are in the age group 18 to 20 (69.5%), followed by the 21 to 30 age group (25.8%). In contrast, only 2.8 percent and 1.2 percent were identified for the 31-40 and 41-50 age groups, respectively. In the Ghanaian cohort, most of the students were in the 21-30 age range (79.7%), followed by the 31-40 age group (12.2%). Consequently, the two groups are comparable for intellectual reasons since they likely would be at the same level in their education. In both the US (50.4%) and Ghanaian (65.8%) groups, there were more male respondents than females, 49.6% for the US, and 34.2% for Ghana. Exploration of the underlying structure of the data was carried out through exploratory factor analysis and the stepwise process suggested by Hair *et al.* (1998) was followed. Initial visual assessment of the descriptive statistics and correlation matrices for the two cohorts showed a considerable degree of inter-factor correlation.

Furthermore, the Bartlett test of Sphericity in US-college students: (*Approx. Chi-Square* = 2411.178; *df* = 378; *sig.* 0.000), and Ghanaian-college students: (*Approx. Chi-Square* = 1407.772; *df* = 378; *sig.* 0.000) and the Kaiser-Meyer-Olkin (KMO) measure of Sampling Adequacy index (value of 0.838: US-college students; value of 0.741: Ghanaian-college students) confirmed the appropriateness of the data for exploratory factor analysis (EFA). The results identified 4 factors extracted for the US-college cohort (factor 1 = 9 items,  $\alpha = 0.831$ ; factor 2 = 4 items,  $\alpha = 0.805$ ; factor 3 = 4 items,  $\alpha = 0.791$ ; factor 4 = 2 items,  $\alpha = 0.790$ ) while 3 factors were extracted for Ghanaian-college student group (factor 1 = 6 items,  $\alpha = 0.774$ ; factor 2 = 4 items,  $\alpha = 0.713$ ; factor 3 = 2 items,  $\alpha = 0.652$ ). The reliability Coefficients for the 28 items is high, at 0.859 (US-college student cohort) and 0.782 for 28 items in the Ghanaian student group. Following examination of the EFA results and analysis of the reliability and conceptual coherency of the identified factors, it is suggested that for each consumer group, the factors, tentatively, represent potentially robust determinant factors underpinning US-college and Ghanaian-college consumers' perceptions of advertising-in-general. Individual factors were named using an item or description judged to have strong conceptual relation with the rest of the items (Parasuraman, Zeithaml, and Berry, 1988). What is common to both markets is that college students consider advertising as an avenue for informing and helping them to know what is in fashion, and what they should buy if they are interested in keeping a good social image. Similarly, both the US and Ghanaian cohorts agree that advertising has a materialistic element that compels buyers to own things they probably don't need. In addition, there is a consensus among the two groups that advertising affects consumer perceptions that compel consumers to desire a product or service. However, differences exist among the cohorts in the two cultures. While the US college cohort agrees that advertising is pleasurable and makes them feel good, this factor failed to reach the level of reliability using data from the Ghanaian cohort. While this might be a driver of advertising in all markets, it is probably less important in a developing country context such as Ghana.

The findings reveal that the key research questions posed for the study are answered, albeit a few minor differences are found. These minor differences pertain to, for example, four factors perceived by US-college students relative to three factors perceived by Ghanaian-college students. To that extent, one can assert that comparing US-college students with Ghanaian-college students, some minor but significant differences exist in the perceptions of advertising-in-general. Other differences with regard the items that contribute more to the factors exist. Regarding advertising being pleasurable (factor 1 in Ghanaian model and 4 in the US model), Q3B is most important in the Ghanaian model. However, Q3A is the most important for the US cohort. Ghanaian marketers should invest more in advertisements that make consumers *feel* good rather than those that make them *think* more about the product. The converse is true for the US, where *thinking* trumps *feelings* for the advertisement. Also, regarding "advertising affects our perception", Q8A—paying close attention—is significant in the US cohort, however, this is not significant in the Ghanaian model, where wanting to find out more is the sole significant variable. Clearly, attitude toward advertising theory (Pollay and Mittal, 1993) has application to college student cohorts in differing socio-economic environments but there are similarities and differences that need to be considered when formulating advertising strategies in different markets that contributes to consumption. This exploratory study contributes to our understanding of attitudes toward advertising-in-general of the US-college and Ghanaian-college students. The results indicate important distinguishing characteristics between the two cohorts. Like many studies (Gao, Zhang, and Li, 2014), the



study shows that although theories are generalizable, nuanced differences exist as they are tested across cultures. The implications of the study for both academics and managers are intriguing.

For theoretical implications, the minor differences can generally be attributable to the continuous spreading out of US-style consumer culture throughout the world (Jin & Lutz, 2013), reflecting opportunities and constraints of modernity (Zukin and Maguire, 2004). In part, the study adds to the Global Consumer Culture Theory (GCCT) (Arnould and Thompson, 2002) and Global Consumer Culture Positioning (GCCP) perspectives suggested by Alden, Steenkamp, and Batra (1999). Drawing on the GCCT, the GCCP argues that a global culture of consumption is emerging because of the increasing interconnectedness of various cultures. The findings show that Ghanaian-college students sampled exhibit semblance of GCC and behaviors while still characterized by local cultural norms that help form their attitude towards advertising in general and their impact on purchase intentions. For instance, individualism has overtaken the Ghanaian penchant for the community as urban dwellers give way to global consumer culture. The GCCP is currently being applied in advertising research to explore the degree to which global positioning (vs. local or foreign) works in cross-national advertising (see Ford, Mueller, and Taylor, 2011). This study adds to the empirical research in this area from an under-researched part of the world.

## REFERENCES

- Alden, D. L., Steenkamp, J. B. E., & Batra, R. (1999), "Brand positioning through advertising in Asia, North America, and Europe: The role of global consumer culture," *Journal of Marketing*, 63(1), 75-87.
- Arnould, E. J. & Thompson, C. J. (2005), "Consumer culture theory (CCT): Twenty years of research," *Journal of Consumer Research*, 31(1), 868-82.
- Bauer, R. A. & Greyser, S. A. (1968), "*Advertising in America: The Consumer View*," Boston, MA: Harvard University Graduate School of Business Administration, Division of Research.
- Blankson, C. (2017), "African immigrant consumers' attitude towards advertising-in-general and impact on buying decisions," Academy of Marketing Science (AMS) World Marketing Congress, University of Canterbury, Christchurch, New Zealand, June 27-July 1.
- Cheng, J. M. S., Blankson, C., Wang, E. S. T., & Chen, L. S. L. (2009), "Consumer attitudes and interactive digital advertising," *International Journal of Advertising*, 28(3), 501-525.
- Ford, J. B, Mueller, B. & Taylor, C. R. (2011), "The tension between strategy and execution: challenges for international advertising research", *Journal of Advertising Research* 51(1), 27-41.
- Gao, Z., Zhang, H., & Li, S. F. (2014), "Consumer attitudes toward advertising in the digital age: A China-United States comparative study," *Journal of Current Issues & Research in Advertising*, 35(1), 12-28.

- Gbadamosi, A., Hinson, R. E. Tukamushaba, E. K. & Ingunjiri, I. (2012), "Children's attitudinal reactions to TV advertisements: The African experience," *International Journal of Market Research*, 54(4), 543-566
- Korgaonkar, P., Silverblatt, R. & O'Leary, B. (2001), "Web advertising and Hispanics," *Journal of Consumer Marketing*, 18(2), 134-152.

## **A CROSS-NATIONAL STUDY OF THE CONSUMPTION OF CREDIT CARDS**

**Outi Katariina Juusola, Ajman University, United Arab Emirates**

**Kwabena G. Boakye, Georgia Southern University, United States**

**Charles Blankson, University of North Texas, United States**

**Guangming Cao, Ajman University, United Arab Emirates**

---

### **EXTENDED ABSTRACT**

The nature of credit card industry makes it a truly global service that is conveniently used for payment in different currencies across various global markets. In their drive to establish a better relationship with their consumers/customers, banks constantly seek out ways to differentiate their offerings by developing unique and more appropriate services for their target audiences. The changes in today's banking industry, worldwide, are creating enormous opportunities for credit card brands due to the size of the market in the plastic card market. The average American owns three credit cards and more than half (i.e., 51%) credit card holders have increased their credit card balance as a consequence of the Covid-19 pandemic (<https://fortunly.com/statistics>). In France, the value of credit card payments increased during 2014-2021. Specifically, in 2014, the value of payments amounted to 5.5 billion Euros rising to 32.5 billion Euros in 2018 ([www.statista.com](http://www.statista.com)). In 2020, the value of credit card spending in China amounted to 7.91 trillion Yuan ([www.statista.com](http://www.statista.com)). Brazil is equally a huge card market with 5.9 billion credit card transactions in 2016, an increase of 6% relative to 2015. The number and value of credit card transactions per month in South Africa continue to rise amounting to R29 billion in June 2018 – at an average of R552.00 a transaction ([www.Southafricanmi.com/sa-credit-card](http://www.Southafricanmi.com/sa-credit-card)).

This phenomenon of increasing growth in the credit card industry and consumers/customers having multiple and simultaneous relationships with different card firms present a challenge for understanding the relationships and in establishing consumer loyalty. A positive outcome will be a reduction in switching costs between different cards and an increase in loyalty anticipated from consumers/customers. Further, across the world, consumers/customers hold multiple cards and likely receive targeted offers from different issuers, making the consumer/customer aware of competing offers, thereby increasing sensitivity to card pricing strategies (Lam et al., 2009). This is obviously a dilemma for credit card researchers and practitioners. To that end, we concur with Kara et al.'s (1996) and Blankson's (2008) claim that credit card brands are now sufficiently important to deserve continuous research effort.

Previous studies have suggested that there are certain differences in credit card possession and usage across countries. For example, in the United States consumer households typically have eight different credit cards on average (Scott, 2007). American credit card consumers/customers are motivated to acquire and heavily use credit cards in order to build credit rating and to benefit from valuable rewards from credit card firms (Payne et al., 2019). In contrast, in China, the use of credit cards is very different. Arora (2005) describes how credit cards are a rather recent phenomenon in China and used comparatively less than in the United States. The Chinese consumer/customer culture is more inclined towards saving rather than

purchasing offerings on credit (Liu & Brock, 2009). While the reasons to possess and use a credit card are presumably different across cultures, still, there is less knowledge as to whether there are universal processes in consumers'/customers' credit card possession and usage or whether it is more culture-specific (Santos et al., 2022; Blankson and Kalafatis, 2007). One believes that more cross-national studies are needed to understand whether common factors can explain credit card possession in different countries and what kind of attitudes guide consumer/customer behavior in their credit card usage. Our study employs the investment model theory (Rusbult, 1980) as a theoretical framework in a cross-national context to address the factors that motivate consumers to possess and use credit cards. The key research questions are:

1. What are the key factors that affect consumers' credit card choice and usage decisions?
2. What effect does the feeling of investing time and effort impact the possession of a credit card?

We first identify consumers'/customers' motivations for possessing a credit card (i.e., decision criteria when evaluating and/or choosing) credit card brands. We then explore the suitability of the investment model theory to explain the motivations. Our empirical study focuses on five countries: the USA, China, France, South Africa and Brazil.

**Research Method:** We adapted a cross-sectional survey instrument from Blankson (2008) and Blankson, Paswan, and Boakye (2012). We collected data from five countries, namely, United States, China, Brazil, South Africa, and France. Using the back-translation approach, the questionnaire was translated into Chinese, Portuguese and French for the China, Brazil and France populations, respectively. Survey was administered electronically to a panel of consumers by a data collection company (Wenjuan.com) for a fee. Data were collected over a period of two months. In all, a total of 736 responses were received (i.e., 136 responses from the US and 150 responses, each, from the remaining countries). We compared sample characteristics among the five countries through non-parametric tests (using Kruskal-Wallis test). Our results showed differences in age, gender, education and the number of times a credit card is used to purchase an offering.

**Discussion and Conclusion:** This study examined customer's possession of and usage of credit cards. In addition, this study examined the motivations behind customers' affinity with credit cards from a firm. We do so by operationalizing the investment model in a cross-national context to build and test a service relationship theoretical model that explains the customer decision to possess a credit card. Specifically, we tested the effects of incentives, good customer service, satisfaction and investment size on desire to possess a credit card. Our empirical results found incentives to have a significant and positive association with satisfaction. This result corroborates findings of prior studies (Jalbert et al., 2010; Foscht et al., 2010). When customers recognize incentives and financial rewards and benefits they derive from possessing a credit, it increases their satisfaction levels. As a result, they become attached to the firm, forming a service relationship with it. Moreover, such relationships provide a platform for the firm to maximize profits and build its reputation with the customer (Hauser, Simester, and Wernerfelt, 1994). The results suggest that it is possible to possess a credit card, as a proxy to commitment, if customers are delighted and satisfied with the service offering of the financial product. Possessing a credit card depends on how one is satisfied with its offerings. Therefore, a satisfactory attitude and experience with a service offering leads to a continuous service relationship in the form of card usage. Accordingly, the results suggest that investment size enhances customers' confidence and a sense of security in possessing and using

the credit card. Therefore, a card holder is likely to be involved (i.e., emotionally attached) with advertisements leading to his/her propensity to use his/her credit card frequently.

## REFERENCES

- Blankson, C. (2008), "Measuring College Students' Choice Criteria of Credit Cards: Scale Development and Validation," *Journal of Marketing Management*, 24(3-4), 317-344.
- Blankson, C., Paswan, A. K., and Boakye, K. G. (2012), "College Students' Consumption of Credit Cards," *International Journal of Bank Marketing*, 30(7), 567-585.
- Hirschman, E. C. (1979), "Differences in Consumer Purchase Behavior by Credit Card Payment System," *Journal of Consumer Research*, 6(1), 58-66.
- Kara, A., Kaynak, E., Kucukemiroglu, O. (1996), "An Empirical Investigation of US Credit Card Users: Card Choice and Usage Behavior," *International Business Review*, 5(2), 209-230.
- Parahoo, S. K. (2012), "Credit where it is due: Drivers of Loyalty to Credit Cards," *International Journal of Bank Marketing*, 30(1), 4-19.
- Prelec, D. and Simester, D. (2001), "Always leave home without it: A Further Investigation of the Credit-Card Effect on Willingness to Pay," *Marketing Letters*, 12(1), 5-12.

**IMPACT OF JAY CUSTOMER ON FRONTLINE  
EMPLOYEES: A QUALITATIVE & QUANTITATIVE STUDY  
OF INDIAN HOSPITALITY INDUSTRY**

**Apoorva, National Institute of  
Industrial Engineering  
Ranjan Chaudhuri, Indian Institute of  
Management**

---

**ABSTRACT**

The human element is imperative factors for building service quality & competitive advantages, in every service sector. However, the operating environment of these industries is very complicated, qualitative exploration of the forms and reasons of customer misbehavior based on 114 interviews with service employees, using the combined rationales of COR & JD-R theories quantitative testing of 381 responses to explore how jay customer affect employee customer orientation and retaliation through double mediation effects of surface acting and burnout. The study assesses the differences in the responses of the airline & hotel employees and validate results and strategies adopted by employees and management.

---

**INTRODUCTION**

Dysfunctional customers are considered a challenging dilemma across diverse sectors (Fisk *et al.*, 2010). In the service industry, consumer misbehavior is considered problematic for two main reasons: the ensuing direct damage (and its causes) and supplemental adverse effects that may arise from such contagious practices (Schaefers *et al.*, 2015). In the marketing context, most practitioners and theorists have devoted considerable attention to customers' psychology related to the quality of service, loyalty, customer engagement, and customer satisfaction (Szymanski and Henard, 2001). However, not all customers are functional; some respond in an unanticipated and dysfunctional way to customer-oriented initiatives. In this regard, attention directed towards customers' intentional misbehavior has been overlooked.

The mantra 'customer is always right' can often be taken advantage of by customers, who make unusual requests from frontline personnel or mistreat them. According to Harris and Daunt (2014), customers often take advantage of their position and misuse their power, which may sometimes negatively affect organizations and their employees' dignity. Every profession has some amount of stress inherent in it for its professionals to experience while at work, but the stress caused from the customers to these service employees may sometime

leads to emotional exhaustion. Service provision is a dyadic process; it depends both on frontline employees and customers. The activities or behavior of both affect each other as they are interdependent. The dysfunctional nature can therefore be examined from the perspectives of both the actors (the customers) and the target (the frontline employees) (Fisk *et al.*, 2010). Although both perspectives help to understand the phenomenon of interest, in this research, to understand the antecedents of customer misbehavior, the researchers gathered data from customers. Further, to ascertain and understand the nature of consumer misbehavior, it is important to explore the factors that constitute it. In this context, this is the first study presenting the bibliometric and thematic analysis of the service sectors of the emerging country with special context to India.

The success of the service business depends on prompt delivery and high-quality services provided by employees, but the process of receiving service is a multifaceted one that involves both customers and service personnel. Due to their interdependence, the activities or conduct of both would affect the other. Incivility from customers can be viewed as a poor social interaction between customers and employees. This negative transaction (incivility as opposed to courtesy and respect) does not provide a return commensurate with the resources provided by employees (courtesy and respect) (time, efforts energy, and emotion). This mismatch heightens employees' perception that customers are not being treated fairly, influencing their customer-oriented behavior and resulting in punitive actions such as service sabotage, intention to quit, employee retaliation, poor service delivery.

Despite numerous studies, the analysis that focuses on the impact of Jay customers on CO behavior and employee retaliation with double mediation outcomes is unremarkable. The purpose of the study is to examine the different forms and causes of customer misconduct in the service industry. Multiple studies are conducted everywhere in the world, especially in western nations; however, only a handful are conducted in Asian nations; so, this study will examine many cultural populations inside India. The present study will attempt to compare the outcomes of the hotel and airline industries in order to determine in which sector customer rudeness has a greater influence. Lastly, the study will examine the impact of all three components of burnout (emotional exhaustion, depersonalization, and low personal accomplishment) on employee's CO behavior and employee retaliation that has not been done previously.

The remainder of this paper is structured as follows. Section 1 provides a structured overview of the existing research related to Jay customer, including various definitions and terminologies used by prior research. Section 2 begins by outlining, the different themes from 114 employees who are working in different hotels, restaurants, cafes, bars, and airports to reveal various forms of, and reasons for, customer misbehavior. Finally, in the last section the study will evaluate empirically the impact of Jay customer on CO and ER in order to validate the results of the thematic analysis.

## THEORITICAL BACKGROUND

### Jay Customer

Consumer behavior spans the vast issue of human misbehavior. To investigate the nature of customer misbehavior, researchers have used many terminologies in the literature. Researchers have utilized the following words to describe customer misbehavior in this context: "problematic customers" (Bitner et al., 1994; see also Harris and Reynold, 2004), "dysfunctional customer behavior" (Fullerton and Punj, 1997), and "jay customer" (Lovelock, 1994). Lovelock (1994) coined the term "jay customer" and characterized it as people who actively interrupt service and behave in a nasty or aggressive manner, negatively impacting both customers and personnel. Lovelock's (1994) categorization of the seven distinct sorts of jay customer is as follows: Cheater, Thief, Rule-breaker, Belligerent, Family feuder, Vandal, and Deadbeat.

Based on Lovelock's work, Harris and Reynolds (2004) proposed eight empirically proven forms of jay customer behavior within the service industry: 'compensation letter writers'; 'undesirable customers'; 'property abusers'; 'vindictive customers'; service workers'; 'oral abusers'; 'physical abusers'; and 'sexual predators'. The majority of studies says that customer misbehavior is the primary source of employee stress, leading to burnout and dissatisfaction with one's employment (Kim et al., 2009). However, there has been little research in this area, with the majority of studies aiming to differentiate the forms and effects of customer misconduct. Little study has been conducted to date on a holistic perspective of the causes of troublesome consumer behavior (Harris & Reynolds 2004).

According to Cho et al. (2013), surface acting has been considered as a part of the service employee's job. Surface acting means interacting with the customer; employees are supposed to hide their true feelings and express false feelings. As when the employees interact with the customer, surface acting takes place; it affects the employee's behavior towards co-workers and may also impact employees' customer orientation behavior, like sabotage to customers. Burnout is the leading cause of, absenteeism, and health problems among service employees and can be costly to an organization. Employees who engage in surface acting may feel exhausted (Kim et al., 2009).

Maslach's model suggested three job burnout models: emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment. The core component of job burnout is emotional exhaustion. It occurs when an employee's emotions are consumed during any interaction with others or the working environment, leaving him/her feeling exhausted afterward. Depersonalization means when employees consider others whether they are co-workers or customers, as an item rather than human beings. Diminished personal accomplishment is defined as a negative self-evaluation that causes a lack of self-determination and self-efficacy to do something, subsequently, imminent job burnout.



The literature on customer misbehavior compiled by diverse authors is presented in Table 1.

Table: 1 Contribution of some of the significant authors

Authors	Year	Contributions
Torres et al.	2017	Incivility increases the negative emotions and level of incivility among employees. Customers' uncivil behaviours include insulting comments, anger, frustration, verbal attacks, and condescending behaviour.
Hur et al.	2015	CI has a positive relationship with employees' surface acting and leads to emotional exhaustion, which negatively affects customer orientation.
Mdakane et al.	2012	The results reveal that relationship satisfaction decreases customers' desire for revenge and power has a positive influence on desire for revenge, as well as empowerment has a positive effect on direct revenge behaviors and lastly study desire for revenge has a positive influence on both direct and indirect revenge behaviors but has a greater influence on direct.
Sliter et al.	2011	Co- workers and customer incivility decreased the sales performance while increase the absenteeism among employees.
Qi et al.	2020	Mistreatment by patients affects the performance of the nurses and increase the intention to quit the job
Sommovigo et al.	2019	Presents the systematic review of customer incivility & verbal aggression & revealed that both CI and VA affect the employees well- being & job outcome.
Hu et al.	2020	Job burnout mediates the relationship between customer incivility and turnover intension. Organizational & supervisory supports buffer this relation.
Tsang et al.	2011	Determine the accepted level of jay customer as well the response to tackle such behavior and suggested training strategies for employee's enhancement.

## METHODOLOGY

### Stage 1

This section covers the thematic analysis in the context of customer misbehavior. For the thematic analysis, the study used a descriptive, qualitative design to facilitate an in-depth exploration of the respondents. The data were collected from 114 employees working different hotels, cafes, bars, restaurants, and airports of the emerging country like India. To capture the factors that facilitated customers' uncivil behavior, an online survey was used, gathering both demographic information and responses to the open-ended following question: 'What do you think about customer misbehavior in different hotels, cafes, bars and airports of emerging countries like India?' Share the incidents if you have ever come across such customers. The data were analyzed using the qualitative analysis software NVivo 12 to conduct thematic analysis.

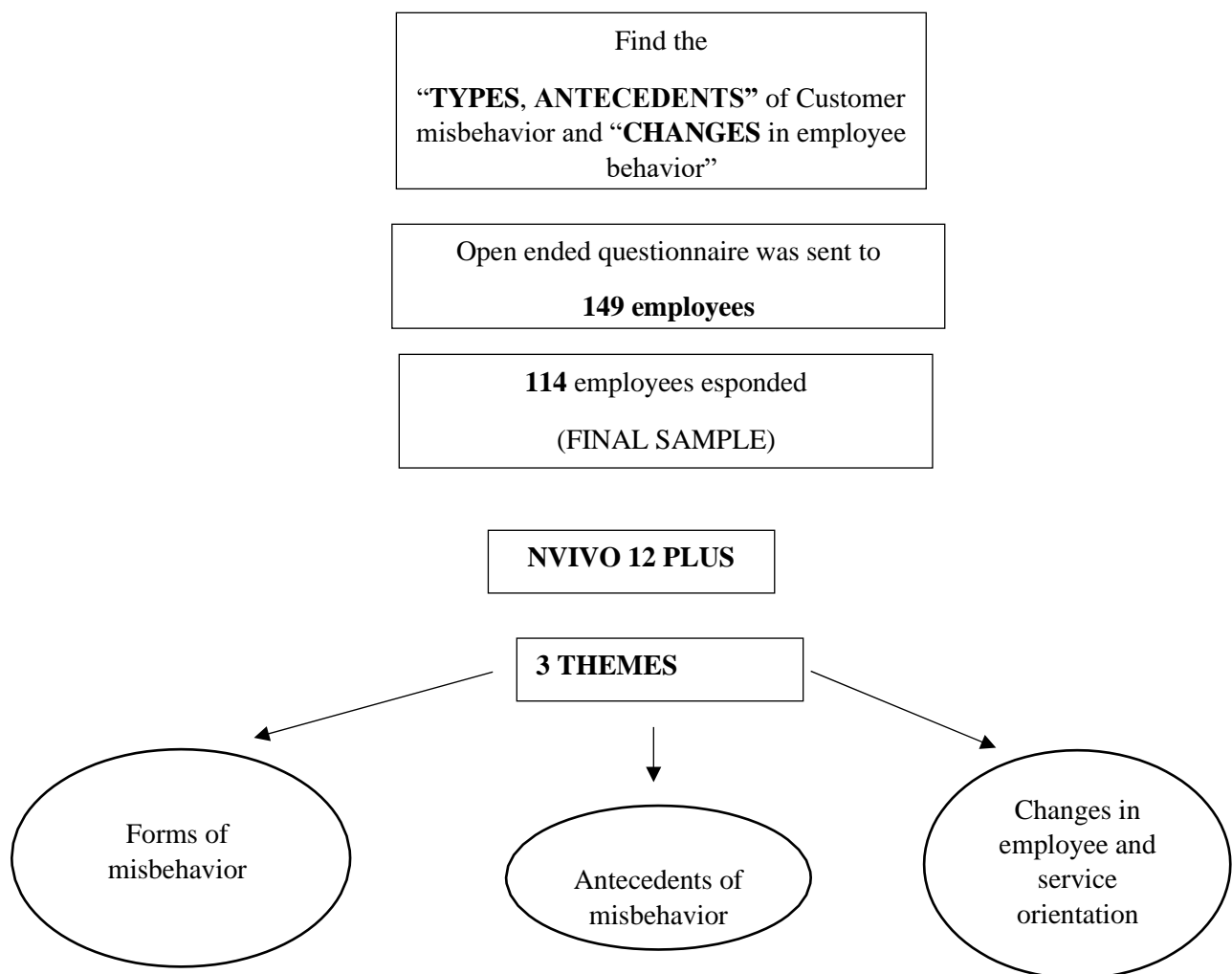
### Stage 2

The researchers conducted an online and offline study of service employees in India utilizing a larger number of respondents. Between May and June 2022, these participants were requested to complete an online survey regarding the constructs' variables, which allowed us to analyze

the effect of JC on CO and ER via the mediating effect of surface acting and burnout (emotional exhaustion, depersonalization & reduced personal accomplishment). Data was collected using the cluster sampling and networking approach, also known as the snowball sampling technique. We received a total of 381 replies, which we evaluated using the AMOS software.

### QUALITATIVE ANALYSIS AND FINDINGS (THEMATIC ANALYSIS)

This section examines the fundamental forms and antecedents of consumer misbehavior in the service business in India. This industry is distinguished by the complexity resulting from its various activities (lodging, food service). Consequently, this study covers Asian hotels, bars, cafes, restaurants, and airports for the service economy. The examination of the responses indicated three themes: "the types/ forms of customer misconduct," "the causes of such misbehavior," and "changes in the personal and professional conduct of employees and management". The proposed thematic approach is shown in Figure 1.



**Figure 1.** Proposed thematic approach

Proceedings of the Association of Collegiate Marketing Educators (2023)

Theme 1 – Forms of customer misbehavior (Table: 2)

<b>Sub-theme</b>	<b>Theme description</b>	<b>No of employees reported</b>
Oral abuse	During service encounter, most customers use abusive words or act rudely to employees for monetary benefits.	31
Sexual abuse	Customers express their sexual desire to service employees for personal gratification.	10
Compensation letter	Customer intentionally complain against service employee with no or little justification.	19
Physical abusers	Customers physically harm the frontline employees.	10
Property damage	Customers deliberately destroy the property of the organization.	12
Unusual demands	Customers make unreasonable demands that are not in the control of employees	32

Theme 2 – Antecedents of customer misbehavior (Table:3)

<b>Sub-themes</b>	<b>Theme descriptions</b>	<b>No of employees reported</b>
Service orientation	Customer is uncivil because the service was not satisfactory.	63
Entitlement	Customer misbehaved because the organization did not offer special treatment.	8
Personality	Customer has the personality of behaving in an uncivil manner.	7
Environmental stressor	Customers misbehaved because environmental factors elicit negative emotions.	6
Past experiences	Customer is uncivil because of bad past experiences.	14
Peer pressure	Customers misbehave because of peer pressure.	4
Alcohol consumption	Customers misbehave because of consuming too much alcohol.	10
Gender	Customers misbehave because of the employee's gender.	9

Theme 3 – Impact on employees (Table: 4)

Sub-theme	Theme Description	No of employees reported
Reduce service recovery performance	Recovering the service reduces employees' morale.	8
Surface acting	Employees show fake emotions when dealing with customer.	13
Retaliation	Employees try to take revenge on rude customers.	6
Turnover rate	Employees think of quitting the job and searching for alternative lines of work.	8
Compensation	If the customer is not happy with the service, the management offers them some type of compensation.	43
Fines	Management imposes fines on the customer that damages the property.	29
Burnout	Employees feel burned-out from their work.	7

## Stage 2: EMPIRICAL RESEARCH

The qualitative analysis led the researchers to the conclusion that there is a connection between the Jay customer, surface acting, burnout, customer orientation, and employee retaliation among frontline workers. Notably, no research has explored the impact of the Jay customer on customer orientation and employee's retaliation through the double mediating role of surface acting and burnout; furthermore, no research has been conducted from the perspective of frontline personnel, particularly in India. Therefore, the second stage of the present study examined whether or not these findings can be measured. Similar to Stage 1, the researchers examined the direct and indirect connections between Jay customers, employee retaliation, and customer orientation. The current study tries to fulfil the following objectives.

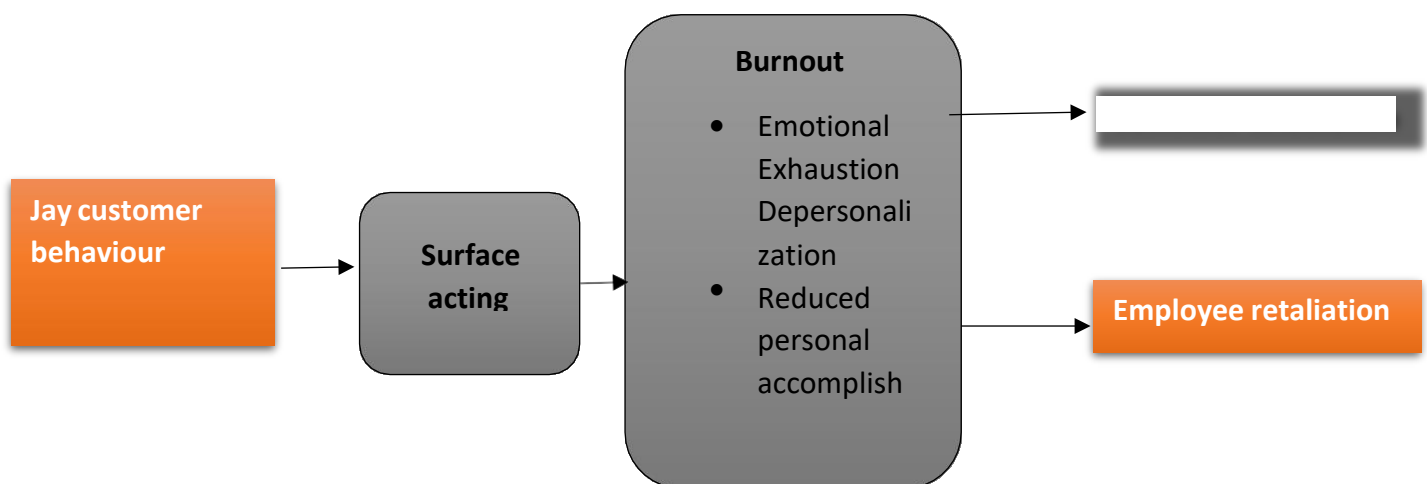
### OBJECTIVES

1. To find the different forms and antecedents of Jay customer.
2. To examine how jay customer affects service employee's emotional labor, i.e., surface acting.
3. To assess the way how surface acting leads to employee's burnout (and its components).

4. To study the overall mediation role of burnout and surface acting among jay customer and employee CO behavior and employee retaliation.

## PROPOSED CONCEPTUAL FRAMEWORK

Based on the literature review, the researchers developed the hypotheses, after which the conceptual framework was developed (Figure 2).



**Figure:2 Conceptual framework**

## HYPOTHESES DEVELOPMENT

1. According to AET, an employee's subjective emotional reactions to an event (customer misbehavior) at work determine the employee's job behavior (Weiss and Cropanzano, 1996). The service with a smile regulation require employees to control their emotions during service interactions. The more frequently employees encounter improper behavior from consumers, the more likely they are to engage in surface acting, which consists of superficially meeting job standards. Thus, researchers can predict that employees who encounter improper client behavior will engage in surface acting.

H1. JC is positively related to SA.

2. The relationship between surface acting and employee job strain is strong. Regulation of expression at work without altering the feelings (false emotions) is damaging to an employee's sense of self-worth (Balaji et al., 2020). Surface acting results in depletion of resources, burnout, emotional exhaustion, reduced personal accomplishment and depersonalization. According to the cognitive dissonance theory, surface acting causes emotional dissonance, which may be a precursor to burnout (and its constituents). Thus, researchers propose that

surface acting arising from unruly clients can promote employee burnout as a result of emotional dissonance.

H2.a: SA is positively related to EE.

H2.b: SA is positively related to depersonalization.

H2.c: SA is positively related to RPA.

3. The majority of previous research has demonstrated that a high level of (burnout and its component) has negative effects on both the organization and the output of its employees, such as decreased employee performance, low job satisfaction, increased intention to leave, and low organizational commitment. According to the COR theory, it is stressful for an employee to encounter a threat such as the actual or perceived loss of their resources or an inadequate return on those resources. Thus, employees who experience burnout due to a customer's inappropriate behavior are less inclined to engage in CO behavior. Retaliation is a relatively common response to customer aggression. Retaliation toward the customer may be viewed in relation to counterproductive work behavior. (Daunt and Harris 2014; Sliter and Jones 2016;)

Counterproductive work behavior includes any intentional employee behavior that is contrary to the organization's interests. Some researchers have discussed counterproductive work behavior as a mechanism for releasing negative emotion.

H3.a: EE is negatively related to CO, & positively related to ER.

H3.b: Depersonalization is negatively related to CO & positively related to ER.

H3.c: RPA is negatively related to CO & positively to ER.

## HYPOTHESES TESTING

There is significant relationship between jay customer and customer orientation ( $b = -.124$ ;  $p < .05$ ), and employee retaliation ( $b = .101$ ;  $p < .05$ ), which prove that our hypotheses i.e. jay has a positive relation with employee retaliation and a negative association with customer orientation. The next hypothesis which says that SA is positively related to RPA as ( $b = .169$ ;  $p < .05$ ), to depersonalization ( $b = .121$ ;  $p < .05$ ) and emotional exhaustion ( $b = .110$ ;  $p < .05$ ). Again, there is negative relation between reduced personal accomplishment and customer orientation with ( $b = -.211$ ;  $p < .05$ ) and positive relation with employee retaliation ( $b = .191$ ;  $p < .05$ ). The further results revealed that depersonalization is negatively related with customer orientation as ( $b = -.182$ ;  $p < .05$ ) and positive with employee retaliation ( $b = .142$ ;  $p < .05$ ) and lastly there is positive relation between emotional exhaustion and employee retaliation ( $b = .237$ ;  $p < .05$ ) negative with customer orientation ( $b = -.345$ ;  $p < .05$ ).

Hypothesized relationship			Estimate	S.E.	C.R.	P
Surface_acting	<--	Jay_customer	.102	.064	3.895	***
Reduced_personal_accomplishment	<--	Surface_acting	.169	.050	3.740	*
depersonalization	<--	Surface_acting	.121	.032	5.812	**
emotional_exhaustion	<--	Surfaceacting	.110	.042	.742	*
Customer_orientation	<--	Jay_customer	-.124	.031	6.790	***
Hypothesized relationship			Estimate	S.E.	C.R.	P
Employee_retaliation	<--	Jay_customer	.101	.020	.932	***
Customer_orientation	<--	Reduced_personal_accomplishment	-.211	.025	5.743	*

Customer_orientation	<--	depersonalization	-.182	.041	5.914	*
Employee_retaliation	<--	emotional_exhaustion	.237	.019	.790	*
Customer_orientation	<--	emotional_exhaustion	-.345	.031	.780	**
Employee_retaliation	<--	depersonalization	.142	.026	1.782	**
Employee_retaliation	<--	Reduced_personal_accomplishment	.191	.016	12.572	**

Table:5 Hypothesized relationship

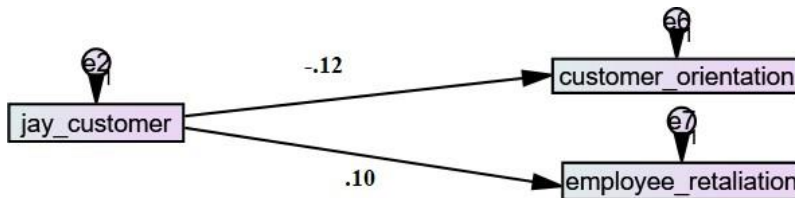


Figure: 3 Direct relationship

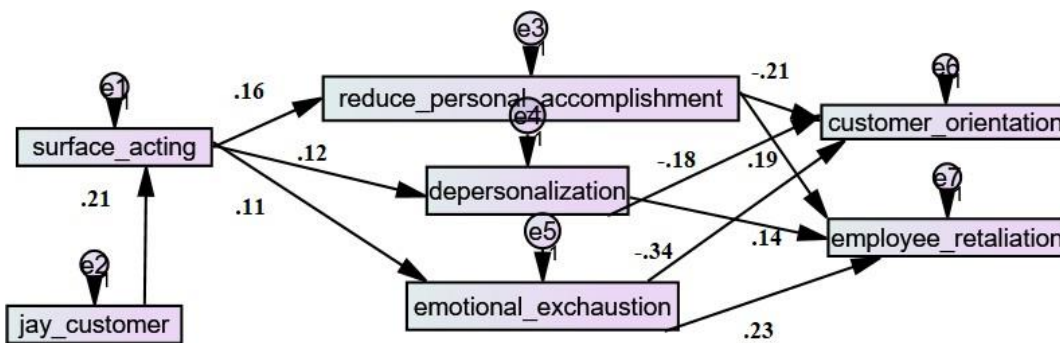


Figure:4 Mediating relationship

### MEDIATION EFFECT

Mediation analysis explains how and why there is a relationship between independent variable and dependent variable (Preacher and Kelley, 2011). Mediation has been done by applying model 4 of Andrew Hayes with the help of bootstrapping test. According to Hayes 2009 it is not necessary to have the direct effect of independent variable on dependent. In the absence of direct effect, the indirect effect is the total effect. It is possible for M (mediating variable) to be causally between X (independent) and Y (dependent) even if X and Y aren't associated (Hayes 2009).

Overall mediation effect of surface acting, EE, RPA & D between Jay customer and CO, ITQ & ER

	Direct effect	Indirect effect	Total effect	T value	P value
<b>JC--&gt; CO</b>	-.12			7.2897	***
JC--> SA-->RPA-->CO		-.008	-.134	9.4563	*
JC--> SA-->D-->CO		-.002		9.8754	**
JC-->SA-->EE-->CO		-.004		1.9745	*
<b>JC--&gt;ER</b>	.10				
JC-->SA-->RPA-->ER		.007	.114	5.8712	**
JC-->SA-->D-->ER		.004		4.7651	*
JC-->SA-->EE-->ER		.003			**

Table: 6 mediation effect

## THE COMPARATIVE ANALYSIS OF INDIAN HOTEL AND AIRLINE INDUSTRIES

A paired t-test (also known as a correlated or dependent test) is use for the purpose of comparing 2 population means where we are made available with two samples. Of the two samples, observations in one sample can be paired with observations in the other sample.

Jay Customer

### Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 JCH	4.7454	197	1.02846	.05269
JCA	3.1429	184	1.23144	.06309

Table: 7 mean table

A paired t-test was run on Z scores to determine if there was difference of JC in hotel and airline industry. The study found that there is significant difference of jay customer behavior among hotel and airline industry. It has been found that the employees working in the hotel industry are more exposed to customer misbehavior than that of airline industry. Likewise, there researchers have analyzed the difference of CO, ER and the values of the T test are summarized in Table:9



Table:8

**Paired Samples Test**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 JCH JCA	.39748	1.63140	.08358	.56182	.23315	4.756	380	.000

Table: 9 Summarization of the results of T-TEST

Variable	Airline	Hotel	P value
JC	4.74	3.14	.000
CO	3.14	2.96	.211
ER	4.12	3.32	.000

From the above analysis, we can deduce that hotel employees have encountered different types of customer misbehavior than airline employees, and that their CO, and ER behavior has been more affected by the misbehavior than airline employees', but both service industries have experienced jay customer behavior.

**VALIDIFICATION OF THE RESULTS**

Interview with the employees and manager to validate the results of the study

To validate the survey's findings, we conducted an in-depth, one-on-one interview study with frontline staff and managers. The hospitality industry, specifically the hotel, restaurants, cafes, bars and airline industries, served as the context for this study. To cross-validate the results, organizations were selected at random from a directory of past response data. Individual managers and employees were selected at random following the initial telephone contact with corporate and headquarters offices. We enlisted 3 managers and 9 staff members from a variety of sectors mentioned above, to validate the findings, implications, and suggestions of the study. Managers' interviews were on the impact of customer conduct on their role and their team, as well as any recommendations, whereas front-line employees' interviews centered on their perceptions of customer misbehavior and its effect on themselves. According to all 12 frontline employees, customer misconduct was so prevalent that non-deviant customer conduct was abnormal and uncommon.

Despite the fact that the questioned managers reported reduced customer contact, they all stated that customer misbehavior affected both their personal and professional lives. The majority of frontline employees cited jay customers as a key source of emotional exhaustion, hence diminishing their service performance. Three out of every two part-time workers and students in their training periods reported that they had encountered such consumers so regularly that they had considered leaving their positions. The poor behavior of customers

weakened their

emotional fortitude and negatively affected not only their disposition but also their professional ambitions.

After examining the impact of customer misbehavior on frontline personnel (table:)and the issues it poses for employees, the study goes on to address the research's conclusions as well as the management's tactics or recommendations for reducing the impact of customer misconduct. (Table)

Table :10 Details of interviewees

<b>Respondents</b>	<b>Gender</b>	<b>Designation</b>	<b>Industry</b>
<b>1</b>	<b>M</b>	<b>Frontline Employee</b>	<b>Hotel</b>
<b>2</b>	<b>F</b>	<b>Receptionist</b>	<b>Restaurant</b>
<b>3</b>	<b>M</b>	<b>Manager</b>	<b>Banquet</b>
<b>4</b>	<b>M</b>	<b>Team head</b>	<b>Café</b>
<b>5</b>	<b>M</b>	<b>Employee</b>	<b>Lounge</b>
<b>6</b>	<b>M</b>	<b>Manager</b>	<b>Airline</b>
<b>7</b>	<b>F</b>	<b>Housekeeping manager</b>	<b>Hotel</b>
<b>8</b>	<b>F</b>	<b>Ground staff</b>	<b>Airline</b>
<b>9</b>	<b>M</b>	<b>Manager</b>	<b>Restaurant</b>
<b>10</b>	<b>M</b>	<b>Frontline employee</b>	<b>Restaurant</b>
<b>11</b>	<b>M</b>	<b>Bar tender</b>	<b>Bar</b>
<b>12</b>	<b>F</b>	<b>Bar tender</b>	<b>Bar</b>

Table: 11 Impact of Jay customer behaviour on frontline employees (results validated through interviews)

<b>Respondents</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Exhausted</b>	*	*	*	*	*	*	*	*
<b>Leave the organisation</b>	*				*	*	*	*
<b>Change their career intention</b>	*			*		*		*
<b>Reduce service performance</b>	*	*				*		*

<b>Try to take revenge</b>	*				*	*		*
<b>Fake the emotions</b>	*	*	*		*	*	*	*
<b>Feel depersonalized</b>	*			*		*		*
<b>Support of management</b>	*	*	*	*			*	*

Table:12 Strategies adopted by management and employees

<b>Strategies</b>		
<b>Employees</b>	Pre incident	Mental preparation for work, stress relief through substance abuse, altering one’s clothing.
	During service the	Ignoring the customer, bribing the customer, using emotional labor
	Post incident	Individual isolation, social exchange, physical release of emotion, stress relief through substance abuse, revenge
<b>Management</b>	Other strategies	Reward, remuneration, promotion, training & workshops, selective recruitment, formal and informal counseling

## REFLECTION AND IMPLICATIONS

As previously indicated, the concept of customerimpoliteness was initially articulated in the literature in 1994 under the title "jay customer" (Lovelock, 1994), and it currently mostly affects frontline workers in the hospitality industry. This study utilized NVivo to do a theme analysis. 114 employees were asked to recall instances in which they have come across jay customers during service encounter. Using NVivo, three themes were created from the data analysis: "the forms of customer misbehavior," "the antecedents of such misbehavior," and "the changes in employee behavior and service orientation." The research then utilized structural equation modelling to examine the hypothesis. All predictions were supported, indicating that a bad customer has a negative effect on customer orientation and a positive effect on employee retaliation, i.e., the more misbehavior employees face, the more they exhibit low CO behavior and a strong propensity to exact revenge. In addition, it has been discovered that both surface acting and burnout have a mediating influence.

The research helps the Asian service firms to understand these different forms of uncivil behavior by customers. The study suggests that service organizations of the emerging country like India should develop a comfortable and flexible work environment and system that identifies customers' uncivil behavior and excludes them from the service scape. The study also recommends that management should give employees autonomy to tackle situations with these types of customers. The organization should invest in training and development, so that employees may gain the appropriate practical knowledge and skills that enable them to achieve the organization's goals. Thus, the organization will understand whether investing in training and development helps them to retain their employees and to tackle the uncivil behavior of the customers. Managers should try to provide support and maintain regular communication with employees to help them feel motivated.

Current scholarly study focuses specifically on jay customer behavior and its repercussions, as well as the crucial role of organizational support in reducing these behaviors (Tan et al., 2020). Cohen and Wills (1985) discovered that the support individuals receive from businesses is a helpful buffer in a difficult work environment, as employees who feel their employers support them are less likely to be influenced by stressful workplace conditions. Existing research suggests that in response to an unpleasant encounter, service industry personnel may engage in inappropriate behavior or retaliatory activities (e.g., Hu et al., 2020). Therefore, managers should regularly watch the impact of rude customers on employees and be proactive in addressing any potential negative responses.

Consequently, the literature shows that managers should provide psychological support, advice, and assistance to service sector personnel in order to overcome the repercussions of incivility (Kim & Qu, 2019). In addition, before placing personnel in various service jobs, firms should give them with substantial training. In addition, they should ensure that, upon successful completion of training, staff have developed the autonomy to effectively deal with client incivility (Kim & Qu, 2019) and to identify various sorts of aggressive behavior.

To assist employees, feel motivated, managers should provide support and establish constant communication with them. As customer incivility may be the result of a dysfunctional customer or a negative consequence of the poor service they receive, organizations may be able to manage such events more effectively if they recognize and classify customer incivility as either a consequence of action, a habitually intended action, or the perceived intention of a situation. This would enable managers to determine the root reason of each instance of customer impoliteness and employ the most effective management strategies.

## LIMITATION AND FUTURE DIRECTIONS

Despite its theoretical and practical ramifications, the research contains a number of shortcomings. It has been established that the resilience and emotional intelligence of FSEs mitigate the detrimental impacts of consumer incivility. It would be insufficient to appreciate the role of interpersonal forces without taking these moderators into account. Future research should investigate moderator variables such as emotional intelligence, resiliency, and social interaction. Second, our sample consisted

completely of Indian FSEs despite being recruited from a variety of service companies. Thus, our findings may have been impacted by India's cultural characteristics. Future study could address the dearth of comprehensive theories on various facets of customer rudeness, the inadequacy of assessing the reliability and validity of customer rudeness, and the absence of comparison studies of various nations and industries.

In conclusion, this study provided a conceptual framework for future researchers to examine. Future academics can use terms such as customer incivility, customer misbehavior, dysfunctional customer, aggressive customer, aberrant customer, and troublesome customer to define the willful misbehavior of the customer. Incivility in the workplace or among co-workers, which might contribute to surface acting, diminished self-esteem, and increased negative affectivity, could also be considered in future research. These variables may function as mediators. Future studies could include as dependent variables change in career ambition, intention to quit, service sabotage, extra role performance, job crafting behavior, and work performance. Lastly, the influence of incivility on these behavioral outcomes might be moderated by perceived organizational support, employee resilience, organizational commitment, and social interaction.

We hope that our study voices the absolute necessity to eliminate customer incivility towards service sector employees and inspire both scholars and practitioners to: (i) shed light on the research gaps we identified; (ii) build on the existing literature we map to design meaningful research to further investigate this phenomenon; and (iii) develop theoretical frameworks, strategies, and effective mechanisms to manage customer incivility at work. This study and future research can thus protect employees and ensure their well-being.

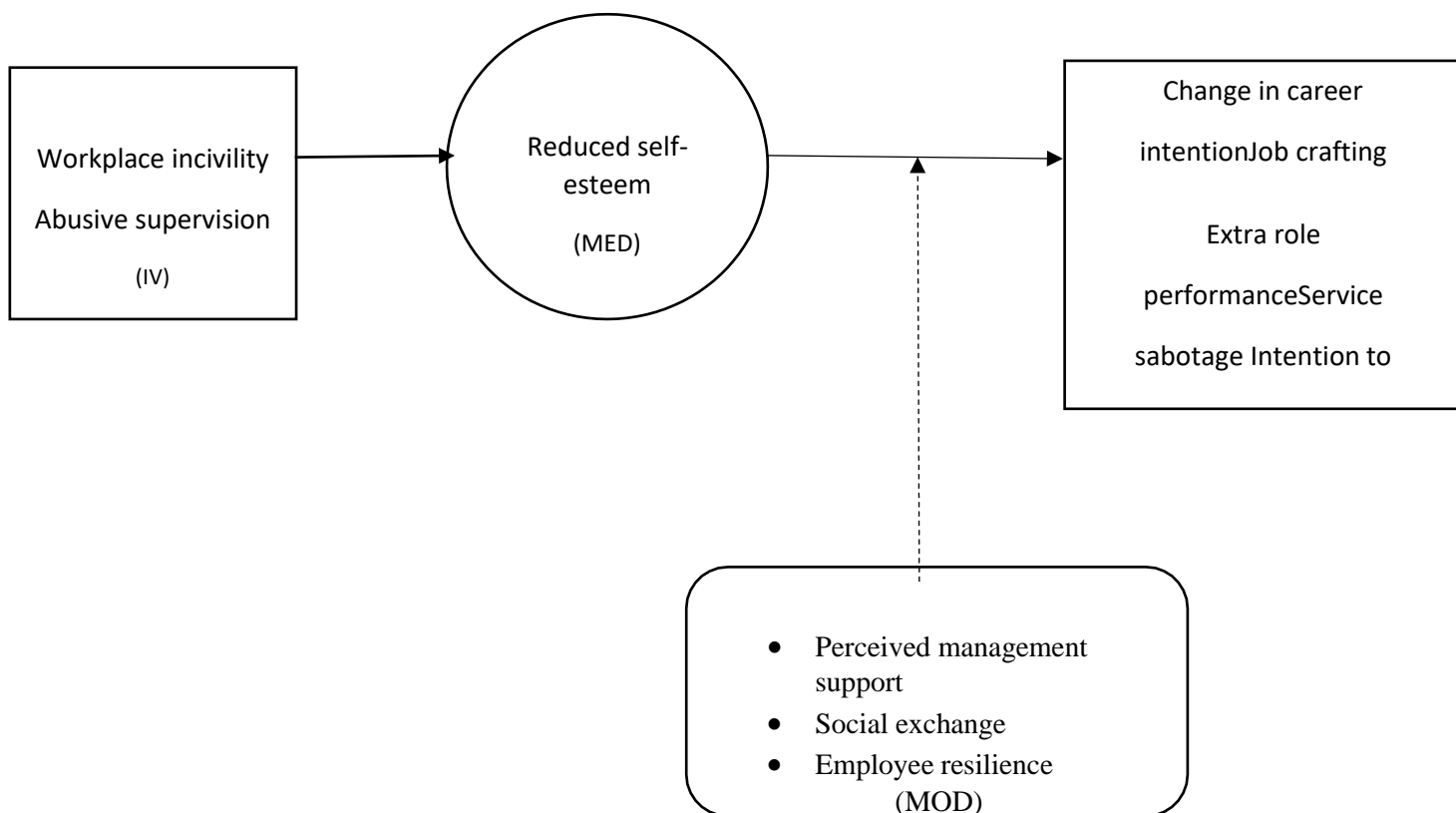


Figure: 5 Proposed model for future

NOTE: IV- Independent variable, MED- Mediating variable, DV- dependent variable & MOD- moderating variable.

## REFERENCES

- Balaji, M. S., Yangyang Jiang, Gurbir Singh, and Subhash Jha (2020), "Letting go or getting back: How organization culture shapes frontline employee response to customer incivility," *Journal of Business Research*, 111, 1–11.
- Berry, Leonard L. (1995), "Relationship Marketing of Services—Growing Interest, Emerging Perspectives," *Journal of the Academy of Marketing Science*, 23 (4), 236–45.
- Bitner, M.J. (1990) Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses. *Journal of Marketing*, 54, 69-82
- Brady, Michael and J. Cronin. Jr (2001), "Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach," *Journal of Marketing - J MARKETING*, 65, 34–49.
- Cho, Yoon-Na, Brian N. Rutherford, and JungKun Park (2013), "Emotional labor's impact in a retail environment," *Journal of Business Research*, 66 (11), 2338–45.
- Christofi, M., D. Vrontis, E. Leonidou, and A. Thrassou (2018), "Customer engagement through choice in cause-related marketing: A potential for global competitiveness," *International Marketing Review*, 37 (4), 621–50.
- Daunt, Kate and Lloyd Harris (2014), "Linking employee and customer misbehavior: The moderating role of past misdemeanours," *Journal of Marketing Management*, 30.
- Fisk, Raymond, Stephen Grove, Lloyd Harris, Dominique Greer, Kate Daunt, Rebekah Russell-Bennett, and Jochen Wirtz (2010), "Customers behaving badly: A state of the art review, research agenda and implications for practitioners," *Journal of Services Marketing*, 24, 417–29.
- Fullerton, Ronald A. and Girish N. Punj (1997), "Can Consumer Misbehavior Be Controlled? a Critical Analysis of Two Major Control Techniques,".
- Grandey, A.A, Dickter, D.N., Sin, H.-P., (2004), "The customer is not always right: customer aggression and emotion regulation of service employees," *Journal of Organisation Behaviour*, 25, 397–418. <https://doi.org/10.1002/job.252>.
- Harris, Lloyd and Kate Daunt (2003), "The Consequences of Dysfunctional Customer Behavior," *Journal of Service Research*, 6.
- Harris, Lloyd and Kate Daunt (2004), "Jaycustomer behavior: An exploration of types and motives in the hospitality industry," *Journal of Services Marketing*, 18, 339–57.
- Harris, Lloyd and Kate Daunt (2013), "Managing customer misbehavior: Challenges and strategies," *Journal of Services Marketing*, 27, 281–93.
- Hu, Hsin-Hui Sunny, Herman Lai, and Brian King (2020), "Restaurant Employee Service Sabotage and Customer Deviant Behaviors: The Moderating Role of Corporate Reputation," *Journal of Hospitality & Tourism Research*, 44, 109634802093633.

- Hayes, Andrew F. (2009), "Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium," *Communication Monographs*, 76 (4), 408–20.
- Kim, Haemi and Hailin Qu (2019), "Employees' burnout and emotional intelligence as mediator and moderator in the negative spiral of incivility," *International Journal of Contemporary Hospitality Management*, 31 (3), 1412–31.
- Lovelock, Christopher (1994), "Product Plus: How Product + Service = Competitive Advantage", McGraw-Hill, New York.
- Mdakane, Siphon, A. Muhia, T. Rajna, and Dr Elsamari Botha (2012), "Customer relationship satisfaction and revenge behaviors: Examining the effects of power," *African Journal of Business Management*, 6, 10445–57.
- Qi, Lei, Xin Wei, Yuhua Li, Bing Liu, and Zikun Xu (2020), "The Influence of Mistreatment by Patients on Job Satisfaction and Turnover Intention among Chinese Nurses: A Three-Wave Survey," *International Journal of Environmental Research and Public Health*, 17 (4), E1256.
- Reynolds, Kate L. and Lloyd C. Harris (2009), "Dysfunctional Customer Behavior Severity: An Empirical Examination," *Journal of Retailing, Consumer Behavior and Retailing*, 85 (3), 321–35.
- Schaefer, Tobias, Stephanie Lawson, and Monika Kukar-Kinney (2015), "How the burdens of ownership promote consumer usage of access-based services," *Marketing Letters*, 27
- Sliter, Michael, Steve Jex, Katherine Wolford, and Joanne McInnerney (2010), "How rude! Emotional labor as a mediator between customer incivility and employee outcomes," *Journal of Occupational Health Psychology*, 15 (4), 468–81.
- Sliter, Michael and Morgan Jones (2016), "A qualitative and quantitative examination of the antecedents of customer incivility," *Journal of Occupational Health Psychology*, 21, 208–19.
- Sommovigo, Valentina, Ilaria Setti, Piergiorgio Argentero, and Deirdre O'Shea (2019), "The impact of customer incivility and verbal aggression on service providers: A systematic review," *Work (Reading, Mass.)*, 62 (1), 59–86.
- Szymanski, David and David Henard (2001), "Customer Satisfaction: A Meta-Analysis of the Empirical Evidence," *Journal of the Academy of Marketing Science*, 29, 16–35.
- Tan, Alice J.M., Raymond Loi, Long W. Lam, and Cheri W.C. Chow (2020), "Buffering negative impacts of jaycustomer behavior on service employees," *Journal of Services Marketing*, 34 (5), 635–50.
- Tsang, Kee Fu, Louisa Y.S. Lee, and Phoebe K.Y. Chan (2011), "Staff perceptions of jaycustomers in Hong Kong bars and nightclubs," *Journal of China Tourism Research*, 7 (3), 326–42.
- Weiss, H., Cropanzano, R., (1996), "Affective events theory: A theoretical discussion of the structure, cause and consequences of affective experiences at work," *Res. Organ. Behav.*, 18, 1–74.

Zhu, Julie Ningyi, Long Lam, and Jennifer Lai (2019), "Returning good for evil: A study of customer incivility and extra-role customer service," *International Journal of Hospitality Management*, 81, 65–72.



## **ATTRIBUTION IN THE PATH TO PURCHASE: A FRAMEWORK FOR A POST-COVID WORLD**

Judith Cardona Forney, University of North Texas  
Dee K. Knight, University of North Texas

---

### **EXTENDED ABSTRACT**

**Attribution Theory.** Attribution theory seeks to explain the cause and effect of phenomena in human situations. First conceptualized by Heider (1958), attribution was used for causal explanations by assigning internal or external causes to human behavior. Attribution is formed from the beliefs a person assigns to the cause of an event, especially when that event is negative and unexpected.

The cause of an event can be described as a broad, concrete, or specific situation (Weiner, 2018). In explaining attribution, Weiner (2018) determined that it focused on people's universal concern with explanation. Specifically, "*why a particular event, state, or outcome has come about and the consequences of phenomenal causality*" (Wiener, 2000, p. 382)

Weiner (2000) was the first to assign attribution to consumer actions. He wondered why researchers had not applied attributional thinking to consumers consumption of products. "*... consumers purchase products; these acquisitions meet with positive or negative end states; the consumer then reaches an attributional conclusion regarding why the outcome was "good" or "poor" (particularly the latter); and this conclusion surely influences their subsequent consumer related behavior*" (p. 382). He suggested attribution theory offered a framework for understanding consumers emotional and behavioral responses in consumption situations.

In a commentary on attribution theory, Pekrun and March (2018) stated Weiner's work in attribution is "*a milestone in research on human emotion and motivation . . . valid for a broad range of affective processes . . . [and] . . . lends itself to practical application*" (p. 19). They suggested a more comprehensive theoretical framework is needed. Based on a review of several studies, they identified antecedents such as value appraisals and need satisfaction would extend the application of Weiner's work (Eccles & Wigfield, 2002; Pekrun 1992; Ryan & Deci, 2017). Their suggestions align with the unique aspects of consumers' behavior in the path to purchase (P2P).

**Covid-19 Changed Consumer Behavior.** Consumer behavior shifted dramatically after January 2020 with the onset of the global COVID-19 pandemic. Many physical changes and process concessions were made to meet consumers' needs, wants, and desires. Much of this focused on the shift from physical to virtual spaces. The shift caused businesses to introduce new formats for meeting customers' expectations of safety when shopping while remaining efficient in pursuing their shopping objectives.

Consumers quickly adapted to this "new normal". They became comfortable with ordering online for home delivery, buying online with pick-up-at-store (BOPIS), and self-checkout. These changes reconfigured consumer expectations to include broader options.

The expansion of online options meant consumers could shop with their preferred provider anytime, anywhere, and anyplace.

While the marketplace is mostly open now, and consumers are comfortable engaging in physical spaces, the dynamics of consumer shopping behavior have changed. The new modes of consumer engagement developed during the pandemic continue to be strong. This suggests a permanent shift in consumers’ choices for engagement. There is a need to better understand the dynamic change during the pandemic that created these new consumer behaviors.

**Purpose.** The purpose of this conceptual paper is to present a framework and model for investigating consumer attribution in post-pandemic path to purchase (P2P) situations. It extends Weiner’s (2018) attribution of the three general causal beliefs of locus, stability, controllability of human motivation to three causal beliefs associated with the path to purchase: expectation, engagement, experience.

**Rationale.** Fundamental to understanding consumers in P2P is the need for a conceptual framework that examines consumer behavior from this new perspective. P2P represents the accumulated touchpoints and channels across the totality of a consumer’s awareness and involvement through the consumer’s (1) expectation, (2) engagement including purchase conversion, and (3) experience when in a purchase situation for a brand, product, or service. The causal beliefs in attribution align with the causal beliefs associated with the proposed P2P conceptualization. Thus, attribution offers a foundation for identifying and explaining the causal dimensions in P2P. We suggest this alignment offers a strong rationale for new discoveries.

**Three Dimensions of Attribution.** Weiner (2018) posited people want to understand why an event happened. He proposed a three-dimensional causal explanation for a person’s actions in a situation. First, the *locus* of the person is the origin of the situation. The *locus* may be either internal or external to a person. Second, is the *stability* of a situation. This could be an enduring or a transient event. Third, is the *controllability* of a situation. This reflects a person’s ability to control the outcome of an event and the satisfaction that is derived. See Table 1.

Table 1. Attribution Theory

Attribution (Weiner, 2000)		
ORIGIN	EVENT	RESULT
Locus of Person	Stability of Situation	Controllability of Situation
The behavior of a person in a situation must be able to be observed or perceived.	The behavior of a person involved in a situation is determined to be intentional.	The behavior of a person involved in a situation is attributed to either internal or external causes.

**Three Dimensions in Path to Purchase.** P2P is conceptualized in three dimensions. First, *expectation* reveals what a consumer wants, needs, or desires to purchase in the marketplace. The consumer’s *expectation* is associated with personal values and motivation. Second, the consumer’s *engagement* describes both emotional and behavioral involvement in the marketplace when seeking to make a purchase. Consumer engagement is essential to a purchase outcome. Third, the consumer’s *experience* is associated with the satisfaction derived from the outcome of an engagement. Consumer satisfaction reflects the total experience and how well the outcome met or exceeded expectations.

**Conceptual Framework.** This paper offers a conceptual framework for attributing consumer behavior in the path to purchase. It aligns each of the three stages in the path to purchase: expectation, engagement, and experience with the three concepts associated with attribution theory: locus of control, stability of situation, and controllability of the situation. See Table 2.

Table 2. Attribution in the Path to Purchase

Path to Purchase (Forney & Knight, 2022)		
EXPECTATION	ENGAGEMENT	EXPERIENCE
Locus of Control	Stability of Situation	Control of Situation
Consumer anticipates fulfilling a specific need, want, or desire by using online search or offline browsing situations to gather aligned information.	The consumer intentionally pursues online or offline store situations to fulfill a purchase intention.	The consumer determines if the outcome was the result of personal involvement or due to causes external to the P2P situation.

Expectation is associated with the consumer’s locus of control which is directed by internal and external sources in physical and/or virtual circumstances. The consumer’s internal control includes emotions such as expectancy, desire, and hope. External control is the result of a consumer’s situation represented by the situational circumstances in which the consumer seeks goods and services. The location of these circumstances may be physical, virtual, or both.

Engagement is aligned with the consumer’s activities while shopping in the marketplace. These activities will vary due to the type of purchase sought, its availability, and the competitive state of the marketplace.

Evaluation reveals the consumer’s degree of satisfaction with a purchase. The satisfaction metric may vary by brand or type of product or service. Other factors such as cost, wait time, delivery, or financing may impact a consumer’s level of satisfaction with a purchase.

**Conclusion.** Attribution theory offers a conceptual framework for investigating P2P. Consumer behavior in the P2P is intrinsically linked to time and place and understanding the transitory and durable changes on the P2P resulting from COVID-19 is an emerging research area.

References

1. Eccles, J.S. & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, 53, 109-132.
2. Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
3. Pekrum, R. (1992). The expectancy-value theory of anxiety: Overview and implications. In D.G. Forgays, T., Sonsnowski, & K. Wrzesniewski (Eds.). *Recent development in Self-Appraisal, Psychophysiological and Health Research*, pp. 315-341.
4. Ryan R.M., & Deci, E.L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York, NY: Guilford Press.
5. Weiner, B. (2018). The legacy of attribution approach to motivation and emotion: A no-crisis zone. *Motivation Science*, 4(1), 4 – 14.
6. Weiner, B. (2000). Attitudinal thoughts about consumer behavior. *Journal of Consumer Research*, 27, 382-387.

# **COMPREHENSIVE EVALUATION OF LAND INTENSIVE USE LEVEL IN LARGE AND MEDIUM SIZED CITIES IN CHINA**

**Wei Cai, East China University of Technology**  
**Xinxin Zhang, Jiangxi V&T College of Communication**  
**Xichao Zhao, Guangxi University of Finance and Economics**

---

## **EXTENDED ABSTRACT**

This study summarizes the general law of 69 large and medium-sized cities about the current urban land development and use, and this paper constructs the evaluation model by using entropy method, TOPSIS evaluation model and coordination coefficient analysis method, and analyzes the basic situation of land intensive use level of large and medium-sized cities in China.

According to the analysis of land intensive use in different cities, these cities can be divided into five categories: highest level, higher level, general level, lower level and lowest level. And on this basis, it is easy to infer that there is a certain degree of correlation between the level of urban land intensive use and the level of economic development in China.

This paper try to find a proper model in land development and use in these cities.

Since the reform and opening up, the development level of China's economy, society and other aspects has gone up all the way, and has become increasingly perfect. However, while achieving leapfrog development, the problem of extensive use of urban land has not been fundamentally solved, and the phenomenon of "village in city" is one of the typical manifestations. With the acceleration of urbanization, the contradiction between land resource control and urban expansion is increasingly apparent; At present, the negative impact of urban overdevelopment cannot be compensated by the efficiency of urban land intensive use, which leads to the formation of the phenomenon of "invisible idle land". The negative impact of urban land issues on urban development has become increasingly prominent and has gradually become a "short board" in the process of urban development. Whether the efficiency of urban land intensive use can be effectively improved and whether the high level of urban land intensive use can be achieved is directly related to the success or failure of urban development in China.

This study takes 69 large and medium-sized cities in China as samples to measure the level of urban land intensive use.

Through the analysis of 69 large and medium-sized cities' land intensive use, we can see that the number of cities whose evaluation scores of urban land intensive use level are in the middle level (within the range of 0.1-0.2) is in the majority, and gradually decreases to both sides. In order to improve the level of intensive land use in each city and tap the potential of new driving forces of land to promote urban development, according to the classification of results and the integration and analysis of corresponding solutions, provide relevant suggestions for each type of city to adopt an intensive land use model:

1. The cities in the first category are generally at a relatively developed level. They can mainly adopt the environmental protection relocation grounding mode and the urban three-dimensional space development land saving mode, supplemented by the multi and high-rise

standard factory building land saving mode, and pursue the optimal intensification of urban land use level to achieve economic efficiency, ecological and environmental protection and other aspects. On a specific level, we can focus on improving the efficiency of land intensive use, moving out or eliminating industries with low ecological and economic benefits, and integrating and redistributing some inefficient land. At the same time, urban construction can be appropriately extended to the surrounding areas to ease the contradiction between land and development, expand the influence of developed cities, and drive the surrounding areas to form regional and efficient development. In addition, the development and utilization of these cities' two-dimensional flat areas of land resources have basically reached the saturation state of current development. Further pursuing the development of three-dimensional space and efficient use is a practical method to mention the level of intensive land use.

2. The second type of cities tend to saturate the use of land resources, and can mainly adopt the land saving mode of public resource sharing and environmental protection relocation. Promote the transformation of land resources into key elements of public services, centralize and integrate facilities with similar purposes into special areas, and avoid unnecessary land use pressure caused by repeated construction. On the other hand, accelerate the updating and iteration of industries and related facilities under the premise of ensuring ecological and environmental protection, and gradually improve the efficiency of intensive land use and economic benefits in the process of replacing old and new. In order to improve the land efficiency, we should also pay attention to the maintenance and improvement of the local ecological environment to ensure that the city will further enhance its attractiveness in the process of steady progress.

3. As we have just entered the process of modernization, the level of intensive land use in the third type of cities is general and universal. Compared with the former two types of cities, we can improve the situation of intensive land use in more ways, and maximize the efficiency of using the new momentum of land to promote the process of urban modernization. It can mainly adopt the land saving mode of transformation and utilization of industrial and mining wasteland and the land saving mode of multi and high-rise standard factory buildings. Encourage the construction of multiple and high-rise buildings within the scope of relevant regulations, and equip them with corresponding equipment as standard workshops, which can provide production space for a large number of small and medium-sized enterprises in the start-up stage, reduce the cost of start-up enterprises and reduce their demand for additional land; For abandoned industrial and mining land and old urban facilities, it is recommended to update, transform and reuse them on the spot to reduce waste and pollution, so as to revitalize and efficiently use the abandoned and idle land, and realize the simultaneous development of land productivity and ecological benefits.

4. For cities belonging to the fourth category, the current lack of geographically available land resources is the biggest constraint to improve the level of intensive land use. Such cities can adopt the land saving mode of urban three-dimensional space development to expand the available space of the city; In terms of improving the land use efficiency at the two-dimensional regional level, in combination with the land saving mode of road traffic design optimization and the land saving mode of industrial and mining wasteland transformation and utilization, we focus on adjusting measures to local conditions, looking for new industrial forms suitable for local development, bringing more land in the region into the available range, and realizing the maximum development and utilization of land. At the same time, we should not fall behind in the pursuit of a higher level of intensive use. For the land that has been put into use, we can cooperate with more developed regions to carry out industrial transformation and upgrading on the premise of ensuring the ecological

benefits of land, and use advanced industries to stimulate the vigorous power of land resources to promote development.

5. The fifth category of cities is still in the primary stage in terms of the process of urban modernization. Land resources have little impact on urban development. Various models in this paper can be flexibly adopted in combination with urban conditions, respond to the requirements of urban modernization, further improve the overall level of land use planning, and improve the level of urban land intensive use. On the one hand, it starts to optimize the infrastructure to reduce the waste of resources caused by the land occupied by low efficiency facilities. At the same time, it also plays a role in reducing the cost of economic development, which is conducive to increasing the attractiveness of the city and accumulating the potential of urban development; On the other hand, actively introduce advanced industries that adapt to the local conditions and make use of idle land; In addition, when the cost of ecological construction in the primary stage is low, we should implement the concept of sustainable development, and focus on the role of ecological benefits of land kinetic energy in promoting urban development. By doing so, we are committed to achieving the simultaneous improvement of urban development level and land intensive utilization level, deeply tapping the huge potential of land resources as a new driving force, and boosting the development of urban modernization.

As cities are scientifically classified, this is beneficial to the marketing of cities.

**Key Words:** Intensive use of urban land; Information Entropy; Model of TOPSIS; Coordination coefficients

## References

- [1] Li Panpan. Research on Urban Land Intensive Use Policy under the Background of New Urbanization [D]. Shenyang Jianzhu University, 2020
- [2] Yang Jun, Huang Xianjin, Wang Zhanqi, Zhang Jian, Gong Yunlong. Re understanding of some issues of urban land intensive use in China in the new era [J]. China Land Science, 2020,34 (11): 31-37
- [3] Shi Siqu, Liang Yanqing, Huang Zhiying, Liang Liying, Ge Jingfeng. Analysis of spatio-temporal heterogeneity of China's land intensive use level and its obstacle factors under the concept of low carbon [J]. Journal of Natural Science of Hunan Normal University, 2020,43 (03): 1-9
- [4] Sun Xiaoxiang, Qin Yijuan. Research on evaluation of urban land intensive use based on PSR model -- taking Suzhou as an example [J]. Journal of Southwest University (Natural Science Edition), 2021,43 (04): 100-108
- [5] Yuan Qingpo. Analysis of Land Conservation and Intensive Use Mode -- Taking Xiangjiang New Area in Hunan Province as an Example [J]. Rural Economy and Technology, 2018, 29 (15): 22-23
- [6] Sun Weijie, Hou Xueping. Research on Land Use Model of Guangdong Development Zone [J]. Shanghai Land Resources, 2014, 35 (01): 19-22
- [7] Xu Jianhong. Practical exploration of land multiple use mode in abandoned mining area of Suichang Gold Mine in Zhejiang Province [J]. Low Carbon World, 2021,11 (04): 100-101
- [8] Wei Li, Yan Jun. Comprehensive evaluation of urban land intensive use level in Yinchuan based on TOPSIS model [J]. Journal of Hunan University of Science and Technology, 2019, 40 (10): 89-92
- [9] Ha Shangchen, Alimujiang Kasmu. Study on Intensive Utilization and Land Expansion of Urban Land [J]. Research on Water and Soil Conservation, 2016, 23 (06): 296-302

[10] Wu Guoyong. Research on Evaluation of Intensive and Economical Use of Construction Land in Land Planning -- Taking Danzhai County, Guizhou Province as an Example [J]. Economic Forum, 2010 (06): 31-34

[11]Luo Peicong, Dong Furong. Research on the evaluation of the current situation of urban land intensive use -- taking Fuzhou residential land as an example [J]. Journal of Guizhou Normal University (Natural Science Edition), 2008 (04): 49-53



**RESEARCH ON THE CHINA-AFRICA ECONOMIC AND  
TRADE TALENT CULTIVATION MODE INNOVATION IN  
HUNAN UNIVERSITIES, CHINA WITH THE  
BACKGROUND OF DIGITAL ECONOMY**

**Wang Nan, Hunan University of Technology and Business  
Chen Yang, Hunan University of Technology and Business  
Jafaru Abdul Manan, Hunan University of Technology and Business**

---

**EXTENDED ABSTRACT**

The fourth industrial revolution has opened a new stage of informatization development, and the digital economy has gradually become a new engine for global economic development. The digital economy gives fresh impetus to new social changes, and China-Africa digital economic cooperation will become a new growth point in the future. Taking two national platforms, the China-Africa Economic and Trade Expo and the China-Africa Economic and Trade In-depth Cooperation Pilot Zone, Hunan province has quickened its step towards Africa. As one of the most active provinces in China in regard to the China-Africa economic and trade exchanges, Hunan province generates a relatively strong demand for talents, especially localized talents, which also put forward new requirements for the talent cultivation in this field. How to cultivate and meet the demand for talents in China-Africa economic and trade exchanges in the context of the digital economy is concerned by universities in Hunan province.

This paper starts with the current situation of China-Africa economic and trade talent cultivation in Hunan universities. As of September 2021, there are 53 undergraduate colleges or universities (including private ones) in Hunan province, 41 of which offer Marketing major. Through in-depth analysis of 20 talent cultivation programs from different types of universities in Hunan province, it is found that there are three existing major problems. The curriculum setting does not match cultivation objectives; teaching methods are backward; current cultivation program fails to highlight local characteristics.

Based on the employee recruitment and talent demand reports from 7 companies engaged into African businesses and summary of the successful experience from colleges and universities in other provinces, this paper proposes an innovative path for China-Africa economic and trade talent cultivation in Hunan universities. The details are as follows: Upgrading cultivation program and improving the curriculum system; Innovating teaching mode and combining with local characteristics; exploring joint-cultivation and multi-party collaboration. It is worth noting that the talent cultivation work is a systematic project, which cannot be accomplished overnight. In the future, in addition to continuous innovation in talent cultivation mode, following research could be carried out in the fields of career planning, employment guidance, talent order management, and cooperative education, so as

to give impetus to China-Africa economic and trade cooperation with practical achievements.

## REFERENCES

- "African Envoys Enter China-Africa Economic and Trade In-depth Cooperation Pilot Zone", Hunan Provincial Department of Commerce, August 3, 2022, from [http://swt.hunan.gov.cn/swt/hnswt/swdt/mt/202208/t20220803\\_246812363570976576.html](http://swt.hunan.gov.cn/swt/hnswt/swdt/mt/202208/t20220803_246812363570976576.html)
- Guo Yanli, Xue Yun.(2020).Exploration on the New Business Practice Talent Cultivation Mode in the Digital Economy Era. *Higher Education Journal* (36),165-168.
- Hong Jie.( 2007).Exploration and Practice of International Business Talent Cultivation Mode. *Chinese University Teaching* (05), 42-44.
- Huang Yupei. (2019). China-Africa Joint Endeavor on the Digital Silk Road: Opportunities, Challenges and Approaches.*China International Studies*(04),50-63+137.
- Jiang Qiuxia.(2021). Duan Wenqi: Forging Economic and Management Talents for China-Africa Economic and Trade Upgrading. *Manager* (05), 58-59.
- Ma Hanzhi. (2021). China-Africa Digital Innovation Partnership Program Helps African Economic Transformation. *Import and Export Manager* (10),44-45.
- Wei Tao, Zhan Jing.(2022). Research on the New Path of International Economic and Trade Talent Cultivation under the Background of New Liberal Arts Construction: Based on a Survey of Undergraduate Colleges and Universities in Hunan Province. *The Science Education Article Collects*(09),58-61.
- Xu Chunxiang, Peng Hui, Gao Hongmin.(2018). The Background, Goal and Path of the Transformation of the International Economic and Trade Talent Cultivation Mode in Science and Technology Universities. *Journal of Liaoning University of Technology (Social Science Edition)* 20(05), 127-130.
- "Xi Jinping's Keynote Speech at the Opening Ceremony of the Eighth Ministerial Conference of the Forum on China-Africa Cooperation (full text)", November 29, 2021, from [http://www.gov.cn/xinwen/2021-11/29/content\\_5654846.html](http://www.gov.cn/xinwen/2021-11/29/content_5654846.html)
- Zhou Qian, Yao Yuanyuan. (2022). Prospects, Challenges and Sino-African Cooperation in the Development of the African Continental Free Trade Zone. *China Investment (Chinese and English)*(Z6), 104-105.
- Zhang Chunping. (2021). Research on the Cultivation of China-Russia Economic and Trade Talent under the background of Heilongjiang Free Trade Zone. *Heilongjiang Education (Theory and Practice)*(11),23-25.

## **HOT TOPICS AND EVOLUTION TREND OF RESEARCH ON URBAN AGGLOMERATIONS IN THE MIDDLE REACHES OF THE YANGTZE RIVER IN CHINA**

**Shu Xu**, Hunan University of Technology and Business  
**Min Jiang**, Hunan University of Technology and Business  
**Nan Wang**, Hunan University of Technology and Business

---

### **EXTENDED ABSTRACT**

By using visual analysis software Citespace 5.3, Bicom and SPSS, this paper carries out bibliometrics and knowledge graph analysis on research and papers on urban agglomerations in the middle reaches of the Yangtze River collected in the Chinese Social Sciences Citation Index (CSSCI) database since its establishment. From the multi-dimensional perspectives of the chronological distribution, important journals, core authors, high-yield institutions and research hot topics of the urban agglomerations study in the middle reaches of the Yangtze River, this paper presents the basic situation, hot topics and its dynamic evolution process of the research in this field in an all-round way, so as to provide ideas and reference for the further research on the urban agglomerations in the middle reaches of the Yangtze River. The research also tell us the region development must use marketing ideas and methods to plan and operate. In the future, this area needs to carry out a forward-looking exploration based on the needs of the new era, adjust the research direction combined with the Chinese “Belt and Road Initiative”, expand the research on various countries and strengthen team cooperation, so as to promote the research on urban agglomerations in the middle reaches of the Yangtze River in depth and breadth for reference to counterparts in the world. The strategic management idea of regional marketing is an important research direction for the Yangtze River Economic Belt in the future.

**Research methods and tools:** This study objectively reflects the basic situation of urban agglomerations research in the middle reaches of the Yangtze River by utilizing bibliometric and quantitative data analysis. It is CiteSpace 5.3, a knowledge network analysis tool that is used in this paper as research tool. The software can visualize the knowledge graph analysis of the literature information in the discipline field, so that researchers can directly identify the complex relationship between the interaction and evolution of the discipline knowledge groups, thus detect and analyze the research frontiers and hot topics of the discipline.

### **REFERENCES**

Lei Wang, Qian Gao. Research on economic performance impact of spatial structure of urban agglomerations in the middle reaches of the Yangtze River [J]. *Human Geography*, 2008, 33(06):96-102.

Danling Chen, Xinhai Lu, Chaozheng Zhang. Spatial correlation and interpretation of urban land use efficiency in the context of regional integration, taking urban agglomerations in the middle reaches of the Yangtze River as an example [J]. *Journal of huazhong agricultural university (social science edition)*, 2019, (04):151-159+177-178.

Min Wang, Wenbin Guo. Knowledge graph and hot topics of emotional regulation research in China in recent ten years [J]. *Psychological research*, 2011, (5): 56-59.

Ningjie Wu, Cuiling Guan, Yinggui Qiu. Research on the coupling and coordination between logistics industry and economic development of urban agglomerations in the middle reaches of the Yangtze River [J]. *Journal of zhongnan university of economics and law*, 2019, (04): 89-99.

Mousheng Xie, Weiming Liu, Min Wang. Empirical analysis on the relationship between environmental pollution and economic growth of urban agglomerations in the middle reaches of the Yangtze River [J]. *Jiangxi social sciences*, 2019, 39 (01) : 66-76.

Yan Chen, Chunlai Yuan. Analysis on green and low-carbon coordinated development of urban agglomerations in the middle reaches of the Yangtze River [J]. *Environmental protection*, 2019, 47 (10) : 57-61.

Jinping Xi. Speech at the symposium on further promoting the Yangtze River Economic Belt development [N]. *People's Daily*, 2018-06-14 (002).

Jianna Cai, Xu Xu, Li Lin. Evolution and structure analysis on regional economic development in the upper reaches of the Yangtze River Economic Belt [J]. *Shanghai economic research*, 2019, (07):36-44.

Yuemin Ning. On the definition and role of Chinese urban agglomerations. *Regional economic review*, 2016, (1) :124-130.

Minghua Chen, Wei Liu, Huajun Liu. Distribution dynamics and interactive effects of economic development in China's five major urban agglomerations [J]. *Economic and management review*, 2017, 33 (05) : 146-154.

## **Funding**

The presented work was funded by the National Social Science Foundation of China through the Project of "Research on the Mechanism of Urban Agglomeration, Industrial Linkage and Regional Collaborative Innovation in the Middle Reaches of the Yangtze River (15BJY040)".

# **ANALYSIS OF THE INTERNAL CAUSES OF CAPITAL CHAIN BREAKAGE IN ENTERPRISES AND ITS ENLIGHTENMENT: A CASE STUDY OF THE CFLD**

**Ziqi Tang, Hunan University of Technology and Business**

**Shu Xu, Hunan University of Technology and Business**

---

## **ABSTRACT**

Through the analysis of the CFLD bond default case capital chain rupture, with enterprises as the main body the internal reason of the capital chain rupture, and stand in the perspective of enterprise is how to recognize and avoid capital chain rupture risk, put forward the enterprise in the process of operation should be watchful of the capital chain tension phenomenon: business model long payback periods, accounts receivable turnover rate decline; Improper management decisions, insufficient marketing and promotion. The related party guarantees and the partners occupy serious funds; Limited capital is large, refinancing difficulty. The controlling shareholder cashes out or pledges shares; Debt structure is unreasonable, and solvency is weak.

---

## **INTRODUCTION**

Capital is the "lifeblood" to guarantee the survival of enterprises and the "blood" to promote the development of enterprises. Once an enterprise has a capital chain break, it will be hindered by the shortage of cash flow, leading to a large scale of property losses, and it will directly cause the bankruptcy of the enterprise. Real estate industry as an industry prominent by high debt characteristics, the main risk is that the pressure of funds. In recent years, under the background of the novel coronavirus outbreak, the declined long-term growth rate and the short-term regulating escalation, the real estate enterprise profitability is weak. Superposition of financing constraints, the bond credit risk of real estate picked up, and frequent bond defaults. The security of capital chain is very important for the survival and development of enterprises.

In the bond market, bond defaults have gradually become a normal trend. From 2018 to 2021, the number of companies defaulting on their bonds and the amount defaulting on their bonds increasing significantly. In 2021, the defaulted bonds of real estate enterprises are far higher than the level of the same period last year, both in terms of quantity and amount, and the defaulted real estate enterprises have expanded from the little-known regional small enterprises to the national well-known enterprises. As a large listed company in the real estate industry, the CFLD defaulted on its bonds in 2021. The most direct reason for this crisis is that the tension of capital chain, caused the enterprise to have insufficient funds to repay the maturing debt and interest. Although the macro environment is changing,

the weak ability of enterprises to resist risks and the instability of capital chain are the fundamental reasons leading to the crisis. Based on this, this paper takes the CFLD as an example to analyze the internal reasons that lead to the rupture of capital chain, and to think and enlightenment on how to identify and avoid the tension of capital chain from the perspective of enterprises.

### **CASE REVIEW**

China Fortune Land Development Co. Ltd (Stock code: 600340), founded in 1998, is a leading industrial city operator in China. The company adheres to the strategy of focusing on core metropolitan areas, focusing on industrial new towns and related businesses, commercial real estate and related businesses. Its main business income mainly comes from industrial development services and real estate development. The construction of new industrial towns business model is developmental PPP mode. As the main body of investment and development, the CFLD accepts the entrustment of the local government where the cooperation area is located, the two sides signed a long-term cooperation to develop the PPP protocol. The local government pays the service fee based on the amount of investment in the construction project and the initial investment of CFLD.

In 2020, CFLD ranked first in comprehensive strength among operators of domestic industrial new towns, 12th in China's top 100 real estate enterprises, 53rd in China's top 500 private enterprises list, and has strong comprehensive strength in the real estate development industry. The company's assets reached 441 billion yuan by the end of 2021, according to its financial disclosure.

Due to the impact of macroeconomic environment, industry environment, credit environment and multiple rounds of epidemic, the liquidity of the CFLD has been stressed in stages. On February 27, 2021, CFLD issued a debt default notice that the recent failure to complete the payment of bonds on time, and the enterprise triggered the cross-default protection clause and the first bond default. By the end of 2021, CFLD had been involved in nine bond defaults, and the cumulative scale of default had reached 18.31 billion yuan. On December 9, 2021, the plenary meeting of CFLD Debt Committee adopted the Debt Restructuring Plan, which involved the subsequent disposal of debts of 219.29 billion yuan, including selling assets to collect funds, selling assets to take away debts, rolling over, cash payment, beneficiary right of trust debt repayment, subsequent gradual repayment and other methods. The CFLD disclosed that the bond is not due to repay the reason for the "company liquidity stage tension", that is, the company's capital chain tension is the root cause of bond default.

### **ANALYSIS OF THE INTERNAL CAUSES OF CAPITAL BREAK**

On the macro level, on the one hand, due to the outbreak and continuous impact of the COVID-19 epidemic, the macroeconomic downturn and slow growth; On the other hand, under the change of credit environment, the financing environment is tightened. Under the influence of these two aspects, the operating pressure of enterprises and the financing cost increases, making enterprises face the dilemma of tight capital chain and rising default risk.

However, under the same background, some real estate enterprises can still maintain a good development trend and continue to operate steadily, such as Vanke, China Resources, Poly, etc., while some enterprises have a tight capital chain and struggle to continue to operate. It shows that the change of macro environment is not the direct reason leading to the break of enterprise capital chain, but the fundamental reason lies in the enterprise itself. Therefore, this paper will analyze the internal reasons leading to the break of enterprise capital chain from the following aspects.

### **The long collection cycle of business model, and the turnover rate of accounts receivable decreases**

The core business of CFLD is to implement the PPP model and cooperate with local governments to develop new industrial cities. And the project income mainly comes from the government payment. The prominent characteristics of this model are high initial investment, long payback cycle and high business risk. Industry development service fee is in the operating period of installment payment, but the whole operational period of time for decades, so the CFLD need to through a long time to recovery of funds of the project advances. And the time of collection is easily affected by national policies, market environment and macro economy.

Since 2016, CFLD has undertaken a large number of PPP projects. The total investment of these PPP projects is huge. For example, the total investment of "Handan Congtai Industrial New Town PPP Project in Hebei Province" is as high as 14 billion yuan. A large number of projects can drive the company's profit growth, but a large part of the book profit is not realized in the way of cash inflow, but in the form of accounts receivable, inventory or contract assets increase. From 2016 to 2020, as shown in Table 1, CFLD achieved a cumulative net profit of 46.32 billion yuan, a cumulative increase of 216.52 billion yuan in accounts receivable, inventories and contracted assets, and a cumulative net outflow of 70.88 billion yuan in cash flow from operating activities. As the number of industrial new city projects undertaken by CFLD continues to increase, the amount of investment continues to expand, and the project profits rarely bring net cash inflow, the financial risk of CFLD continues to accumulate, which is the most fundamental reason for its capital chain tension.

Table 1 Operating income related statement items (Units: billion yuan)

Report items	2016	2017	2018	2019	2020
Accounts receivable	9.50	18.91	34.44	46.87	63.14
Inventory	147.30	229.80	254.50	290.30	179.20
Contract Assets	-	-	-	-	131.00
Net profit	6.17	8.87	11.80	14.68	4.81
Net cash flow from operating activities	7.76	-16.23	-7.43	-31.82	-23.16

(Data source: Collated according to annual report of the CFLD)

At the same time, as shown in Table 2, the accounts receivable of CFLD increased rapidly from 9.5 billion yuan in 2016 to 63.14 billion yuan in 2020, the accounts receivable turnover ratio continued to decline, from 4.20 in 2016 to 0.72 in 2020. Since 2016, the company's accounts receivable has been greater than revenue growth, further illustrate company profitability is weak, and accounts receivable collection ability is greatly reduced. High book value of accounts receivable is lead to lack of liquidity, and it reached the peak in 2020 before officially announced its material breach. The increase in accounts receivable exacerbates the risk of capital chain break.

Table 2 Statistical Table of accounts receivable (Units: billion yuan)

	2016	2017	2018	2019	2020
Accounts receivable	9.50	18.91	34.44	46.87	63.14
Operating revenue	53.82	59.64	83.80	105.20	101.20
Accounts receivable growth rate	32.38%	99.03%	82.13%	36.09%	34.71%
Accounts receivable turnover ratio (times)	4.20	3.14	2.59	1.84	0.72
Accounts receivable account for the operating revenue ratio	17.65%	31.71%	41.10%	44.55%	62.39%

(Data source: Collated according to annual report of the CFLD)

### **Improper business decisions and inadequate marketing and promotion**

In order to encourage residents to purchase houses reasonably, Beijing began to implement the most severe real estate purchase restriction policy on March 17, 2017, setting different purchase restriction conditions for local population and non-local population respectively. Later, the purchase restriction policy in the surrounding Beijing area was also introduced successively. Ring Beijing area as an important investment area of CFLD, was seriously affected by the purchase restriction policy, Ring Beijing area real estate sales plummeted, housing prices also fell by more than 30%, the overall turnover is less than the peak of 20%. However, after the introduction of the purchase restriction policy, the enthusiasm for land purchase of CFLD has not been reduced. According to the announcement, CFLD plans to use 22 billion yuan to buy operational land between May and June 2020. According to the financial report, the amount of land acquisition in 2019 was 31.1 billion yuan, up 204% year on year; A total of 4.21 million square meters of land was acquired, an increase of 63 percent over 2018.

At the same time, according to figure 1, CFLD began to reduce its sales expenses year by year since 2017, especially the marketing and promotion expenses, which decreased from the peak of 1.15 billion yuan in 2018 to 303 million yuan in 2021. The proportion of marketing and promotion expenses in sales expenses also decreased significantly, from 61% in 2018 to 26% in 2021. CFLD marketing and promotion expenditure reduced significantly, marketing efforts weakened



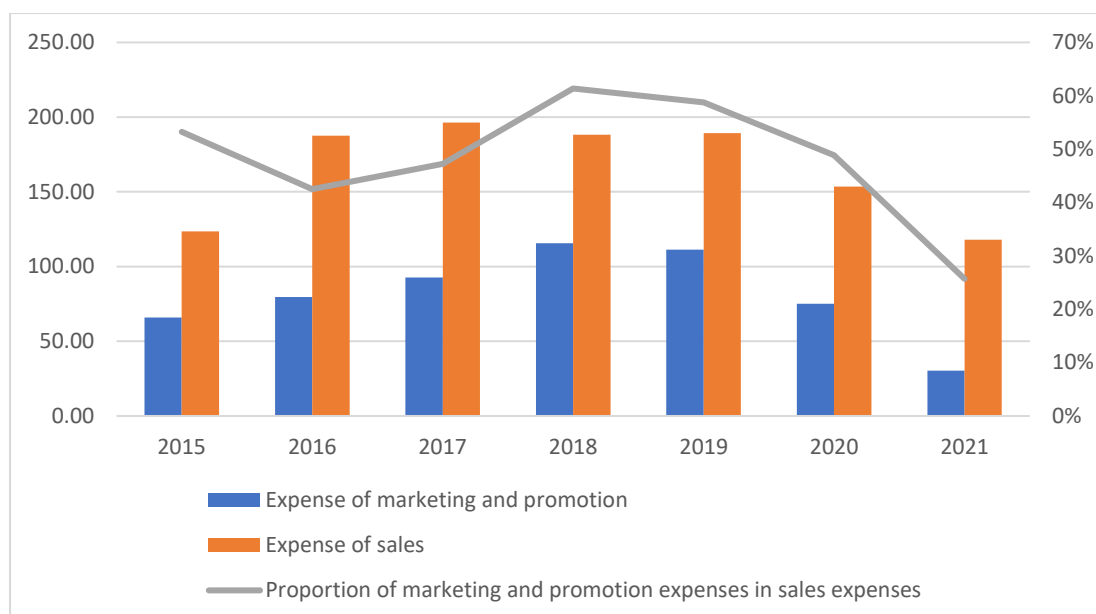


Figure 1. Marketing and promotion expenses and sales expenses (Units: billion yuan)

### The related party guarantees a large amount and the partner occupies serious funds

According to the annual report, by the end of 2020, the amount of the company's external guarantee was 162.58 billion yuan, of which 161.98 billion yuan was for the holding subsidiary. The huge amount of related party guarantee and capital occupation aggravated the tension of the enterprise's capital chain.

As can be seen from Table 3, the scale of other receivables of the enterprise is relatively large, among which the partner's exchange accounts account for the highest proportion. Before the announcement of CFLD's bond default, current account of the partner reached 12.92 billion yuan by the end of 2020, accounting for 55.88% of other receivables. And the partner's exchange funds increased significantly, with an increase of about 99.30% in 2019. In 2020, the increase reached 124.39%. The partner takes up too much capital, which leads to the reduction of working capital available to the enterprise, and brings great pressure to the capital chain.

Table 3 Other receivables (Units: billion yuan)

	2018	2019	2020
Receivables from partners	2.89	5.76	12.92
Other receivables book balance	14.34	16.46	23.12
Proportion of current accounts of partners	20.14%	34.98%	55.88%

(Data source: Collated according to annual report of the CFLD)

### The large restricted funds, and the refinancing is difficulties

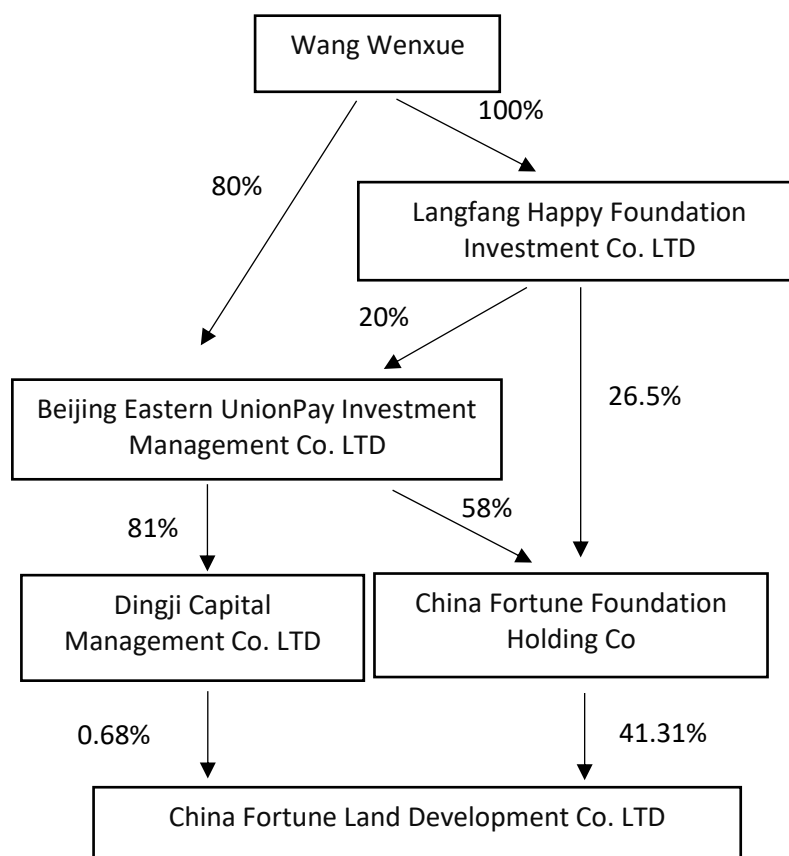
According to the 2020 audit report of CFLD, by the end of the reporting period, the balance of the company's monetary fund is 26.99 billion yuan, including 2.03 billion yuan of available funds and 24.96 billion yuan of funds with various restricted or restricted purposes. The above 24.96 billion yuan of restricted or restricted use funds cannot be used to repay the liabilities of financial institutions, including 7.98 billion yuan of self-owned housing project supervision funds, 2.39 billion yuan of special use funds of the park, The cooperation project fund is 10.72 billion yuan, the park performance bond is 340 million yuan, overseas restricted funds are 1.76 billion yuan, and other restricted funds are 1.78 billion yuan. After defaulting on bonds in 2021, CFLD had only 766 million available funds in the second quarter of 2022, basically no working capital, and the capital chain has been extremely strained.

In 2020, on the meeting of the central bank of real estate enterprise financing to draw the "three red lines": excluding the advance after the asset-liability ratio of more than 70%; net debt ratio greater than 100%; the cash-to-debt ratio is less than 1 times. If the "three red lines" all met, enterprises will not be able to increase interest debt. According to the 2020 annual report disclosed by CFLD, corporation's adjusted asset-liability ratio is 76.60%, net debt ratio is 184%, cash short debt ratio is 0.33 times, and hit all the "three red lines". According to regulatory requirements, CFLD's debt is not allowed to increase. Actually, the company has also failed to issue new bonds in the domestic bond market since the second half of 2020. In the case of "three red lines" touched by CFLD, it is difficult to meet the refinancing conditions, by continuing to issue bonds or borrowing to ease the tension of the capital chain is no longer feasible.

### **The controlling shareholder cash out, and the pledged shares**

In November 2019, Hurun Research Institute released the Hurun Top 30 Cash Out Entrepreneurs in 2019, revealing that 30 entrepreneurs "cash out" more than 90 billion yuan. Among them, Wang Wenxue by reducing the holdings of CFLD and ST Hongsheng part of the equity and by obtaining the dividends of the listed company CFLD in the past year, the cumulative cash out of 13.1 billion yuan, ranked the first cash out of entrepreneurs. In order to alleviate the financial problems of the company, CFLD brought in Ping An of China in 2018 to invest in the form of equity investment and debt investment. After signing two share transfer agreements in July 2018 and January 2019, Ping An of China holds 25.12% equity of CFLD, with a total investment amount of about 18.073 billion yuan. According to figure 2, CFLD eventually is finally controlled by Wenxue Wang, the most of the 18 billion

investment amount are owned by their actual controller, and the rarely cash is to stay in



CFLD.

Figure 1 Property right and control relationship between CFLD and actual controller in 2018

At the same time, in order to cope with the shortage of available funds, CFLD chose equity pledge to raise funds. By the end of March 2021, the cumulative number of pledged shares of CFLD was accounted for 14.37% of the total capital stock, and accounted for 55.25% of the shareholding ratio of important shareholders. When the company conducts equity pledge, it indicates that its capital turnover is difficult. The current financial situation cannot maintain normal operation, and it is in urgent need of funds to replenish cash flow. A large amount of equity pledge indicates that the company has capital turnover difficulties and capital chain tension.

**The liability structure is unreasonable and the solvency is weak**

The asset-liability ratio of the CFLD remains high. By the end of 2021, the balance of financial interest-bearing liabilities reached RMB 205.74 billion, including RMB 29.16 billion in short-term borrowings and short-term bonds payable. Non-current financial liabilities due within one year amounted to 124.19 billion yuan, and long-term borrowings and bonds payable amounted to 52.39 billion yuan. The asset-liability ratio has been above 80 percent for nearly a decade and reached 94.6 percent in 2021. It shows that the debt pressure of CFLD is relatively high. If the operating cash flow of the enterprise goes wrong,

the capital chain may be broken and the debt cannot be repaid in time, which put forward higher requirements for the stability of cash flow of enterprises.

Table 4 Basic Situation of Corporate Bonds (as of December 31, 2020)

Name of the bond	Issue Date	Maturity Date	Bond balance (billion yuan)	Interest rate (%)
15 Hua Xia 05	2015-10-22	2022-10-22	4.00	5.50
16 Hua Xia Debt	2016-1-20	2023-1-20	1.50	4.88
16 Hua Xia 02	2016-3-3	2021-3-3	2.00	7.00
16 Hua Xia 01	2016-3-4	2021-3-9	2.80	7.40
16 Hua Xia 04	2016-3-24	2021-3-24	3.00	7.40
16 Hua Xia 05	2016-4-12	2021-4-18	2.00	7.20
16 Hua Xia 06	2016-5-10	2021-5-12	4.00	7.20
18 Hua Xia 01	2018-5-30	2022-5-30	2.48	5.00
18 Hua Xia 02	2018-5-30	2023-5-30	0.53	6.80
18 Hua Xia 03	2018-6-20	2022-6-20	2.00	4.40
18 Hua Xia 04	2018-9-10	2021-9-10	1.30	5.60
18 Hua Xia 06	2018-12-20	2023-12-20	0.02	6.00
18 Hua Xia 07	2018-12-20	2025-12-20	4.00	8.30
19 Hua Xia 01	2019-3-25	2024-3-25	1.00	5.50
17 Happiness Foundation MTN001	2017-05-19	2022-05-23	1.80	5.80
20 China Happiness MTN001	2020-03-19	2025-03-23	1.00	5.50
20 China Happiness MTN002	2020-04-16	2025-04-20	0.50	5.17
Total			29.13	

(Data source: Collated according to annual report of the CFLD)

According to Table 4, there are 6 bonds maturing in 2021 of CFLD. In March alone, 3 bonds maturing in a concentrated way need to redeem principal and interest, 2 bonds need to pay interest, total of 8.48 billion yuan of cash needs to be paid. In addition, CFLD also has a large number of bank loans and trust loans. According to the 2020 annual report, the total financing amount of the company at the end of the report is 195.26 billion yuan, the weighted average cost of financing in 2020 was 7.97%. The combined payments on these debts exceeded the company's available cash, triggering a default.

Table 5 Solvency indicators

	2016	2017	2018	2019	2020
Current ratio	1.40	1.53	1.52	1.58	1.55
Quick ratio	0.48	0.52	0.47	0.49	0.92

(Data source: Collated according to annual report of the CFLD)

In terms of solvency, the table 5 shows that, in the past five years, the current ratio of CFLD has remained between 1.40 and 1.58, the quick ratio has been hovering around 0.5, and its sharp increase to 0.92 in 2020 is due to the fact that 134.315 billion yuan of inventory items were converted into contracted assets. Under normal circumstances, it is better for an enterprise to keep its current ratio and quick ratio around 2 and 1, respectively. However, the average current ratio and quick ratio of CFLD in the recent five years are 1.52 and 0.57, respectively, which reflect that the enterprise has weak short-term debt paying ability and is very prone to short-term debt crisis to hinder its development.

The unreasonable bond maturity structure, the large increase of short-term debt and the weak short-term debt paying ability of CFLD make it unable to effectively guarantee the repayment of its current liabilities, which leads to the tight capital chain of CFLD and the occurrence of bond default.

### **IDENTIFICATION OF CAPITAL BREAK RISK**

Edward Altman established the Z-score model with only five indicators as variables in 1968. The model can be used to measure the financial condition of listed enterprises and estimate the possibility of financial crisis within two years. With the emergence of debt default, it is also widely used in predicting whether enterprises have debt default risk.

The function of z-score model is:  $Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.999X_5$ .

Where,  $X_1$  is the working capital divided by the total assets, which is used to show the liquidity degree and scale of the enterprise. If the enterprise has more liquidity assets, it means that the solvency of the enterprise is stronger.  $X_2$  is the retained earnings divided by the total assets, used to reflect the company's profitability;  $X_3$  is the earnings before interest and tax divided by the total assets, reflecting the ability of enterprise owners and enterprise creditors to make profits from the total investment;  $X_4$  is the total stock market value divided by the total liabilities, reflecting the value of the enterprise and the stability of the financial structure of the enterprise;  $X_5$  is the operating income divided by the total assets, reflecting the sales ability of the enterprise.

Using Z score to determine the financial condition of the enterprise is as follows: when Z score is lower than 1.81, the financial condition of the enterprise is worrying and there is a high risk of default; When the Z score is between 1.81-2.68, it indicates that the financial situation of the enterprise is not stable enough and contains potential default risk; When Z score is higher than 2.68, it indicates that the financial risk of the enterprise is small and it is in a safe period.

This paper collected the annual report data of CFLD before its default, and obtained the Z-score of CFLD in five years by calculating  $X_1$  to  $X_5$ , as shown in the following table.

Table 6 Calculation of Z-Score of CFLD from 2016 to 2020

	2016	2017	2018	2019	2020
x1	0.256	0.320	0.306	0.335	0.318
x2	0.061	0.058	0.074	0.089	0.083
x3	0.038	0.037	0.045	0.055	0.032
x4	0.211	0.203	0.148	0.163	0.127
x5	0.214	0.158	0.204	0.229	0.206
Z-score	0.859	0.867	0.911	1.034	0.885
Financial Condition	worrying	worrying	worrying	worrying	worrying

(Data source: Collated according to annual report of the CFLD)

As shown in Table 6, before the bond default, the Z score of the CFLD from 2016 to 2020 was all lower than 1.81, indicating that its financial condition was in a worrying level for a long time, and has been facing great financial risks in the longer term. From the five decomposition factors, X3 (profit before interest and tax/total assets) with the highest weight in the model has a low value, which means the ability of the owners and creditors of the enterprise to make profits by investing the total amount is weak. X4 (total stock market value/total liabilities) has shown an overall downward trend since 2016, which means financial structure is not stable enough. According to the Z-score model analysis, the financial risk of CFLD has existed for quite a long time. In 2020, the changes of macro environment accelerated the occurrence of bond default of the company.

### **AVOIDANCE OF CAPITAL CHAIN BREAK RISK**

As a bond default event caused by the break of capital chain, CFLD not only resulted in the failure of the company's bond holders to obtain the maturity income, but also brought great losses to investors. In order to find out the loopholes in the risk control of the capital chain as soon as possible and avoid operational risks, enterprises should pay attention to the following aspects:

#### **Select the appropriate business model and business strategy**

As the cornerstone of the company's cash flow, the timely payment collection of the main business project is crucial to the stable and sustainable development of the company. Once the company chooses the business model with a long payback cycle, the capital chain will have great risks. At this time, if the company still chooses a more aggressive business strategy, invests in new projects, and the funds for the old projects are not withdrawn, the business ability of the enterprise will be weakened. For the sustainable operation of the enterprise, the company will raise large amounts of debt, continue to increase the available funds of the enterprise through internal and external financing, and the debt repayment pressure of the enterprise is rising, the ability to resist risks must also decline. When the macro environment changes, the uncertainty of the collection of main business items may increase, resulting in the tension of the capital chain.

Therefore, the amount of capital used by the enterprise should match the amount obtained, and the business model and business strategy should match each other. When the main business collection cycle is long, the enterprise operation should not expand blindly, otherwise it will bring great pressure to the capital chain of the enterprise. Since the development cycle of industrial new towns is very long, the corporation can develop some businesses with short cycles to obtain profits, and then use these profits to meet the needs of industries with long cycles, improve the efficiency of capital recovery and relieve the financial pressure of the enterprise.

### **Enhance core competitiveness and create digital marketing**

At present, the real estate industry has entered the stock era, the industry concentration is rising rapidly, the overall profit level of the market is compressed. In the face of these challenges, enterprises should continue to adhere to the priority of quality, in order to build core competitiveness. In terms of construction, enterprises should be committed to creating high-quality products to attract customer groups. In terms of service, enterprises should provide high standards of service, make community service and neighborhood communication more convenient, so as to improve the quality of life of customers. Enterprises should also integrate novel ideas and attract customers through the dual insurance of innovative ideas and quality assurance, so that enterprises can build brands through quality and enhance their core competitiveness with the way of "quality addition".

At the same time, housing enterprises should also speed up digital transformation and upgrading. In real estate development, digital technology can help enterprises reduce costs and improve efficiency. In the link of asset operation, through the whole process of data enabling development, investment attraction, etc., the digital asset operation system is established to achieve value-added services and improve the asset income level. In terms of sales, digital marketing technologies, such as online sales offices and VR house viewing, are used to cope with the impact of the epidemic.

### **Attach importance to the management of enterprise current accounts**

Accounts receivable and other receivables are the main current items affecting the intensity of enterprise capital chain. Accounts receivable is mainly unrecovered main business income. The rising proportion of accounts receivable and the declining turnover rate indicate that the enterprise's ability to collect money is weak, and a large amount of funds are still not collected. The continuous increase of accounts receivable will aggravate the tension of the capital chain of the enterprise. Other receivables is an accounting Title that many companies record the receivable items with uncertain recovery date, amount and high probability of bad debts in this account in it, such as the current funds with holding companies and affiliated companies. For other large-scale receivables, the enterprise should pay close attention to the nature and aging of these funds, determine the possibility of recovery of other receivables.

Therefore, enterprises should strengthen the management of current funds, further analyze the aging and bad debt ratio of accounts receivable and other receivables, analyze

the possibility of capital recovery, continue to strictly manage and control the business of industrial new town, speed up the settlement and payment collection with the government, and promote the return of funds as much as possible to alleviate the tension of capital chain.

### **Build a reasonable debt structure and enhance external financing capacity**

Whether an enterprise has the ability to pay cash and repay debts is the key to the healthy survival and development of an enterprise. Sustained high debt will lead to financial strain and affect the long-term debt repayment ability of enterprises. Especially when most of the debts of enterprises are interest-bearing debts, high debt will lead to the loss of growth potential and financial expansion ability of enterprises, which will lead to the break of capital chain. The introduction of outside money usually can temporarily alleviate the financial difficulties of the company, but if the company itself has been a lot of problems such as limited assets, credit ratings reduced, especially in real estate enterprises reach the "three line", will lead to the company's external financing ability, the company once appear the internal capital insufficiency, the capital chain rupture will most likely occur.

Therefore, enterprises should keep their debt structure at a reasonable level, which can not only meet the capital needs of enterprises to the greatest extent, but also ensure that enterprises have a certain ability to repay debt, and will not affect the subsequent refinancing ability. As the interest-bearing debt ratio of CFLD is relatively high, It can increase the proportion of equity financing by issuing additional stocks and strategic investment introduction, so as to reduce the proportion of debt financing, optimize the financing structure of the enterprise and alleviate the financial pressure of the enterprise.

### **Strengthen the awareness of capital chain risk identification and control**

It is important for enterprise to develop a corporate culture that values financial risk, which can increases the enterprise's sense of distress. Based on the analysis of the above Z-score model, the financial risk of CFLD has existed for a long time. With the passage of time, the capital chain problem was finally exposed and bond default occurred. It can be seen that the company should have the awareness of risk identification and control, combine with its own financial situation, build an appropriate early-warning and response mechanism for capital chain risks, and take measures to prevent and respond to risks.

Firstly, the risk factors of capital chain should be identified to prepare the company to deal with the risks. Secondly, a scientific early warning index system is established to set indicators and corresponding critical values for the identified risk factors. Finally, a coping mechanism should be set up. When abnormal indicators are found, risks and problems can be predicted in advance, and countermeasures can be taken as soon as possible according to the risk warning situation.

## **REFERENCES**



Proceedings of the Association of Collegiate Marketing Educators (2023)

- Fenglian Zhou. (2022).Research on Financial Risk Early Warning Model Based on Big Data. *Financial Engineering and Risk Management* (3). doi:10.23977/FERM.2022.050306.
- Wang Yang, Liu Weimin & Fu Yuwei. (2022).Financial Crisis Warning for Listed Manufacturing Companies in China. *Computational Intelligence and Neuroscience*. doi:10.1155/2022/1439057.
- Ma Rufeï, Ji Qiang, Zhai Pengxiang & Yang Ruibo .(2022).Environmental violations, refinancing risk, and the corporate bond cost in China. *Journal of International Financial Management & Accounting* (3). doi:10.1111/JIFM.12154.
- Xiaomin Ge & Yanming Xu. (2021).\*ST Hainan Airlines Capital Chain Break Cause Analysis. *Journal of Global Economy, Business and Finance* (11).
- Colin Ellis. (2020).Are Corporate Bond Defaults Contagious across Sectors?. *International Journal of Financial Studies* (1). doi:10.3390/ijfs8010001.
- Angelos Kanas & Philip Molyneux. (2020).Do measures of systemic risk predict U.S. corporate bond default rates?. *International Review of Financial Analysis*. doi:10.1016/j. irfa.2020.101553.
- Christian Klein & Christoph Stellner. (2014).The systematic risk of corporate bonds: default risk, term risk, and index choice. *Financial markets and portfolio management* (1). doi:10.1007/s11408-013-0222-9.
- Altman, Edward I. (1968). *Corporate Financial distress and bankrupt*. New York: John wiley & Sons,

## **EXAMINING LEADERSHIP STYLES IN CHINESE TEXTILE ENTERPRISE: THE CASE STUDY OF RESPECT WOLF LTD**

**Liping Zeng, Hunan University of Technology and Business**  
**Min Jin, Hunan University of Technology and Business**  
**Tanaka Murukai, Hunan University of Technology and Business**  
**Mbalaka Albert Mwambala, Hunan University of Technology and Business**

---

The rapid development of China's economy has brought the textile enterprises more opportunities as well as more new challenges and problems. In order to achieve better development on the prospects and benefits, the management and operation mode of the textile enterprises should keep pace with the times. This paper briefly analyzes the leadership styles of the textile enterprises, and discusses the problems and improvement strategies of textile enterprise management in the information age.

This research attempted to examine leadership styles at Respect Wolf Ltd. The study was guided with three specific research objectives namely: to determine types of leadership styles adopted by Respect Wolf Ltd, to evaluate the nature of work relationship between Respect Wolf Ltd Management and its employees and to explore challenges faced by Respect Wolf Ltd based on its leadership styles

Both qualitative and quantitative designs are used to collect, process, analyze and present data. The study involved a sample size of 68 respondents who were selected through purposive and random sampling methods. The study found that, Respect Wolf Ltd practices both, transactional and transformational leadership styles. The study also found that, there is mutual work relationship between top management and subordinates as a result of best leadership practices. The study also found that, there are some challenges in implementing leadership styles at Respect Wolf Ltd. Such challenges include cultural variations of the western leadership theories with Chinese culture. The study recommends for other scholars to conduct similar study outside China for the purpose of having a comparative analysis.

**Key words:** leadership style; work relationship; textile enterprise

### 1. Introduction

Since the Chinese economic reform in 1978, the Chinese government has facilitated foreign investment and opened multiple industries to foreign investors. Following

---

\*Corresponding author. Email: 2545@hutb.edu.cn

Chinese preferential policies, major multinational corporations (MNCs) such as Volkswagen Group, General Motors Company, have either set up their own subsidiaries or established Sino-foreign joint ventures in China. In the past two decades, both China's economic development and the expansion of MNCs in China have been impressive (Cui, 1998). In 2001, China replaced the United States as the leading recipient of foreign investment (House, 2004). By the end of the year 2009, China's passenger vehicle market surpassed that of the United States as the world's largest auto market, and this advantage has been kept till recently. In January 2016, Headquartered in Beijing, The Asian Infrastructure Investment Bank (AIIB), initiated by China, commenced operation and have grown to 87 states members from around the world.

Competition on modern day's global economy is complex and is filled with challenges as well as opportunities (Ireland & Hitt, 2016). With the aim of well preparing to compete and operate in a more unpredictable environment, companies have realized that the organizational performance is no longer solely dependent on the allocation of tangible resources, but rather on the human resources such as effective leaders (Masadeh et al., 2014).

Effective leadership is thus the foundation of competitive advantage for all kinds of organization (Rowe, 2015). Riaz and Haider (2018) also hold the view that, effective leadership plays a crucial role in better performance of the enterprise, because a leader is the one who set up role models to his staff, provide guidance for employees when they face challenges or encounter difficulties, and build up organizational superiority for continuous development (Odumeru & Ifeanyi, 2013).

One of earliest studies of leadership may start with an unique concentration on the theory of "Great Man" (Zareen et al., 2015). This concept was emphasized by Galton (1869) in his book "Hereditary Genius" (Zaccaro, 2017). Proponents of the great man theory believe that leadership is a characteristic ability owned by outstanding individuals. Leaders are born and have certain innate traits that help them become influential.

Later on the leadership theories turned to lay emphasis on behaviours of extraordinary leaders presented with the aims of exploring methods to educate people become effective leaders (Robbins & Coulter, 2012).

With the trend of globalization, China, as the biggest Big Emerging Market, is becoming an indispensable part of the global market. Research indicated that performance of MNCs in China is vitally affected by the interaction between the environment (e.g. Chinese business environment) and the MNCs (e.g. leadership competencies) (Osland & Cavusgil, 2013).

Therefore, in order to have a substantial development in China, more and more MNCs pay increasing attention to fostering their managers leadership competencies under Chinese business culture, particularly for expatriates (Wang, 2014). Both practitioner and theorists thus came up with the questions, such as, Are major Western leadership theories also valid and applicable for Chinese leadership practices? Are effective Chinese leadership behaviours different from effective Western leadership behaviours? This study was therefore interested to answer such addressed questions by examining the leadership styles in Chinese Textile Industry, an experienced studied from the Respect Wolf Ltd.

This research examines the leadership styles in Chinese Textiles Industry, the case study of Respect Wolf Ltd. It was guided with three specific research objectives namely: to determine types of leadership styles adopted by Respect Wolf Ltd, to evaluate the nature of work relationship between Respect Wolf Ltd Management and its employees and to explore challenges faced by Respect Wolf Ltd based on its leadership styles

## 2. Literature review

This section presents the literature review on the contribution of corporate social responsibility on improvement of social welfare. Apart from that, the chapter covers key terms used in the research, theoretical literature review, empirical literature review, research gap and conceptual framework for the research study.

Leadership is an ability of individual or individuals to guide or influence other group of people or community members. (Rick Suttle, 2019), He further argues that, for the sake of achieving organizational goals, both, employers and employees should clearly understand and adheres to the organizations set and agreed ethics. Organization ethics sets what is good and bad in organization daily activities.

Burns (1978) first proposed the concepts of transformational and transactional leadership. According to Burns, transactional leadership is more commonplace than transformational leadership. Bass (1985) reinterpreted Burns' (1978) conceptualization of

leadership by separating transactional and transformational leadership into two independent theories. He further argued that leaders with outstanding performance are both transformational and transactional. In general, transactional leadership lays emphasis on bargaining exchange system between leaders and followers, which includes three dimensions i.e. contingent reward, management by exception active, and management by exception – passive (Bass, 1985, 1997; Limsila & Ogunlana, 2008). Nikezić, Doljanica & Bataveljić (2013) draw a conclusion that transactional leadership is a traditional approach to leadership. Although some empirical evidence supports positive contribution of transactional leadership to employees' performance and organizational outcomes (Epitropaki and Martin, 2005; Zhu, et al., 2011; Rowold & Heinitz, 2007), some negative relations between transactional leadership and organizational outcomes were identified.

Burns (1978) considered transactional leadership as a relationship between leaders and their subordinates which involves a series of exchanges of satisfaction aiming to optimize organizational and individual acquisition (McCleskey, 2014). The root of Burns (1978) concept of transactional leadership comes from social psychological social exchange theory (F. Vito et al., 2014). Under this perspective, transactional leadership is a type of leadership that relies on the prerequisite of reciprocal relationship between leaders and followers. Besides leader-follower exchanges, other notable characteristics of transactional leadership are identified by researchers, such as closely monitoring of followers' behaviours, prompting compliance activities, focusing on deviations and mistakes (Berson, 2013).

Charismatic leadership draws its name from the Greek word charisma, meaning 'the gift of grace, or gifts presented by the gods (Conger, 1989; Weber, 1947). Weber (1947) was the first one who discussed the implications of charismatic leadership for companies (Judge & Piccolo, 2004). He pointed out that political leaders' power was a result of political chaos from which charismatic leaders appear with a new vision that would resolve the crisis (Barbuto, 1997). House (1977) charismatic leadership theory was the first to utilize the concept in contemporary organizational study (Judge & Piccolo, 2004). While there is no universal agreement on the definition of charisma (Avolio & Yammarino, 1990; Halpert, 1990), the idea of charismatic leadership overall is one of the most popular researched leadership theories (Dinh et al., 2014).

Most scholars' attention is directed to the three types of leadership. First, transactional leadership focus on eighty facts: the exchanges that happen between leaders and subordinates (Burns, 1978; Bass, 1999). Second, transformational leaders stimulate subordinates to achieve higher order needs such as self-esteem in terms of Maslow's hierarchy of needs, and motivate followers to reach organizational goals over personal goals (Bass, 1985, 1995). Third, charismatic leadership (Conger & Kanungo, 1998) elaborates why subordinates identify with their respective leader. The three: major leadership styles, i.e. transformational, Charismatics and transactional leadership, have offered a paradigm for leadership research since 1990 (Wu, 2010) .

Due to the globalization, the contemporary working environment has become more culturally diverse. Leadership research thus needs to be performed in an international context (Scandura & Dorfman, 2004). Lord and Maher (1991) also hold that culture cannot be ignored in the content of leadership theory. As one of the most widely quoted studies, made by Gerstner and Day (1994), focusing on the comparisons of leadership styles cross culturally, its result shows that the traits considered to be most, moderately, or least characteristic of leaders varied by participants country or original culture. This argument was supported by Smith, Peterson and Misumi (1994). The result from their event-management and work team effectiveness research shows that leaders in high power distance culture need to take strong decisive actions for the sake of governing their followers, while if leaders come from low power distance culture, a democratic approach could be better.

Therefore, following question emerged: Are the three major leadership styles (i.e. transaction leadership, transformational leadership, charismatic leadership) universally/cross-culturally endorsed? With the aim of answering the questions, Bass (1997) emphasised the universality of the transactional-transformational leadership paradigm by making reference to evidence collected from all continents except Antarctica. He further highlighted that Transformational leadership and transactional leadership may be affected by contingencies, but most contingencies may be relatively small in effect. Dorfman (1996) also pointed out that multiple researches, such as field studies, case histories, laboratory studies and management games have been conducted to support the robustness of the effectiveness of transformation and charismatic leadership.

However, although Bass (1996) makes initial statement enhancing the universality in the full range leadership model which includes three leadership styles (i.e. Transformational leadership, Transactional leadership and Non-leadership), he still acknowledges the need to make adjustments to the paradigm in order to be applicable in a non-western context. Subsequently, Dorfman and associates (1997) made a comparison of leadership styles in Western and Asian countries. The result shows that leaders with supportive, contingent reward and charismatic behaviours are culturally universal, whereas cultural specificity is revealed on the leaders with directive, participative and contingent punishment behaviours. Following this result, an investigation made by Den Hartog et al. (1999) found that several characteristics, e.g. risk taking, compassionate, enthusiastic, unique, cautious, sensitive, ambitious, self-sacrificial, wilful, for charismatic/transformational leaders with excellent performance are culturally contingent, i.e. in some countries they are seen as contributing to outstanding leadership, whereas in others they are seen to impede such leadership. While some attributes including trustworthy, positive, intelligent, excellence oriented, foresight are universally applicable in all cultures.

In conclusion, the majority of research was conducted in developed countries while lack of understanding of the leadership concepts in non-western countries still remains. (Fein, Tziner, & Vasiliu, 2010; Shahin & Wright, 2004). Even though business studies in developing countries are increasing, western mind-set continues prevailing in the field of business theory and practice (Hopper et, al., 2009). Due to the demonstration from cross-cultural psychological, sociological, and anthropological research, that many cultures do not share western assumptions, an urgent need raises to further investigate the major leadership styles in different countries (Smith & Peterson, 1988), to explain differential leader behaviour and effectiveness across cultures (House, 1995,).

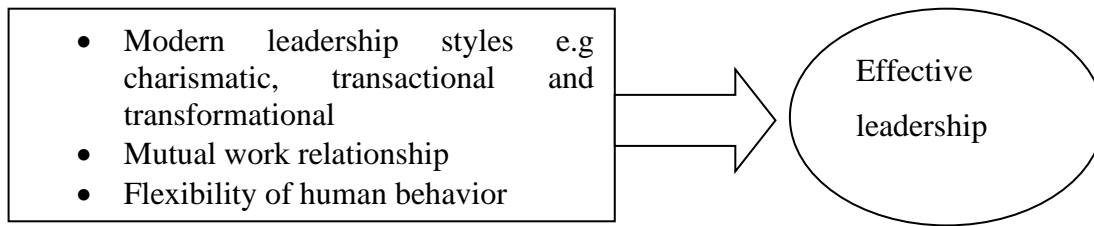
In China, one unpublished studies is mentioned by Bass (1997) with the aim of accessing the availability of transformational leadership in a Chinese state-owned enterprise (SOE). Later on, Li and Shi (2003) also demonstrated that the construct validity of transformational leadership is acceptable in China. However, these researches are only focus on transformational leadership, relatively few studies examine all three major leadership styles (i.e. transformational, Charismatics and transactional leadership) which prevail in western leadership concept in China. More validation studies thus need to be performed, especially in China and other Confucian Asian countries (Wang, 2014).

### **3. Data analysis and presentation of study findings**

This section presents analysis as well as the discussion of the findings of the research on examination of leadership styles. Specifically, the research attempted to determine leadership styles practices, the nature of work relationship between leaders and subordinates and explore challenges faced by Respect Wolf Ltd in implementing its leadership styles.

Conceptual framework on Leadership styles in Chinese Textile Industry

Figure 1: Conceptual frameworks on Leadership styles at Respect Wolf Ltd  
 Independent variables Dependent variable



Source: Conceptualized by Researcher. 2022

Both descriptive (Frequency (N) and Percentage (%)) and inferential (regression analysis) are performed and presented using test statistic parameters in tables and figures. However, qualitative data were subjected to content analysis and the findings presented in narrative form. Generally, the chapter is organized in different section, comprise demographic information profile, and results from specific research objectives. The chapter concludes by providing the summary of the findings.

### 3.1 Demographic information of the respondents

This part presents the characteristics of the respondents who participated in this study such as gender, age, level of education and number of years working in company of the respondents in the study area. A total of 60 (100%) respondents participated in this study and 8 key informants were interviewed. The researcher sought this information in order to discover meaningful and actionable insight to assist in making better decision.

#### 3.1.1 Distribution respondents by gender

The question about sex was asked to know if gender difference caused any differences in attitude, knowledge and norms towards leadership styles in the study area. The result in the figure 4.1 revealed that 38(55.8%) of respondents were male, and 30(44.1%) of the respondents were female, as figure 1 summaries.

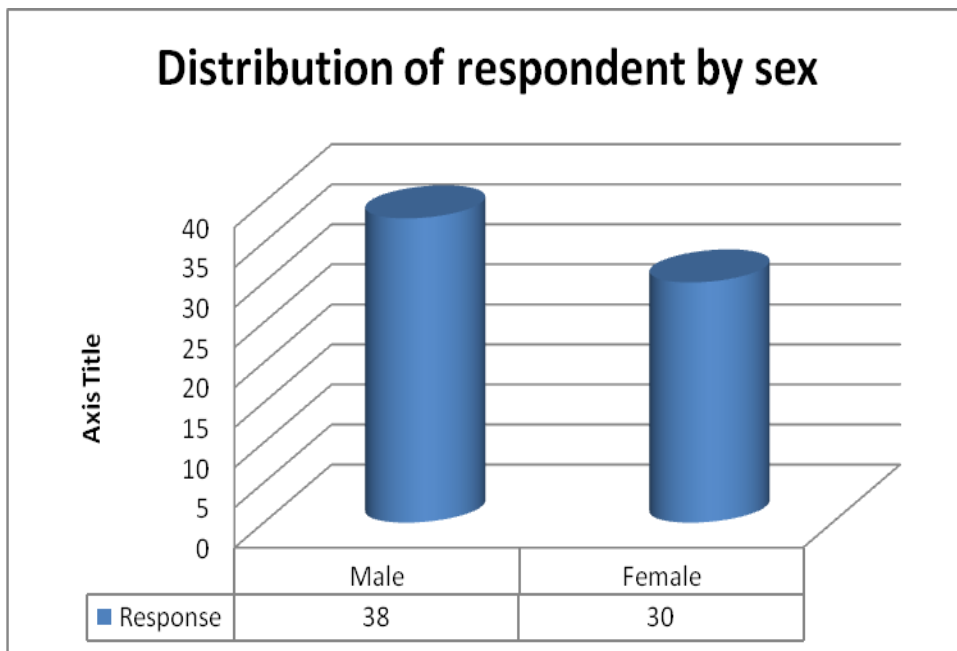


Figure 2: Distribution of respondent by sex: (Source: Field Data 2022).

Following the findings, of the study as is indicated in the figure 2 an aspect of gender was considered as to ensure fair representation of the study population in the study. This however

should not bypass the difference of the representation which shows male respondents to be many compared to female ones.

### 3.1.2 Respondent's by Age group

Respondents were asked to identify ages by selection of the appropriate age groups they belonged to, from various categories provided. It was done so, in order to increase more understanding of the respondents personalities particularly on their experience and practice of leadership styles in the area. The age distribution of the respondents is presented into seven groups. The result indicates 10(14.7%) of the respondents were aged between 18-22, 14(20.5%) of the respondents were aged between 23-27, 16 (23.5%) of the respondent were aged between 28-32, 11(16.1%) of the respondent were in aged between 33-37, 10(14.7%) of the respondents were aged between 38-42, 5(7.3%) of the respondents were aged between 43-47 and 2 (2.9%) of the respondents were aged 48 and above.

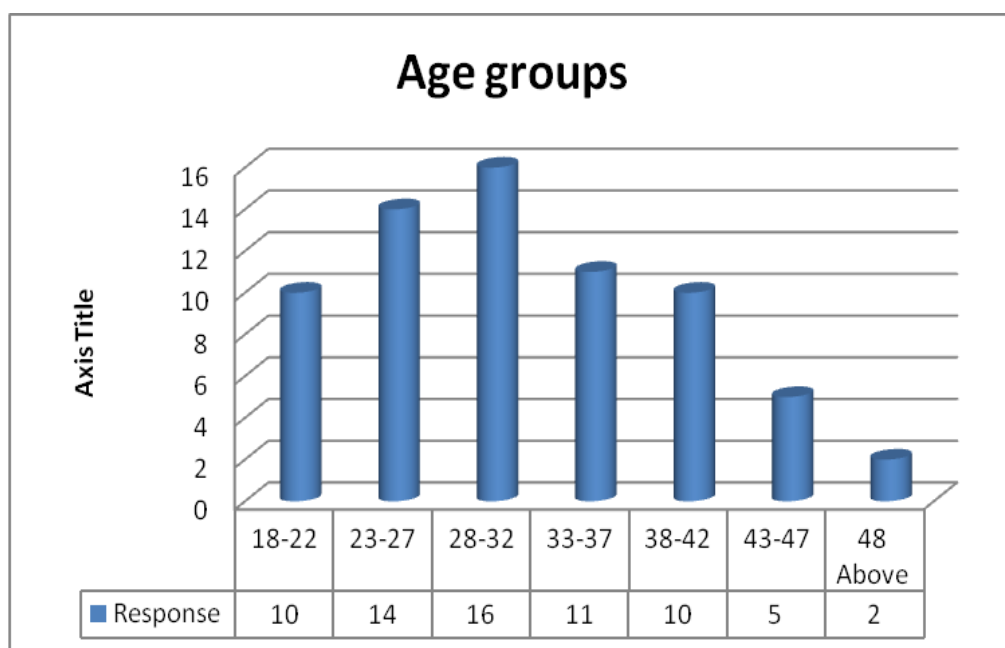


Figure 3: Age groups: (Source-Field Data (2022))

The finding indicates that respondents who participated in this study were mainly young people, middle age, this is because most of them can be easily accessed and read to be interviewed while small percentage of respondents were aged between 43-47 and 48 above were few.

### 3.1.3 Respondents distribution by education level

The question on the level of education was quite important to scale level of understanding among respondents. The data was also deemed important in examining leadership styles in the study area. The result reveals that 5(7.3%) of the respondents were holding elementary education, 8(11.7%) of the respondents were holding secondary education, 16(23.5%) of the respondents were holding certificate education, 18 (26.4%) of the respondents were holding Diploma education, 10(14.7%) of the respondents were holding first degree, 5(7.3%) of the respondents were holding Master's degree and 1(1.4%) of the respondents were holding PhD as Figure 4 represents here in.

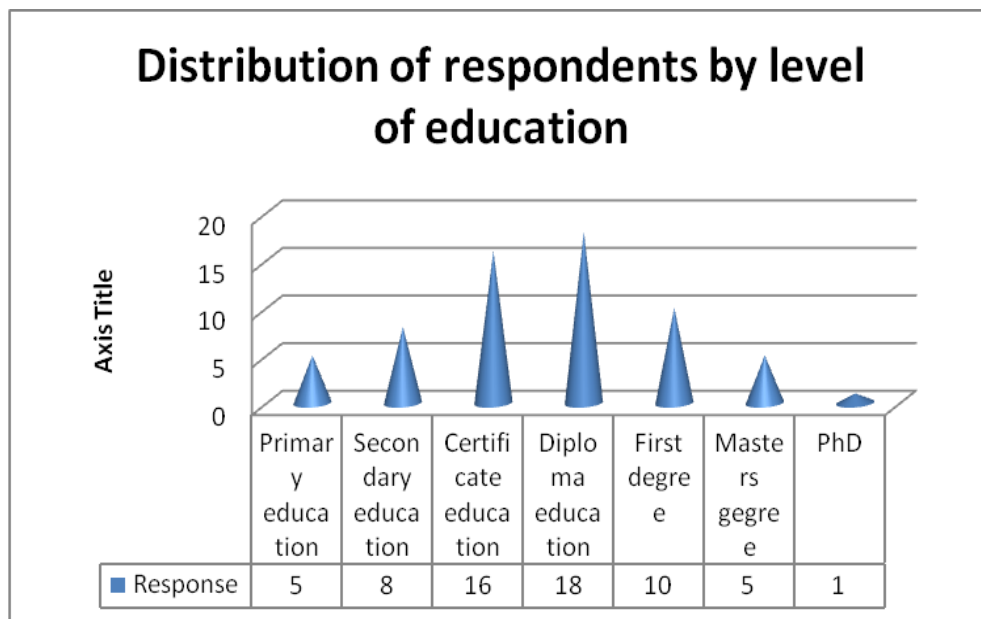


Figure 4:-Distribution of respondent level of education: Source, Field Data (2022)

The finding indicates several respondents who participated in this study were certificate holders, diploma holders and first degree holder while small percentage of the respondents participated in this study were primary education holder, master’s degree holders and PhD holders. This statement is to some extent concur with Tanzania Commission for Universities policies which among others prioritize the employment of staffs with higher level of education particular from bachelors level and above for the academic staffs and diploma as minimum qualification for technical staffs.

#### 3.1.4 Number of years spend working with the Company

The result presented in the Figure 5 that 14(20.5%) of the respondent indicates that number of years were ranging less than one year, 24(35.2%) of the respondent were ranging 1-5 years, 21(30.8%) of the respondents were ranging 6-10 years and 9(13.2%) of the respondents were ranging 11 above years as summaries in the figure 5. Engaging respondents from varying age groups aimed to obtain detailed information with the regard to leadership styles in the study area. It was believed that those with higher working experience could provide more information as per their experience with the company.



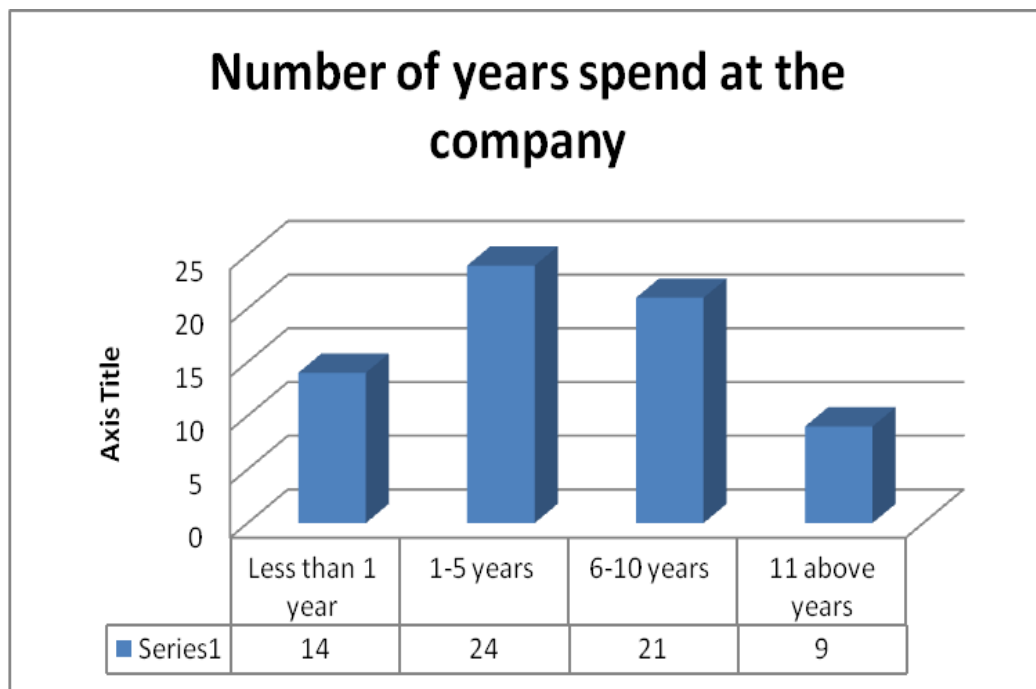


Figure 5: Number of years spends at the company: (Source: Field Data (2022))

### 3.2 Employee perception on leadership styles (LS)

#### 3.2.1 Awareness on LS among employees

Figure 6 presents findings on the awareness of leadership styles among the employees in order to understand and measuring the awareness of employee on leadership styles. The findings indicate that 61 (89.7%) of the respondents agreed that were aware with leadership styles while 7(%) of the respondents disagree that were not aware with leadership styles.

The result indicate that majority of the respondents who participated in this study were aware about leadership styles due to the fact the most of leadership styles are normally practised by both leaders and employees in their daily company production activities as a result the employees become aware in regard to the initiatives and efforts made by company. Small percentage of the respondents were disagree that they were not aware about the practice of leadership styles at the work place.

#### 3.2.2 The practice of leadership styles

The researcher aimed to understand and assess extent in which Leadership styles are is practiced. The results in figure 7 reveal that 45(66.1%) of the respondents agreed on the practice of leadership styles more frequently and 21(30.8%) of the respondents agreed on the practice of LS frequently and lastly 2(2.9%) of the respondents disagreed on the frequent practice of leadership styles.

The findings revealed that majority of the respondents participated in this study said more frequently Respect Wolf Ltd has been practicing leadership styles due to the fact that the modern management of people emphasize the adoption of the best and friendly leadership styles to foster the implementation of organizational goals. Small percentage 2(2.9%) of the respondents were said that the leadership styles practices are not frequently practiced.

The study was further interested to know which leadership styles adopted and being implemented in the study area. Majority of the interviewed respondents enlisted transformational leadership style, 58(85.2%), followed by transactional leadership style, 10(14.7%).

### 3.3 The Nature of work relationship between leaders and subordinates

Employee relationship at work place can be perceived positively if the company leadership create favorable environment that enable employees to be benefited from organization positively through provision of skills, job security and recognition of employees to the work done. The respondents were asked to indicate whether employees perceive work relationship positively or not. The findings revealed that 58(85.2%) of the employees perceive work relationship between leaders and employees positively whereas 10(14.7%) of the respondents disagreed that employees perceive work relationship between leaders and employees positively.

The result indicates that majority of the respondents participated in this study have been agreed that employees perceived leaders and employees work relationship positively by participating and enabling them to increase job security, acquire new skills and knowledge, employees concerns identified and solved on time, recognition, rewarding and promotion. Also a 10(14.7%) of the employees perceive work relationship negatively. To cement this, respondents were asked to enlist reasons on their reasons as shown on table 1 below.

Table 1: Reported Nature of work relationship between leaders and subordinates

S/N	Reported Nature of work relationship between leaders and subordinates	Frequency	Percentage
1	Leaders engage subordinates in decision making	18	26.5
2	Employees are given privilege to express their grievances to top management	16	23.6
3	Employees are viewed as important to management	12	17.6
4	It is always the top management who plan everything in organization	12	17.6
5	Employees consider themselves to owe the company in fulfilling their duties	10	14.7
	<b>Total</b>	<b>68</b>	<b>100</b>

(Source: Field Data (2022))

### 3.4 Challenges faced by RWL in implementing its leadership styles

The respondents were asked to enlist challenges facing the Respect Wolf Ltd in implementing various leadership styles in the study area. Likert scale strongly agree, agree, neutral, disagree and strongly disagree was used to rate their responses. The findings on table 2 indicate that 41.7% strongly agreed that Employees perception on CSR is positive because people are

employed, while Employees sometimes abuse being involved in intensive decision making in organization. 5.6% of the respondent strongly disagreed that, Employees are given privilege to participate in decision making power 44.4% of the respondent strongly agreed that Cultural diversity is a scam while 3.2% of the respondents strongly disagreed that Leadership styles program increases creativity among employees.

The study also found that, 44.4% of the respondents strongly agreed that employees are given privileges to participate in decision making while 4.2% of the respondents strongly disagreed that employees are given privileges to participate in decision making. Also 1.6% of the respondents strongly agreed that employees viewed company implement leadership enable employees improve their living standard while 44% strongly disagreed.

Table 2: Challenges faced by RWL in implementing its leadership styles

Statement (N=68)	5	4	3	2	1
Western leadership theories are not effective in Chinese culture	41.7	37.5	11.1	4.2	5.6
Employees sometimes abuse being involved in intensive decision making in organization	44.4	27.8	18.1	7	3.2
Employees are given privilege to participate in decision making power	44.4	41.7	5.6	4.2	4.2
Cultural diversity is a scam	1.6	4	7.4	43	44
Sometimes managers are not fair to subordinates	47.2	43.1	4.2	2.8	2.8
Leadership styles program increases creativity among employees	59.7	23.6	11.1	3.6	2

*Source; Field Data (2020)*

#### 4. Conclusion

The general objective of this study was to examine leadership styles in Respect wolf Ltd. Specifically, the study aimed to explore leadership styles practiced in the study area, examine the nature of relationship between leaders and subordinates and determine challenges facing Respect Wolf Ltd in implementing leadership styles. The study found that, Respect Wolf Ltd practices both, transactional and transformational leadership styles. The study also found that, there is mutual work relationship between top management and subordinates as a result of best leadership practices. The study also found that, there are some challenges in implementing leadership styles at Respect Wolf Ltd. Such challenges include cultural variations of the western leadership theories with Chinese culture.

This research concludes that, the western leadership theories are effective and practical in Chinese environment, with minimal adjustment.

## References

- Ardichvili, A., & Gasparishvili, A. (2015). Leadership profiles of managers in postcommunist countries: A comparative study. *Leadership & Organization Development Journal*, 22(2), 62–69.
- Avolio, B. (1999). *Full leadership development: Building the vital forces in organizations*. Thousand Oaks: Sage.
- Avolio, B. J., & Yammarino, F. J. (2002). Reflections, closing thoughts, and future directions.
- B. J. Avolio & F. J. Yammarino (Eds.), *Transformational and charismatic leadership: The road ahead*,
- Bansal, P., & Corley, K. (2011). The Coming of Age for Qualitative Research: Embracing the Diversity of Qualitative Methods. *Academy of Management Journal*
- Bass, B. M. (1997). Does the transactional–transformational leadership paradigm transcend organizational and national boundaries?. *American psychologist*.
- Bataveljić (2013); Chang, Bai & Li (2015); Wu (2010); McCleskey (2014); Bass (1997) Compliance with established work standards/guidelines; Compliance behaviour
- Masa'deh, Obeidat & Tarhini (2016). *Leadership styles in western countries*. Progress publisher: Moscow
- Zareen et al. (2015). *The modern management of People in Developed countries*. Heinemann Books Ltd: Toronto
- Wang (2014). *The Chinese Leadership Patterns, An assessment*. Wuhan Publishers : Wuhan
- Chang, Bai & Li (2015). *Modern Decision making in Organizations*. McGraw Publishers
- Vito et al. (2014). *On seek of leadership styles , a global perspective*. Horizon Publishers : New York
- Rowold & Heinitz (2007). *The challenges of modern leadership*. PWC : Kuala Lumpur
- Kothari, C. R. (2008). *Research Methodology, Methods and Techniques* (2nd ed., pp. 109-110). New Delhi: New Age International (P) Limited
- Krishna swami, O.R. (2003). *Methodology of Research in Social Science*. Himalaya Publishing House, New Delhi, India.
- Mandina, S. P, Mararire, C. V and Masere, V. S (2014): “Effectiveness leadership in Enhancing Company Image” *Journal of Applied Business and Economic*; Vol. 16 (3).
- Mbirigenda & Msoka (2015) *Community Development through Corporate leadership: Some Issues from Selected Companies in China*
- Mugenda, O.M., & Mugenda, A.G. (2003). *Research methods: Quantitative and Qualitative approaches*. Nairobi: Acts Press.
- Copper, J.(2018). *Management*. Progress Publishers: Moscow
- Croots, J. (2015). *Management and Leadership, Common Concepts*. Ammambok Ltd, Pretoria
- James,X. (2016). *Modern Management, Introduction*. Heinemann Books Ltd, Nairobi

## Appendices

### **Appendix 1: Questionnaire for managers and heads of production lines**

Dear respondents,

I request for your kind cooperation in responding to this questionnaire for the completion for this study and your honest answers to questions that will be asked are important for the results of this study to reveal the situation on the contribution of corporate social responsibility on the improvement of social welfare. I would like to assure you that confidentiality will be maintained throughout the study.

#### **Section A: Demographic information**

The section below you ticks the most appropriate option that best describes you for faster completion for this inquiry.

1. Gender

- 1. Female ( )
- 2. Male

2. Age of the respondents

- 1. 21-30
- 2. 31-40 ( )
- 3. 41-50
- 4. 51+

3. Level of education

- 1. Elementary education
- 2. Certificate
- 3. Diploma ( )
- 4. First Degree
- 5. Masters degree
- 6. PhD

4. For how long have you been working at Respect Wolf Company?

- 1) Less than one year
- 2) 1-5 years ( )
- 3) 6-10 years
- 4) Above 11

**Section B: Leadership styles (Employee perception on leadership styles)**

5. Are you aware of leadership styles?

- 1. Yes
- 2. No ( )

6. Are they practiced by Respect Wolf Ltd?

- 1. Yes
- 2. No ( )

7. If yes, which types of leadership styles practiced by your company?

.....  
 .....  
 .....

**Section C: Nature of work relationship between leaders and subordinates**

S/N	Nature of work relationship between leaders and subordinates	1	2	3	4	5
8	Leaders engage subordinates in decision making					
9	Employees are given privilege to express their grievances to top management					
10	Employees are viewed as important to management					
11	It is always the top management who plan everything in organization					
12	Employees consider themselves to owe the company in fulfilling their duties					

**Section D: Challenges faced by RWL in implementing its leadership styles**

13. Are there any challenges facing RWL in adopting and impeneting its leadership styles?

- 1. Yes
- 2. No ( )

14. If the answer is yes above, then enlist such challenges below

- 1.....
- 2.....
- 3.....
- 4. ....

**Appendix 2: Questionnaire for Employees**

Dear respondents,

I request for your kind cooperation in responding to this questionnaire for the completion for this study and your honesty answers to questions that will be asked are important for the results of this study to reveal the situation on the contribution of corporate social responsibility on the improvement of social welfare. I would like to assure you that confidentiality will be maintained throughout the study.

**Section A: Demographic information**

The section below you ticks the most appropriate option that best describes you for faster completion for this inquiry.

1. Gender

- 1. Female ( )
- 2. Male

2. Age of the respondents

- 1. 21-30
- 2. 31-40 ( )
- 3. 41-50
- 4. 51+

3. Level of education

- 1. Elementary education
- 2. Certificate
- 3. Diploma ( )
- 4. First Degree
- 5. Masters degree
- 6. PhD

4. For how long have you been working at Respect Wolf Company?

- 1) Less than one year
- 2) 1-5 years ( )
- 3) 6-10 years
- 4) Above 11

**Section B: Leadership styles (Employee perception on leadership styles)**

5. Are you aware of leadership styles?

- 1. Yes
- 2. No ( )

6. Are they practiced by Respect Wolf Ltd?

1. Yes

2. No ( )

7. If yes, which types of leadership styles practiced by your company?

.....  
 .....  
 .....

**Section C: Nature of work relationship between leaders and subordinates**

S/N	Nature of work relationship between leaders and subordinates	1	2	3	4	5
8	Leaders engage subordinates in decision making					
9	Employees are given privilege to express their grievances to top management					
10	Employees are viewed as important to management					
11	It is always the top management who plan everything in organization					
12	Employees consider themselves to owe the company in fulfilling their duties					

**Section D: Challenges faced by RWL in implementing its leadership styles**

13. Are there any challenges facing RWL in adopting and impeneting its leadership styles?

1. Yes

2. No ( )

14. If the answer is yes above, then enlist such challenges below

1.....  
 2.....  
 3.....  
 4. ....

# **COMPETITIVE ADVANTAGE THROUGH AI AND BIG DATA TECHNOLOGY IMPLEMENTATION**

**Goldar Lenjeu Chefor, University of Mississippi, USA**

---

## **ABSTRACT**

This paper extends the literature on the strategic advantages of big data and AI technology in marketing, by developing a conceptual model for the relationship between these resources and competitive advantage. The study argues that complementization of organizational resources with big data and AI technology resources could bring about a new set of dynamic capabilities called “firm intelligence capabilities”. Drawing from the resource-based view of the firm, a series of propositions about how AI and big data tech resources can be transformed to competitive advantage are advanced. Implications for theory and practice are discussed as well as directions for future research.

## **INTRODUCTION**

One of the salient goals of firms is to determine how to leverage emerging technologies for competitive advantage. The questions firms seek to answer are: which technologies are causing rapid changes in their business environments? Are these technologies worth adopting? How can these technologies create sustained competitive advantage? In every business era, practitioners and scholars have investigated the prevalent technologies to answer these questions.

Recently, artificial intelligence (AI) and big data technologies are greatly impacting business practices. These technologies are used in industry sectors like health, finance, military, banking, supply chain, energy, retail, transportation etc. The proliferation of these technologies is evident in the industry wide positive attitude towards them. Recent market research reveals that over 50% of US organizations and their executives show a favorable attitude towards AI and big data technologies, believing that these technologies can provide a strategic advantage for their firms (Deloitte, 2021; PwC, 2021). Several firms also worry about being disadvantaged if they fall behind the adoption of AI and big data technologies (PwC, 2021).

Given these observations, it is no surprise that the marketing literature is now dense with inquiries about how AI and big data can improve business processes. Several studies find evidence for the advantages of these technologies to the firm but inquiries into whether and how they provide competitive advantage are still lacking. Further, AI and big data are very complimentary technologies. Firms are starting to use AI and big data together because of the superior advantage that their combined use may provide (Rabah, 2018). Yet, there is scant research investigating whether using these two technologies together provides an added competitive advantage. Finally, even though AI and big data resources are primarily applied for marketing purposes, the marketing literature does not provide much insight concerning



how and if the marketing function can exploit these resources optimally to improve the firm's competitiveness.

Drawing on the Resource Based View (RBV) and dynamics capabilities theories, this study addresses this void by answering the following questions: (1) How can AI and big data technologies provide competitive advantage for firms? (2) what is the role of the marketing department in transforming AI and big data technology resources to competitive advantage. Specifically, a conceptual framework is built around the propositions that AI and big data technologies together create competitive advantage when combined with other organizational resources (human resource capabilities and intelligence management resources). The competitive advantage comes from the enhancement of firm intelligence systems and is most likely achieved when the firm's marketing employees are empowered with cross functional skills, and when the firm establishes seamless collaboration channels between the firm's intelligence department and the Chief Marketing Officer.

The conceptual framework provided in this study has several exciting implications for both marketing theory and practice. First, the RBV framework is applied to emerging technology resources and extended by demonstrating how organizational resources are used to improve the development of truly unique resource advantage from these technologies. Second, the role of the marketing department in establishing competitive advantage is highlighted. Marketing practitioners are guided concerning the coordination of organizational resources and decision making related to emerging technology adoption in a way that favors the creation of competitive advantage.

The following sections provide a brief review of the literature on the advantages of AI and big data technologies, followed by a conceptual model demonstrating how AI and big data technology resources can be transformed to competitive advantage. The final section discusses the implications of this framework for practice and theory, as well as some directions for future research.

## CONCEPTUAL BACKGROUND

### **Strategic advantages of implementing AI and big data technologies**

#### *Big data*

Researchers have defined big data as “the information asset characterized by such a high Volume, Velocity and Variety to require specific technology and analytical methods for its transformation into Value” (Mauro et al, 2015; Erevelles et al, 2016; McAfee et al, 2012; Lycett, 2013). The usefulness of big data technology lies in the possibility of separating what is accurate, relevant, and structured from what is inaccurate, irrelevant, and unstructured. Thus, big data resources could be a weakness or strength for the firm (Wernerfelt, 1984).

Some practitioners and scholars formerly believed that big data's potential and consequently firms' excessive investment in big data was exaggerated. However, the implications of big data for marketing decisions have been evident in industry success (Wedel and Kannan, 2016). In the retailing industry for example, several companies are leveraging big data technology resources to improve recommendation systems and security systems. Meanwhile in manufacturing and operations, big data supposedly helps improve supply chain

visibility, automation, and predictability (Davenport et al, 2010; Dremel et al., 2020; See Wamba et al, 2017 for a detailed review).

While many firms still delay in implementing big data technology, firms that adopt it sometimes fail to transform the resource into value (Erevelles et al, 2016). The value of big data technology is leveraged when the firm hones the physical, human, and organizational capital necessary to collect, store and extract insight from the data (Erevelles et al, 2016). According to Wendel and Kannan (2016) firm's benefit the most from big data when they (1) have encrusted data-driven decision-making systems and culture, (2) have an organizational structure that facilitates the company wide access to and application of data and data analytics, and (3) when the firm's marketing analysts have data analytics expertise and substantive marketing knowledge.

Firms that can adequately exploit big data technology may gain several advantages including: an increased ability to understand the dynamics of the environment in which they operate, and to sense potential marketing opportunities and threats (Cao, Duan, & El Banna, 2019), increased business excellence and innovation (Merendino et al, 2020), and increase ability to include consumer preferences into product development (Ghasemaghaei and Calic, 2020).

### *Artificial Intelligence*

In marketing, AI has been defined as technology and software that are able to learn from experience and mimic human intelligence, especially with respect to cognitive functions related to problem solving and learning (Simmons and Chappell, 1988; Huang and Rust, 2018; Syam and Sharma, 2018). Some researchers extend this definition to include superhuman behaviors like emotional, creative, planning, self-awareness, common sense, and predictive capabilities across several domains in real time (Kaplan and Haenlein, 2019; Bock et al, 2020).

In marketing, AI is being applied to enhance interactive and media rich environments, automated personalization and behavioral targeting systems, recommender systems, customer engagement, search engine optimization, and optimization of promotions, (Chung et al, 2009; Rust and Huang, 2014; Chung et al, 2014; Ma and Sun, 2020). Campbell et al (2019) provide a detailed outline of how AI can improve the 9 stages of the marketing plan.

Even though AI is still used with caution (Jarek and Murazek, 2019; Wirth, 2018), AI tremendously influences the firm's marketing mix, impacting both consumer value delivery and marketing organization and management (Campbell et al 2019; Davenport et al, 2020). Studies have shown a direct impact of AI on strategic decision making (Eriksson and Bonera, 2020), due to the technology's ability to reduce uncertainty, and make better sense of big data by processing huge amounts of it objectively, quickly, and tirelessly (Borges et al., 2020, Dwivedi et al., 2019, Mikalef and Gupta, 2021). When applied in conjunction CRM, AI improves employee creative capabilities and reduces the need for coaching resources (Chatterjee et al, 202; Luo et al, 2021).

The ultimate goal of the firm is survival. Survival comes through sustained competitive advantage. Resources can be advantageous when they improve businesses processes, reduce waste, and increase short-term profits. However, not all resources are able to provide competitive advantage. The following section explores the potential for AI and big data technology resources to provide competitive advantage.

## **Where does the competitive advantage in AI and Big data come from? A resource-based View.**

The resource-based-view of the firm (Wernerfelt, 1987) suggests that the desirable resource position for a firm is one that directly or indirectly makes it harder for competitors to catch up. This position relies on the properties of the firm's resources and their mode of acquisition. Firms are better off looking for attractive resources that can be used as steppingstones to acquire further resources and extend to multiple markets. Barney (1997) extends the resource-based view by positing that sustained competitive advantage is accrued when the firm's resources are valuable, rare, imperfectly imitable, and non-substitutable (VRIN). Valuable resources improve the firm's bottom line making them more competitive. Rare resources are not easily accessible to everyone because they are not abundant. Imperfect imitability and non-substitutability refer to the quality of the resource that makes it difficult to be replaced by resources available to other firms (Barney, 1997). The resource desirability and VRIN views both suggest that not all resources are worth adopting.

AI and big data can be considered valuable and attractive to some extent because of the potential revolutionary effects they have on organizational processes. However, firms still lack the competence that is required to exploit them fully (Bharadwaj et al, 2013; Davenport et al, 2012). This lack of expertise could reduce the desirability of AI and Big data. Also, even though they currently provide unique advantages, each of these resources are only marginally non-substitutable. So long as technology development continues, every intangible technological resource is potentially substitutable (Barney, 1997).

Big data resources are considered abundant because data are not rare. They are called big data because of they come in large volumes and are available for free or at low cost to whoever is interested. The technology used to process big data is also neither rare nor imperfectly imitable. (Baganza et al 2017; Shah, 2022). What is rarer is the availability of skilled professionals, and organizational structures that enable the quick and objective processing, dissemination and application of big data and the insights gotten from big data analytics (Wedel and Kannan, 2016; Everelles et al, 2016). Also, the ubiquitous industry use of chatbots, virtual assistants and other AI technologies suggests that AI technologies are neither rare nor inimitable.

Organizations seeking to gain competitive advantage cannot apply any of these technologies alone for that purpose. Each of the technologies need to be used in coalescence with other organizational resources. The following subsections propose different ways in which big data, and AI technology resources can be applied by the firm to obtain competitive advantage.

### *Combining the two*

AI and big data are very complimentary technologies. The combination of these two technologies is inescapable and beneficial as the world proceeds into the 4th industrial revolution (Rabah, 2018). The amount of data being created daily significantly surpasses the capability of data analytics teams which firms currently rely on for data insights (McKinsey, 2011). Compared to humans, AI is not limited by information overload and processing speed requirements. Compared to other advanced technology like robots, AI is not limited to a programmed set of instructions. AI autonomously perceives its environment and acts in real

time. As companies continue to retain more data, AI technologies present the most substantive way to make sense of the data. AI in turn relies significantly on extensive data to produce rich insights (Hassani, Huang, and Silva, 2018; Singh, Rathore and Park, 2020; Corea, 2019). The symbiotic relationship between the two technologies (Li et al, 2022; Kumar, 2018; Davenport et al, 2020) suggests that companies that implement only one of them will seriously lag behind companies that adopt both

From an RBV perspective, using AI or big data technologies in isolation will provide a resource advantage (because of its benefits), but an easily accessible one. Resource advantage may not be sufficient – the firm needs to possess distinctive capabilities to make better use of its resources (Penrose, 1959). Companies that can combine the two create a new resource with a greater tendency to provide superior value and distinctive capabilities. This augments chances of obtaining resource-based competitive advantage.

#### *Embedding them in the organization through complementarity*

Marketing scholars have devoted considerable time to understanding how the firm can leverage resources to create competitive advantage in studies linking intangible assets to capabilities and firm performance (Srivastava et al., 1998, Hunt & Morgan, 1995). As outlined in the preceding discussion, AI and big data hardly meet the resource-based criteria for competitive advantage when used in isolation. Even when applied together, the new resource formed, though more unique, is not completely shielded from competitive acquisition and imitation. Thus, like with other IT-related resources, the value provided by AI and big data technology resources is only short-lived (Clemons & Row, 1991).

Powell and Dent-Micallef (1997) demonstrated that the value of IT-related resources emerges only when they are embedded in an organization through resource complementarity and co-specialization. AI and Big data can be paired with an organization's intelligence activities to produce superior firm specific capabilities which will be harder for competitors to copy. The distinctive capability that provides competitive advantage then comes from the combined benefit of adopting sophisticated technologies and synergizing these technologies with the organization's intelligence processes (Bharadwaj, 2000).

Organizational intelligence activities that can complement AI and big data technologies revolve around the creation of departments that coordinate intelligence acquisition, dissemination, and application, the establishment of a data-driven decision making culture, the establishment of an organizational structure that facilitates the company wide access to and application of data and data analytics, and the obtention of marketing analysts with data analytics expertise as well as substantive marketing knowledge (Wedel and Kannan, 2016)

#### *Creating a set of dynamic capabilities*

A firm's resources may only be as useful to its growth as they are relevant at the time in which the firm operates. Firms operate in very unstable environments, driven by dynamism in competition, technology, the market, and the economy. In such market environments, the benefits of VRIN resources with distinctive capabilities may not persist over time and hence cannot be a source of sustainable competitive advantage (Teece et al, 1997).

Theories of dynamic capabilities (Teece et al, 1997; Teece, 2014) provide an adequate lens from which to view how AI and big data go beyond being a source of distinctive capabilities to being a source of sustainable competitive advantage.

Dynamic capabilities refer to the firm's ability to exploit its resources to address rapidly changing environments ( Eisenhardt and Martin, 2000; Teece et al 1997). Because market changes could be moderately dynamic or high velocity (Eisenhardt and Martin ,2000) the power of a firm's dynamic capabilities is in being able to rapidly develop situation-specific new knowledge. This is where AI and big data technologies come in, (1) providing real-time huge amounts of precise knowledge about specific things at high velocity, (2) processing and learning from the knowledge in real-time to provide timely actionable insight, and (3) securing all of this intelligence from cyber-attacks (Ma and Sun, 2020; Davenport et al, 2020).

From the review above, this study suggests that embedding AI and big data in an organization through complementarity can enhance a higher order set of capabilities (Wang and Ahmed,2007) called "firm intelligence capabilities". These capabilities allow the organization to be alert to market changes, and quickly change in response. Thus, they provide a higher level of protection against competitive imitation. In this way the firm can accrue sustained competitive advantage and increased likelihood of survival (figure 1)

AI and big data enhance the following properties of a firm's intelligence capabilities:

- (1) Adaptive capability: Enhanced firm intelligence increases the firm's flexibility and proactivity, allowing the firm to sense, seize and capitalize on emerging marketing opportunities and threats (Chakravarthy, 1982; Teece,2014). AI and big data technology make this feasible by providing efficient prediction of market trends and facilitating the understanding of customers' needs.
- (2) Absorptive capability: Enhanced firm intelligence provides the preliminary knowledge that is required at every point in time for the firm to easily acquire further knowledge. Cohen and Levinthal (1990) refer to this capability as absorptive capacity. Firms with higher absorptive capacity are more likely to evade "lock-out"- a situation in which the firm is unable to learn from the external environment or even integrate and exploit acquired external information and transform it into firm-specific advantageous knowledge. Big data and AI make this feasible by promoting knowledge creation, learning and absorption.
- (3) Innovative capability: Innovative capability refers to a firm's ability to develop new products and/or markets, by aligning strategic innovative orientation with innovative behaviors and processes (Wang and Ahmed 2007). AI and big data, through their improved learning capabilities will directly improve the ability to discover gaps and exploit them to develop new products or markets.

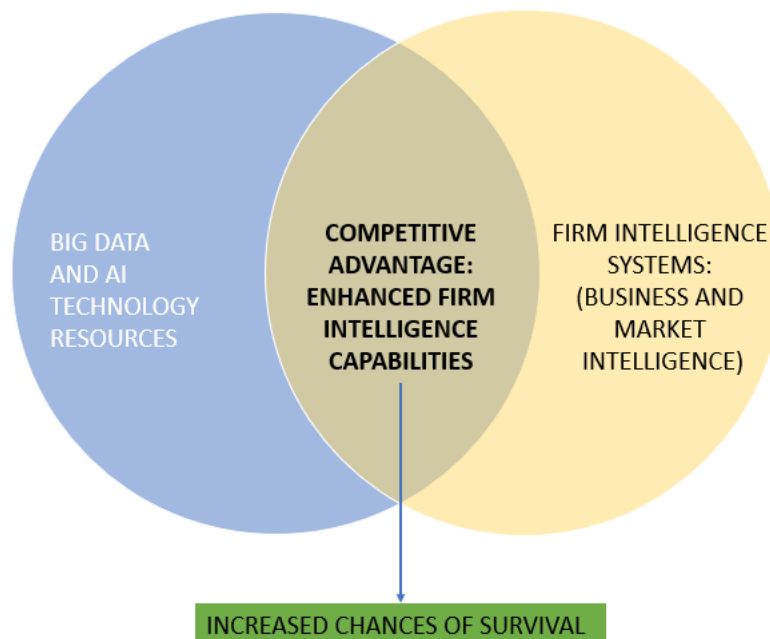


Figure 1: Conversion of big data, AI and to competitive advantage.

### *Firm intelligence systems*

Firm intelligence functions help executives and decision makers to understand what is happening and what is likely to happen next in the market and within the firm (Trim, 2004; Montgomery and Weinberg, 1979). Intelligence can create a competitive advantage for firms by providing assurance to engage in endeavors which oblivious competitors tend to avoid. Strong firm intelligence helps firms thrive in high threat environments, in new markets and in fast changing environments. In this study, firm intelligence systems refer to an umbrella term covering market intelligence and business intelligence.

Business intelligence refers to the procedural and technical infrastructure that collects, stores, and analyzes the data produced by a company's activities (Dresner, 1989). Business intelligence systems employ data mining, process analysis, performance benchmarking, and descriptive analytics to all the data generated by a business. Business intelligence presents easy-to-digest reports, performance measures, and trends that inform management decisions (Negash and Gray, 2008; Luhn, 1958; Chaudhuri et al; 2011). Business intelligence systems help improve decision-making and consequently boost process efficiency and customer outcomes. The emphasis of business intelligence is the use internal firm data for informed decision-making, and this is what differentiates it from market intelligence which employs external data (Cheng et al, 2020).

Market intelligence takes a more holistic approach to the entire market environment combining both competitive intelligence and customer intelligence (Kelley, 1965). Market intelligence systems assess the firm's customers, problems, competition, and opportunities for creating new products and services (Maria et al, 2020). The information explored could be anywhere from customer demographics, geographic information, what consumers buy, competitor positioning and insights with regards to the firm's position in the entire marketplace (Trim and Lee, 2008). Market intelligence usually builds up towards the firm's market intelligence capabilities, reflected in market orientation (Jaworski and Kohli, 1993; Narver and Slater, 1998), and provides insight as to where to devote resources, what markets to enter, and customer buying patterns.

Several organizations bury intelligence roles deep in the organization and encourage operational intelligence activities to occur in silos. This approach creates a disconnection between intelligence employees and senior decision makers. Firm intelligence is most valuable when employees in charge of intelligence have a direct contact with company executives (Wedel and Kannan, 2016). This is made possible by encouraging cross-collaboration and cocreation of decisions between the concerned departments.

When business intelligence and market intelligence are managed adequately in conjunction with existing organizational resources, the firm develops superior strategies and tactics leading to competitive advantage.

### DEVELOPMENT OF PROPOSITIONS

The RBV based framework for the development of competitive advantage to AI and big data enhanced firm intelligence systems is shown in figure 2.

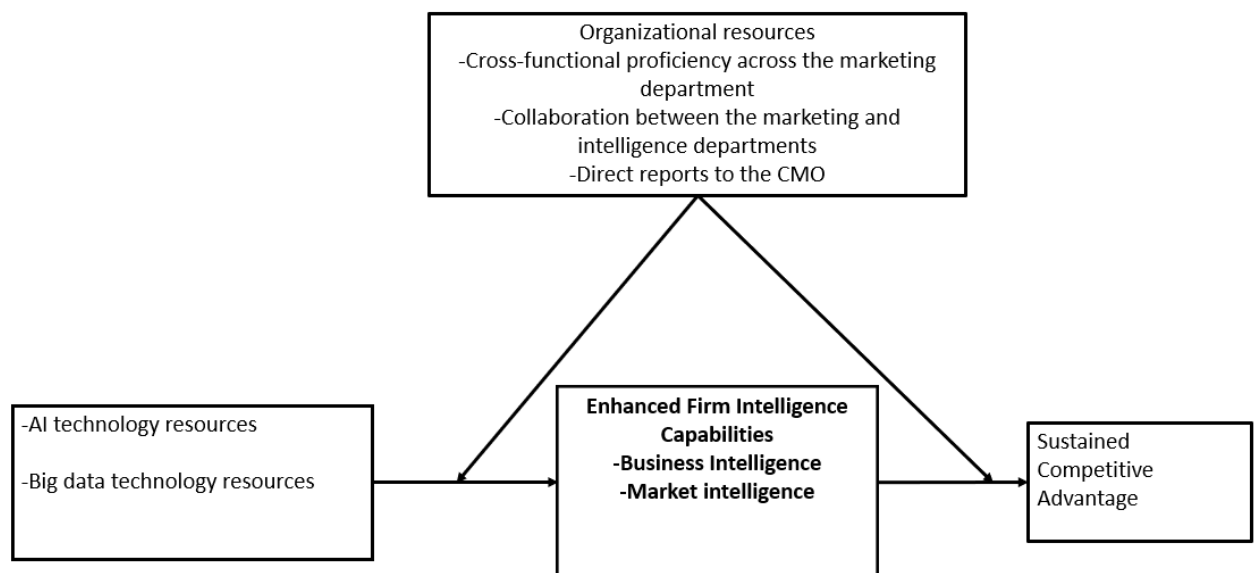


Figure 2: Framework for development of competitive advantage from AI and big data technology resources.

### Implementation of AI and big data technology resources

The impact of big data and big data technology on the firm is unquestionable (Wamba et al, 2015, Abbasi et al, 2016; Kimble and Milolidakis,2015). The literature reveals three ways in which firm’s implementation of big data technology resources could generate superior firm intelligence capabilities:

First, traditional firm intelligence systems rely on structured historical data to make future predictions. However, big data is usually highly unstructured and contains information about both past issues and current unknown issues (Amado et al, 2018; Ghasemaghaei, Ebrahimi, & Hassanein, 2017). Implementing big data increases the predictive ability and

agility of firm intelligence systems. Big data technology aggregates data from myriad internal and external sources, increasing the effectiveness of data analytics performed by firm intelligence systems. Getting data from different sources provides a more generalizable view of what is happening in the market and reduces myopia in insights drawn from data analytics and consequently in strategy development.

Second, because of its velocity characteristics (Ghasemaghahi, Ebrahimi, & Hassanein, 2017), big data brings in information about real-time issues, revealing an up-to-date picture of the nature of market changes. Incorporating this real-time data into the organization using the adequate technology improves the firm's intelligence systems' ability to propose proactive measures to address market changes.

Finally, traditional business intelligence systems track market segments, and aggregate level information about the market (Barham, 2017). Big data systems are more superior in that they almost accurately identify market niches (not large segments). Big data provide information about specific market and firm changes (McAfee et al, 2012), increasing specificity and accuracy, and reducing the vagueness of insights provided by firm intelligence systems. Overall, big data and big data technology resources are expected to improve the efficiency of firm intelligence systems.

The advantage that Artificial intelligence brings to the firm's intelligence systems is in its ability to self-learn and process enormous quantities of data in very little time. Adoption of AI technology will likely improve the process and outcome of data analytics conducted by traditional firm intelligence systems. The literature on intelligence and innovation provides a couple of reasons for this.

AI processes data objectively, without the intervention of human intuition and subjective biases (Buettner 2013; Kordon, 2020). So, AI provides intelligence from computations that are more original and closer to objective reality. Further, AI systems update their decisions in real-time as data is received. So, they should allow firm intelligence systems to adapt easily and quickly to changes in the environment (Browne, 2021). Further, AI operates tirelessly and intelligently without errors that may result from cognitive overload and clouded judgement. AI infers solutions from multidimensional spaces while taking into consideration the relationships between several factors at the same time (Browne, 2021). This improves the predictive power of firm intelligence systems. In general, AI brings objectivity, hence consistency and accuracy to firm intelligence systems.

As discussed in the previous section AI and big data provide their highest potential when adopted and applied together. Specifically, intelligence systems that leverage AI and big data technologies in a complementary way should be superior in terms of authenticity, security, accuracy, quality, automation, and augmentation, to systems that do not. Based on the logic above the following propositions are made:

**P1:** *Firms that adopt and implement big data technology resources will have more superior intelligence systems than firms that do not.*

**P2:** *Firms that adopt and implement AI technology resources will have more superior intelligence systems than firms that do not*

**P3:** *Firms that implement and adopt AI and big data technology together will have more improved intelligence systems than firms that implement any one of the technologies in isolation.*

### **The role of organizational resources (The marketing and intelligence departments)**



Prior research has found that the lack of competence in AI and big data technologies within firms is one of the main reasons why companies fail to reap value from these technologies (Sun et al, 2018; Baig et al, 2019; Omitogun and Aldeem, 2019). Managing and implementing AI and big data technologies to improve firm intelligence activities over traditional intelligence requires adequate expertise and collaboration within the organization. According to Wedel and Kannan (2016) a culture of data-driven decision-making is a necessary precursor for such collaboration and expertise building. Such cultures are encouraged when company executives (e.g., CFO and CMO) are data-analytics experts with marketing knowledge, who acknowledge the necessity for company wide use of resources to enable the proper application of big data (Grossman and Seigel, 2014; Hagen and Khan, 2014).

Beneath firm executives, employees may need the technological knowledge necessary to convert AI and big data resources to value. On the front end of firm intelligence, a lot of data collection and trend spotting is done by the employees at the firm-customer interface. These employees are usually marketing professionals and salespeople, indicating an intense implication of the marketing department in firm intelligence. In small firms in particular, marketers may have the sole responsibility for information collection and analysis, as well its dissemination and use in business planning.

AI and big data technologies used at the customer/ firm interface are now becoming a regular part of many marketers' and salespeople's routines. Several firms are opting for more specialized role structures and competences, to align with customers' behavior and expectations. Firms are also seeking roles that possess the capabilities required to operate and understand how these new marketing technologies impact the marketing process (Bradford et al. 2010; Singh et al, 2019).

For big data and AI technologies to make a significant addition to firm intelligence, firms will need to innovate the job design and skill sets of employees involved in sales and marketing processes (Barro and Davenport 2019). Firms that succeed to develop a team of marketing analysts with substantive marketing knowledge, "a cross-functional skill set; proficiency in technology, data science, and analytics; and up-to-date domain expertise" will be more likely to successfully implement AI and big data technology for superior firm intelligence (Wedel and Kannan, 2016).

On the back end, intelligence is crucial to the conversion of data insights to business value and solutions for the specific demands of marketing problems. There is a necessity for speedy communication and cocreation between marketing managers and other intelligence analysts. In addition to distribution of analytics capabilities, firms need to encourage collaboration between the intelligence departments and the marketing departments. Facilitating collaboration and direct reporting to the CMO eliminates bureaucracy and allows for agile response to emerging issues (Wedel and Kannan, 2016)

Two assumptions can be made from the observations made above:

- (1) Because of the crucial role played by marketing professionals in data collection for firm intelligence, the technological capability of the marketing department may have an influence on how these technologies translate to firm intelligence capabilities. Theories of absorptive capacity (Cohen and Levinthal, 1990) explain that firms with high absorptive capacity are better able to notice valuable information and technology and convert them to value. Absorptive capacity comes when a firm possesses a high level of knowledge and skills in areas relevant to applying the new technology (Wang and Ahmed, 2007). Empowering marketing professionals with technological capability related to AI and big data should increase the absorptive capacity of the firm

and increase the likelihood that the new technological resources will enhance firm intelligence capabilities.

- (2) Intelligence must be communicated to the right decision makers. Getting actionable intelligence to the right person at the right time and place is critical to the transformation of intelligence to competitive advantage. Eisenhardt and Martin (2000) posit that competitive advantage of dynamic capabilities is only augmented when the capabilities are applied 'sooner, more astutely, and more fortuitously' than competing firms. Given that the output of intelligence activities is critical for marketing strategy, it is important to have the intelligence departments reporting directly and timely to marketing executives in charge of planning (the CMO or executive in charge of marketing planning)

Thus,

**P4:** *Firms that equip their marketing employees (the CMO, marketing managers and marketers) with a cross-functional skillset (i.e., high technological proficiency and data analytics capability alongside substantial marketing expertise) will benefit more from the enhancing influence of big data and AI technology implementation on firm intelligence capabilities.*

**P5a:** *Firms that encourage collaboration between the marketing and intelligence departments achieve greater competitive advantage from firm intelligence capabilities than firms that do not.*

**P5b:** *Firms that eliminate bureaucracy and establish a direct reporting channel from the firm's intelligence team to the firm's CMO will achieve greater competitive advantage from firm intelligence capabilities than firms that do not.*

### ***The path to competitive advantage (Superior intelligence systems)***

The previous section laid out a robust conceptual foundation for the development of competitive advantage from AI and big data technologies. In addition to previous arguments made, the final proposition addresses the direct relationship between firm intelligence capabilities and competitive advantage.

Sustained competitive advantage comes from the firm's ability to continuously match its strategy and internal competencies to the competitive changes in the business environment (Diaz-Chao et al, 2015; Man et al, 2002). The concept of intelligence as a process has long been proposed as a means to increase a firm's competitiveness. Intelligence has become more vital to firm survival in today's dynamic markets through improved firm effectiveness and efficiency (Maune, 2014). Firm intelligence capabilities, specifically market intelligence capabilities enable firms to scan for marketing opportunities and determine the exact resources needed to develop the market, while understanding possible sources of competition. Business intelligence on the other hand allows firms to optimize their internal processes and ensure readiness to approach marketing problems in a timely and cost-effective manner. According to Golder and Tellis (1993) these are the activities that lead to increased chances of survival over competitors and hence sustained competitive advantage.

Further, firm intelligence capabilities are a dynamic set of capabilities that allow the firm to sense, seize, and transform opportunities and threats in their environment (Torres et

al, 2018; Chen and Lin, 2021; Hunt and Madhavaram, 2020). The timely, quick and near accurate access to data about the firm's internal and external environment provided by AI and big data should improve the efficiency of business processes, thereby cutting costs, providing opportunities for pricing adjustments and improving the firm's bottom lines. These additional effects could improve the firm's competitive position.

Thus,

**P6:** *Firms with superior intelligence capabilities are more likely to have greater competitive advantage and greater chances of survival amongst competitors than firms that do not have enhanced intelligence capabilities.*

## CONCLUSION

The aim of this study was to explore and reveal the means through which AI and big data technology resources provide competitive advantage for firms. A conceptual framework has been developed which demonstrates how AI and big data technologies can increase firms' chances of survival by creating a unique set of dynamic capabilities called firm intelligence capabilities. Firm intelligence capabilities create barriers to competitor acquisition and imitation. The framework equally reveals how organizational resources can be coordinated to enhance the creation of competitive advantage. Specifically, the important role of the marketing function and department is brought to the forefront.

### Theoretical implications

This study contributes to and demonstrates the importance of the resource-based view and the theories of dynamic capabilities in understanding how firms can transform their resources into competitive advantage. Technology related resources are usually easy to copy. Drawing from prior literature and the foundations of RBV, this study adds to the literature by showing in detail how technology related resources can be made less imitable. AI and big data technology resources can be converted to distinct dynamic capabilities which provide protection from competitive imitation. Also, the assessment of the VRIN status AI and big data technologies adds substantially to the understanding of the resource advantage provided by these technologies. This assessment can guide future researchers looking to further investigate the value creating organizational capabilities related to these technologies.

Secondly, this study makes an important contribution to the literature on the impacts of emerging/disruptive technologies on firms in general and on marketing. Practitioners and researchers are still trying to understand how these emerging technologies influence firms. This study provides insights into the impacts of AI and big data technologies as demonstrated above, but also provides a template for investigating future emerging technologies with respect to their influence on the firm and on marketing activities.

Finally, this study contributes to the body of literature that addresses the role of the marketing department and the importance of marketing executives in the firm. There are very few studies that have considered how the marketing department can influence the obtention of competitive advantage when it comes to emerging technologies. This study attempts to do that and reveals how the organization can equip and organize activities around the marketing function such that positive outcomes are achieved for the firm.

### Practical implications

While empirical investigations are needed to confirm or disconfirm the propositions made, the framework developed may guide marketing managers in the following ways:

- CEO's can increase the value of their investments in AI and big data technologies, by creating organizational structures and developing a culture that actively combines these resources with their already existing intelligence systems. This creates a set of dynamic capabilities (firm intelligence capabilities) that are specific to the firm and difficult to copy.
- CEO's that encourage the combined adoption and implementation of AI and big data technologies stand the chance of obtaining even more superior competitive advantage for their firms compared to firms that do not use the two technologies in a complementary way. This may be done by investing in the collection, organization, and analysis of big data while installing AI automation tools and systems at the interface between the customer and the firm.
- Firms need to create a team of marketing analyst that are equally proficient in AI technology, data analytics and marketing knowledge. These teams will include CMOs CFOs, marketing managers and sales and marketing employees. Employees at every level of the marketing function play an important role in the acquisition and implementation of intelligence. Thus, they should have the necessary competence to exploit emerging technologies that bring intelligence into the firm and convert intelligence into marketing actions. Enhancing the marketing department in this way may increase the tendency for the technologies to be embedded in the organization and for competitive advantage to be realized.
- The links between the marketing department and intelligence teams need to be strong. The competitive advantage from using firm intelligence capabilities comes when the outputs are applied in a timely manner. Specifically, since these outputs usually go into marketing planning and planning of CRM strategies which is usually done by the CMO, firms will benefit from reducing bureaucracy and having their intelligence teams report directly to the CMO, or the marketing executive in charge of planning.

### **Directions for future research**

In exploring this framework further, researchers may consider the following gaps which still need to be addressed:

- It is important to explore what disadvantages firms would face if they were not to implement AI and big data technology. Exploring these factors will shed more light on the gap between firms that adopt and implement the technologies and firms that do not, creating a more convincing argument for AI and big data based competitive advantage.
- Future research should explore the contextual factors (e.g., types of industries where AI and Big data technology implementation creates a bigger advantage). For example, the advantages related to cyber-attacks may not be a concern for several industries. Are there industries for which AI and big data technologies are not entirely relevant? Perhaps these technologies will present a smaller benefit in such industries.
- Finally, future research should investigate the direct impact of these technologies on firm outcomes (Firm value and financial performance). From this framework, we may guess that AI and big data technologies improve firm performance through improved

bottom lines and streamlined processes. However, the theoretical background supporting such a relationship needs to be developed and the relationship tested. Findings from such an investigation will further provide evidence in support of why firms should strive for AI and big data based competitive advantage.

## REFERENCES

- Abbasi, A., Sarker, S., & Chiang, R. H. (2016). Big data research in information systems: Toward an inclusive research agenda. *Journal of the association for information systems*, 17(2), 3.
- Amado, A., Cortez, P., Rita, P., & Moro, S. (2018). Research trends on Big data in Marketing: A text mining and topic modeling based literature analysis. *European Research on Management and Business Economics*, 24(1), 1-7.
- Baig, M. I., Shuib, L., & Yadegaridehkordi, E. (2019). Big data adoption: State of the art and research challenges. *Information Processing & Management*, 56(6), 102095.
- Baumgartner, T., Hatami, H., & De Uster, M. V. (2016). *Sales growth: five proven strategies from the world's sales leaders*. John Wiley & Sons.
- Barney, J. B. (1997). Gaining and sustaining competitive advantage.
- Barro, S., & Davenport, T. H. (2019). People and machines: Partners in innovation. *MIT Sloan Management Review*, 60(4), 22-28.
- Bharadwaj, A. S. (2000). A resource-based perspective on information technology capability and firm performance: an empirical investigation. *MIS quarterly*, 169-196.
- Barham, H. (2017, July). Achieving competitive advantage through big data: A literature review. In 2017 Portland international conference on management of engineering and technology (PICMET) (pp. 1-7). IEEE.
- Bock, D. E., Wolter, J. S., & Ferrell, O. C. (2020). Artificial intelligence: disrupting what we know about services. *Journal of Services Marketing*, 34(3), 317-334.
- Borges, M., Hoppen, N., & Luce, F. B. (2009). Information technology impact on market orientation in e-business. *Journal of business research*, 62(9), 883-890.
- Božič, K., & Dimovski, V. (2019). Business intelligence and analytics use, innovation ambidexterity, and firm performance: A dynamic capabilities perspective. *The Journal of Strategic Information Systems*, 28(4), 101578.
- Bradford, K., Brown, S., Ganesan, S., Hunter, G., Onyemah, V., Palmatier, R., ... & Weitz, B. (2010). The embedded sales force: Connecting buying and selling organizations. *Marketing Letters*, 21(3), 239-253.

Browne, M. (2021). Artificial intelligence data-driven Internet of Things systems, real-time process monitoring, and sustainable industrial value creation in smart networked factories. *Journal of Self-Governance and Management Economics*, 9(2), 21-31.

Buettner, R. (2013, September). Cognitive workload of humans using artificial intelligence systems: towards objective measurement applying eye-tracking technology. In *Annual conference on artificial intelligence* (pp. 37-48). Springer, Berlin, Heidelberg.

Campbell, C., Sands, S., Ferraro, C., Tsao, H.-Y., & Mavrommatis, A. (2019). From data to action: How marketers can leverage AI. *Business Horizons*, 63(2), 227-243.

Cano, C. R., Carrillat, F. A., & Jaramillo, F. (2004). A meta-analysis of the relationship between market orientation and business performance: evidence from five continents. *International Journal of research in Marketing*, 21(2), 179-200.

Cao, G., Duan, Y., & El Banna, A. (2019). A dynamic capability view of marketing analytics: Evidence from UK firms. *Industrial Marketing Management*, 76, 72-83.

Chakravarthy, B. S. (1982). Adaptation: A promising metaphor for strategic management. *Academy of management review*, 7(1), 35-44.

Chandy, R. K., & Tellis, G. J. (2000). The incumbent's curse? Incumbency, size, and radical product innovation. *Journal of marketing*, 64(3), 1-17.

Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2021). The effect of AI-based CRM on organization performance and competitive advantage: An empirical analysis in the B2B context. *Industrial Marketing Management*, 97, 205-219.

Chaudhuri, S., Dayal, U., & Narasayya, V. (2011). An overview of business intelligence technology. *Communications of the ACM*, 54(8), 88-98.

Chen, Y., & Lin, Z. (2021). Business intelligence capabilities and firm performance: A study in China. *International Journal of Information Management*, 57, 102232.

Cheng, C., Zhong, H., & Cao, L. (2020). Facilitating speed of internationalization: The roles of business intelligence and organizational agility. *Journal of Business Research*, 110, 95-103.

Chung, T. S., Rust, R. T., & Wedel, M. (2009). My Mobile Music: An Adaptive Personalization System for Digital Audio Players. *Marketing Science*, 28(1), 52-68.

Chung, T. S., Wedel, M., & Rust, R. T. (2016). Adaptive Personalization Using Social Networks. *Journal of the Academy of Marketing Science*, 44(1), 66-87

Christensen, C. M. (2013). *The innovator's dilemma: when new technologies cause great firms to fail*. Harvard Business Review Press.

Clemons, E. K., & Row, M. C. (1991). Sustaining IT advantage: The role of structural differences. *MIS quarterly*, 275-292.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative science quarterly*, 128-152.

Corea, F. (2019). The convergence of AI and . In *Applied artificial intelligence: Where AI can be used in business* (pp. 19-26). Springer, Cham.

- Davenport, T. H., Harris, J. G., & Morison, R. (2010). *Analytics at work: Smarter decisions, better results*. Harvard Business Press.
- Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 48(1), 24-42.
- De Mauro, A., Greco, M., & Grimaldi, M. (2016). A formal definition of Big data based on its essential features. *Library Review*.
- Díaz-Chao, Á., Sainz-González, J., & Torrent-Sellens, J. (2015). ICT, innovation, and firm productivity: New evidence from small local firms. *Journal of Business Research*, 68(7), 1439-1444.
- Dremel, C., Herterich, M. M., Wulf, J., & Vom Brocke, J. (2020). Actualizing big data analytics affordances: A revelatory case study. *Information & Management*, 57(1), 103121.
- Dresner, H. (1989). Business intelligence. *Gartner Inc*.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they?. *Strategic management journal*, 21(10-11), 1105-1121.
- Erevelles, S., Fukawa, N., & Swayne, L. (2016). Big data consumer analytics and the transformation of marketing. *Journal of business research*, 69(2), 897-904.
- Eriksson, T., Bigi, A., & Bonera, M. (2020). Think with me, or think for me? On the future role of artificial intelligence in marketing strategy formulation. *The TQM Journal*.
- Ghasemaghaei, M., & Calic, G. (2020). Assessing the impact of big data on firm innovation performance: Big data is not always better data. *Journal of Business Research*, 108, 147-162.
- Ghasemaghaei, M., Ebrahimi, S., & Hassanein, K. (2018). Data analytics competency for improving firm decision making performance. *The Journal of Strategic Information Systems*, 27(1), 101-113.
- Grossman, R., & Siegel, K. (2014). Organizational models for big data and analytics. *Journal of Organization Design*, 3(1), 20-25.
- Golder, P. N., & Tellis, G. J. (1993). Pioneer advantage: Marketing logic or marketing legend?. *Journal of marketing Research*, 30(2), 158-170.
- Gupta, M., & George, J. F. (2016). Toward the development of a big data analytics capability. *Information & Management*, 53(8), 1049-1064.
- Hagen, C., & Khan, K. (2014). Big data and analytics: Go big or go home. *Ivey Business Journal Reprints*. Retrieved from <http://link.galegroup.com.ezp.waldenulibrary.org/apps/docA/417896152>.
- Hassani, H., Huang, X., & Silva, E. (2018). Big-crypto: Big data, and cryptocurrency. *Big data and Cognitive Computing*, 2(4), 34.
- Huang, M. and Rust, R. (2018), “Artificial intelligence in service”, *Journal of Service Research*, Vol. 21 No. 2, pp. 155-172.
- Hunt, S. D., & Morgan, R. M. (1995). The comparative advantage theory of competition. *Journal of marketing*, 59(2), 1-15.

- Hunt, S. D., & Madhavaram, S. (2020). Adaptive marketing capabilities, dynamic capabilities, and renewal competences: The “outside vs. inside” and “static vs. dynamic” controversies in strategy. *Industrial Marketing Management*, 89, 129-139.
- Jarek, K., & Mazurek, G. (2019). Marketing and Artificial Intelligence. *Central European Business Review*, 8(2).
- Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: antecedents and consequences. *Journal of marketing*, 57(3), 53-70.
- Jyoti, J., & Sharma, J. (2012). Impact of market orientation on business performance: Role of employee satisfaction and customer satisfaction. *Vision*, 16(4), 297-313.
- Kaplan, A. and Haenlein, M. (2019), “Siri, siri, in my hand: who’s the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence”, *Business Horizons*, Vol. 62 No. 1, pp. 15-25.
- Kelley, W. T. (1965). Marketing intelligence for top management. *Journal of marketing*, 29(4), 19-24.
- Kimble, C., & Milolidakis, G. (2015). Big data and business intelligence: Debunking the myths. *Global Business and Organizational Excellence*, 35(1), 23-34.
- Kordon, A. (2020, August). Applied Artificial Intelligence-Based Systems as Competitive Advantage. In *2020 IEEE 10th International Conference on Intelligent Systems (IS)* (pp. 6-18). IEEE.
- Kumar, V. (2018). Transformative marketing: The next 20 years. *Journal of Marketing*, 82(4), 1-12.
- Li, J., Ye, Z., & Zhang, C. (2022). Study on the interaction between big data and artificial intelligence. *Systems Research and Behavioral Science*, 39(3), 641-648.
- Luhn, H. P. (1958). A business intelligence system. *IBM Journal of research and development*, 2(4), 314-319.
- Luo, X., Qin, M. S., Fang, Z., & Qu, Z. (2021). Artificial intelligence coaches for sales agents: Caveats and solutions. *Journal of Marketing*, 85(2), 14-32.
- Lycett, M. (2013). ‘Datafication’: making sense of (big) data in a complex world. *European Journal of Information Systems*, 22(4), 381-386.
- Ma, L., & Sun, B. (2020). Machine learning and AI in marketing—Connecting computing power to human insights. *International Journal of Research in Marketing*, 37(3), 481-504.
- Man, T. W., Lau, T., & Chan, K. F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of business venturing*, 17(2), 123-142.
- Maria, S., Pusriadi, T., & Darma, D. C. (2020). Marketing intelligence: Benefits and implementation of its business. *Problems of Management in the 21st Century*, 15(2), 92-99.
- Maune, A. (2014). Competitive intelligence as an enabler for firm competitiveness: an overview. *Journal of Governance and Regulation*, 3(2), 29-42.
- McAfee, A., Brynjolfsson, E., Davenport, T. H., Patil, D. J., & Barton, D. (2012). Big data: the management revolution. *Harvard business review*, 90(10), 60-68.



- Mckinsey, May1, 2011. Big data: the next frontier for innovation, competition and productivity. [Big data: The next frontier for innovation, competition, and productivity | McKinsey](#) consulted 04/28/2021
- Merendino, A., Dibb, S., Meadows, M., Quinn, L., Wilson, D., Simkin, L., & Canhoto, A. (2018). Big data, big decisions: The impact of big data on board level decision-making. *Journal of Business Research*, 93, 67-78.
- Mikalef, P., Pappas, I. O., Krogstie, J., & Giannakos, M. (2018). Big data analytics capabilities: a systematic literature review and research agenda. *Information Systems and e-Business Management*, 16(3), 547-578.
- Mikalef, P., & Gupta, M. (2021). Artificial intelligence capability: Conceptualization, measurement calibration, and empirical study on its impact on organizational creativity and firm performance. *Information & Management*, 58(3), 103434.
- Montgomery, D. B., & Weinberg, C. B. (1979). Toward strategic intelligence systems. *Journal of Marketing*, 43(4), 41-52.
- Narver, J. C., Slater, S. F., & Tietje, B. (1998). Creating a market orientation. *Journal of market-focused management*, 2(3), 241-255.
- Negash, S., & Gray, P. (2008). Business intelligence. In *Handbook on decision support systems 2* (pp. 175-193). Springer, Berlin, Heidelberg
- Omitogun, A., & Al-Adeem, K. (2019). Auditors' perceptions of and competencies in big data and data analytics: an empirical investigation. *International Journal of Computer Auditing*, 1(1), 92-113.
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley
- Popovič, A., Puklavec, B., & Oliveira, T. (2018). Justifying business intelligence systems adoption in SMEs: Impact of systems use on firm performance. *Industrial Management & Data Systems*.
- Powell, T. C., & Dent-Micallef, A. (1997). Information technology as competitive advantage: The role of human, business, and technology resources. *Strategic management journal*, 18(5), 375-405.
- Pulendran, S., Speed, R., & Widing, R. E. (2003). Marketing planning, market orientation and business performance. *European journal of marketing*.
- Rabah, K. (2018). Convergence of AI, IoT, big data and : a review. *The lake institute Journal*, 1(1), 1-18.
- Rust, R. T., & Huang, M. H. (2014). The service revolution and the transformation of marketing science. *Marketing Science*, 33(2), 206-221.
- Simmons, A. B., & Chappell, S. G. (1988). Artificial intelligence-definition and practice. *IEEE journal of oceanic engineering*, 13(2), 14-42.
- Singh, S. K., Rathore, S., & Park, J. H. (2020). Blockiotintelligence: A -enabled intelligent IoT architecture with artificial intelligence. *Future Generation Computer Systems*, 110, 721-743.
- Singh, J., Flaherty, K., Sohi, R. S., Deeter-Schmelz, D., Habel, J., Le Meunier-FitzHugh, K., ... & Onyemah, V. (2019). Sales profession and professionals in the age of digitization and

artificial intelligence technologies: concepts, priorities, and questions. *Journal of Personal Selling & Sales Management*, 39(1), 2-22.

Srivastava, R. K., Shervani, T. A., & Fahey, L. (1998). Market-based assets and shareholder value: A framework for analysis. *Journal of marketing*, 62(1), 2-18.

Sun, S., Cegielski, C. G., Jia, L., & Hall, D. J. (2018). Understanding the factors affecting the organizational adoption of big data. *Journal of Computer Information Systems*, 58(3), 193-203.

Syam, N. and Sharma, A. (2018), “Waiting for a sales renaissance in the fourth industrial revolution: machine learning and artificial intelligence in sales research and practice”, *Industrial Marketing Management*, Vol. 69, pp. 135-146.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 18(7), 509-533.

Teece, D. J. (2014). The foundations of enterprise performance: Dynamic and ordinary capabilities in an (economic) theory of firms. *Academy of management perspectives*, 28(4), 328-352.

Torres, R., Sidorova, A., & Jones, M. C. (2018). Enabling firm performance through business intelligence and analytics: A dynamic capabilities perspective. *Information & Management*, 55(7), 822-839.

Trim, P. R. (2004). The strategic corporate intelligence and transformational marketing model. *Marketing Intelligence & Planning*.

Trim, P. R., & Lee, Y. I. (2008). A strategic marketing intelligence and multi-organisational resilience framework. *European Journal of Marketing*.

Wamba, S. F., Akter, S., Edwards, A., Chopin, G., & Gnanzou, D. (2015). How ‘big data’ can make big impact: Findings from a systematic review and a longitudinal case study. *International Journal of Production Economics*, 165, 234-246.

Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International journal of management reviews*, 9(1), 31-51.

Wang, C. L., Hult, G. T. M., Ketchen Jr, D. J., & Ahmed, P. K. (2009). Knowledge management orientation, market orientation, and firm performance: an integration and empirical examination. *Journal of Strategic Marketing*, 17(2), 99-122.

Wedel, M., & Kannan, P. K. (2016). Marketing analytics for data-rich environments. *Journal of Marketing*, 80(6), 97-121.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic management journal*, 5(2), 171-180.

Wirth, N. (2018). Hello marketing, what can artificial intelligence help you with?. *International Journal of Market Research*, 60(5), 435-438.

**RESOURCE COORDINATION AND TOE FOR  
IMPLEMENTATION OF AUDIT RECOMMENDATIONS: A  
CASE STUDY OF ENVIRONMENTAL AUDIT IN CHINA**

**Ronghua Xu, Ningbo University  
Jing Zhu, Ningbo University  
Mengting Liu, Ningbo University**

---

**ABSTRACT**

Government auditing plays an important role in national governance, and as the country develops, the constructive function of audit becomes increasingly important. However, there are still a series of problems about whether audit recommendations can be effectively implemented. This paper presents a case study of Construction Waste Legislation in Ningbo, China, using resource coordination theory and the Technology-Organization-Environment (TOE) framework as a theoretical perspective to explore how the Ningbo Audit Bureau can play a synergistic role with other government departments and to develop a theoretical model for effective implementation of audit recommendations. The research results of study show that audit department in practice creates favorable conditions for the triple linkage matching of technology, organization, and environment through specific resource actions (building resource portfolios, bundling resources, and leveraging capabilities to create value), so as to enable the implementation of audit recommendations and enhance the value of government auditing. This paper provides some implications for other government agencies, expanding the application of resource coordination theory and TOE framework at the government level, as well as enhancing the fit between resource coordination, TOE theory, and implementation of audit recommendation.

**KEY WORDS:** Implementation of audit recommendations, Resource Coordination Theory, Technology-Organization-Environment framework

# **MARKETING CHANNEL AND SUPPLY CHAIN MANAGEMENT**

---

## **SUPPLY CHAIN CO-BRANDING: VALUE PERCEPTIONS OF THIRD-PARTY LOGISTICS SERVICE PROVIDERS**

**Yolanda Obaze, University of Evansville, Indiana**

---

### **ABSTRACT**

Different industries use co-branding strategies to help build the brand equity of their various brands. While logistics and supply chain industries have used branding theories in their business plans, very few companies incorporate co-branding strategies. Past research is yet to use co-branding strategies to emphasize value perceptions for logistics brands especially in the context of third-party logistics service providers. Using several inter disciplinary theories, the researchers seek to understand how and if third-party logistics service providers can better leverage the perceptions of value they create for other companies. This research uses these theories to explore how supply chain companies can enable their brand alliances to increase perceived value to consumers. The research will use quantitative and qualitative research to analyze this research gap. An online survey is constructed with three different scenarios to capture the use of brand associations of three specific third party logistics brands and three non-logistics parent brands to determine their ability to entail perceived value. For the overall analysis, the proven research analysis significantly supported all hypotheses given in the research study.

## INTRODUCTION

Co-Branding as a term sparks a growing interest with today's companies looking to gain a competitive advantage. While there are several risks associated with this strategy, there is however many more benefits that could result out if it. Benefits could vary. Usually these benefits range from shared reputation, assets, risks and joint ventures. Although a costly venture, especially when it entails costly business initiatives such as new brand developments or advertising the new brand extension (Tauber 1988), co-branding strategies are still an enhanced business initiative.

Companies embarking on unique and differentiated business functions, are able to specialize in a specific area of business that differentiates the company from others (Porter 2008). This differentiation strategy can develop organizational competencies for one company compared to another. With such business enterprises as outsourcing, companies seek additional services, competencies and funds from other companies able to provide the required services efficiently and with reduced costs. These companies emphasize the need to come together to enable value added services.

Third-party Logistics companies (hereafter, TPL) are a growing trend in today's society (Hertz and Alfredsson 2003). Associated with a rising need to provide value added services, TPL providers seek to perform discrete supply chain functions for other non-logistics companies (Paulraj et al. 2012). Empirical studies have shown that with the increasing need for companies to form networks in enhancing overall effectiveness (Maloni and Carter 2006), there is also an increasing necessity for joint partnerships between companies and TPL service providers.

However, can purchase consumers perceive overall value from one company alone, knowing that the companies work closely together with other companies to achieve value added services? This is the case for the Logistics Third-party Company that differentiates their services from all other companies in providing value added services. While these companies set out to provide value added services for other companies, there seems to be a gap in recognizing Third-party Logistics Company for their specific attributes, logo and name. In analyzing this gap, the research highlights four research questions:

- Will co-branding between a host company and a TPL service provider increase value perceptions for a customer?
- Is there a measurable increase in perceived value associated with supply chain certification and association?
- Will consumers respond to supply chain brand attributes as a cue for perceived value?
- Will consumers intend to purchase products based on associated cues and perceived value of the supply chain co-brand?

Supply chain research suggests that companies work together to propel the flow of products, funds, services and reduce costs to produce value for consumers. Companies involved in supply chain functions encourage and emphasize the network of companies working together to achieve a competitive advantage. Many of these companies do not necessarily have to have similar business functions, but it is necessary for there to be a perceived fit between the companies (Thompson and Strutton 2012). The "fit" of companies can be from sharing business functions, to having similar attributes perceived from the companies and their consumers (Thompson and Strutton 2012).

These TPL companies can be as a brand of its own. As a brand, it is able to show its distinct functions and capabilities compared to what other companies can or cannot be able to provide. However, while these companies increase in number, and have been able to provide value-added services, there seems to be a gap in the intrinsic and extrinsic cues, and associations, TPL companies have in making their capabilities well known to consumers. TPL companies known to be logistics service providers of their own right can also leverage their competitive advantage in providing services by establishing themselves as a brand. TPL services providers as a brand can characterize their market governance with other firms by strategically mitigating their capable elements and distinct services in exchange for a transfer in positive brand equity associated with the partner brand.

However, there seems to be few research studies emphasizing the need for TPL companies to co-brand their names, associations, and equity with other non-logistics companies. While these companies help non-logistics companies to provide value and a well-known reputation of efficiency. The logistics providers do not have, to our knowledge, well-known cues associated with their company advantages.

The main purpose of the research is to use quantitative and qualitative research using several inter disciplinary theories to understand how TPL service providers can better leverage the perceptions of value they create for other companies. The research will use these theories to explore how supply chain companies can leverage their brand alliances in providing perceived value to consumers.

In the following section, we present the theoretical background for the paper in respect to the research. We then develop our hypotheses. Next, we describe the research methodology. Lastly, we provide our results, conclusion and managerial implications, and future research opportunities. For the sake of defining TPL companies, we will use the term logistics and supply chain interchangeably.

## **THEORETICAL BACKGROUND**

Several definitions of the term supply chain cuts across several fields, industries and research. There have been many definitions of supply chain management, many of which emphasize two main interests in relation to this research, “value” and “networks through partnerships”. Empirical studies have emphasized the need and substantial benefits for companies to form an integration of networks, internally and externally, in providing products and services with value. It would only seem logical for companies willing to create strategic partnerships with companies that have a similar fit to examine value perceptions in the distribution of services and products. Mentzer, Dewitt and et al. (Mentzer et al. 2001) defined supply chain as a set of three or more entities directly involved in the upstream and downstream flow of products, services, finances, and information. Christopher (2005) laid out another definition of the term supply chain as a set of relationships that produce value. These companies are able to provide services and products to their customers by fostering strategic alliances with several other companies to gain a competitive advantage. These relationships have fostered the business strategies by creating a win-win situation for each party through channels of agreement.

Past research has sought to understand governance mechanisms within the context of marketing channels. Marketing channels research has helped shed light into understanding how two or more parties in the channel relationship can benefit from the formal or informal rules

of exchange that would otherwise govern the relationship (Ghosh and John 1999). Hiede (Heide 1994) explained governance as a multidimensional phenomenon between a set of two or more parties. Governance as a theory suggests that partner relationships can be used to achieve joint value for both parties involved in the agreement (Ghosh and John 1999). Brown et al. (Brown et al. 2000) in their examination of several governance mechanisms highlighted how relational exchanges confines the risks of opportunism. In that, the relationships could enable the sharing of, norms and values by both parties. In this context, we use this theory to suggest the existence of co-branding strategies between two firms to enhance the value perception.

Relationship marketing theory is concerned with relational exchanges between two or more companies and establishing the length of that relationship for an ongoing period of time (Morgan and Hunt 1994). Relationship marketing theory has and can be applied to the logistics field to enhance relational exchanges between companies (Stock 1997). Ravald and Gronroos (Ravald and Grönroos 1996) use this theory in highlighting the role it plays as a value added strategy. Similar to this research they use this perspective in describing how the products and services offered should be defined (Ravald and Grönroos 1996).

Branding theories have played a large role in governing companies' competitive advantage. The term "brand" can be used to recognize the name, logo, symbol or any other forms of identity for a good or service from other brands (Aaker and Keller 1990; Batra et al. 2010; Fournier 1998; Keller 1993; Aaker 1996). Several industries, fields and academic dimensions use branding as a theory. The theory can most especially be used in the business field, predominantly in the logistics and distribution arena (Bastos and Levy 2012). The theory helps business managers in developing new co-branding strategies in establishing their products and services.

Cue Utilization theory describes the extrinsic and intrinsic cues associated with a given brand (Richardson et al. 1994). Products and services consist of a collection of cues that serve as indicators when intending to purchase the brand (Richardson et al. 1994). Extrinsic Cues associated with a product can serve as beneficial advantages for enhancing value perceptions. When these extrinsic attributes are emphasized extensively this could help position companies to foster strategic product alliances based on a perceived fit. Putting an emphasis on extrinsic cues which are product/service related attributes such as price, brand name, and packaging could build on perceptions of value, risks and quality (Chen et al. 2005).

These theories help define the constructs used in the study to determine the intention for companies to work together in achieving value. It is becoming more apparent in today's economy that companies are recognizing the need for creating more value for customers. While it may be difficult to measure value by each customer, companies can align their strategies by creating a perceived fit to create as much value as they can while being efficient.

## **HYPOTHESIS AND CONSTRUCTS**

The research determines the relationships between brand associations, perceived fit, perceived value and their relationship with intention. The underlying assumptions suggest the research examines the following hypothesis concerning the six different brands.

### ***Brand Awareness with brand Associations***

Brand awareness is a term used to reflect how well positioned a given brand is in the mind of a purchase consumer (Pappu et al. 2005; Posavac et al. 2001). Brand awareness can be assessed by both researchers and practitioners on how well consumers are able to recall the brand based on a given brand cue (Hoyer and Brown 1990; Aaker 1996; Yoo and Donthu 2001). This brand recall helps structure the brand associations of the given brand when intending to make a purchase or decision about the brand. (Aaker and Keller 1990; Keller 1993; Macdonald 2000; Aaker 1996; Yoo and Donthu 2001). Thus, we propose the relationship as:

H1a: The higher brand association and awareness of a given supply chain brand the higher the perceived value of the given supply chain partnership.

H1b: The higher brand association and awareness of a given supply chain brand the higher intention to partner with / choose the given third-party logistics company.

### ***Perceived Fit***

Perceived fit is characterized by the associations that are shared with the given brand or service (Chowdhury 2007). Thompson and Strutton (Thompson and Strutton 2012) suggest that fit can be conceptualized with respect to product category within a co-brand extension product. Chowdury and Kabir (Chowdhury 2007) also mention the reference of the perceived fit can be measured when matching the specific image of the parent brand and the extension product category. Chowdury and Kabir (Chowdhury 2007) mention that when perceived fit is considered to be good, the image and the associations of the parent brand is extended unto the co-brand extension. Therefore, we propose that:

H2a: The purchase consumers' perceptions of fit of the co-brand relationship will positively influence the supply chain perceived value.

H2b: The consumers' perceptions of fit of the co-brand relationship will positively influence the intention of the consumer to partner with / choose the third-party logistics company.

### ***Perceived Value***

Past research defines perceived value as an overall valuation of the efficacy of a given product based on perceptions of received about the brand based on what given to get the brand. Zeithaml (Zeithaml 1988) identified four different definitions of value based on low price, what the consumer wants in the product, as the quality of that is received for the price paid and what the consumer gets for what they give. For this research, we choose to focus on value as the quality the consumers associated with the price the consumer pays for the service or product and that value is whatever the consumer wants in the given brand. Although past research focused on customer value in terms of the individual customer, this study also examines the use of the value to emphasize value to the firm. Here value will be considered from the perspective of attributing the reputation of the product or service to also determine dimensions of value (Zeithaml 1988) thereby increasing the intention for the original brand to partner with the Logistics company based on the notion that:

H3: The perceived value of the supply chain brand will positively influence the consumers' intention to partner with the company when the perceived value of products/services imbues a known brand cue.



### ***Intention***

Behavioral intention researched in the past have to do with purchase intention when investigating consumer brands (Baldauf et al. 2003; Chang and Wildt 1994). Aaker (1991) made emphasis on how purchase intention is influenced when superior value is associated with the given brand. Consumer behavior plays a key role in the purchase and repurchase action of the given product or service (Smith and Swinyard 1983). This research emphasizes the intentions between two or more companies making the decision, with the purchase consumer being the original partner brand seeking to purchase or choose amongst logistics service providers. Leading to the development of the following hypotheses:

H4: A positive brand awareness from brand association, perceived fit and perceived value of supply chain imbued brand would positively influence the consumers' intention to partner with/choose the third-party logistics company.

## **METHODOLOGY**

### ***Overview***

The respondents had access to a survey link that randomly assigned each respondent to one of the three online experimental scenarios. Each scenario examined the partnership of two separate brands. The parent brand and the partner (Logistics Company) brand. The three scenarios, each differentiated from the other, captured three different situations. The research used the scenarios to capture brand associations, brand price and the given brand logo. The experimental design consists of three between-subject factors cues for each logistics brand. Each scenario depicted a situation where a parent brand is set in a situation where the manager of the parent company was to make a decision to collaborate with the given third-party logistics company to achieve value and quality at a given price for its end consumers.

### ***Sample***

Six hundred and fifteen participants had access to the survey link. We concluded the analysis with 530 completed and usable data. Sixty percent of the participants were current students. Seventy-two percent of participants have worked or are currently working, and nineteen percent of which had some logistics and distribution work experience. The sample size was predominantly undergraduate students, with 127 participants having a graduate degree and higher. Females comprise of approximately fifty-three percent of the total sample size. Fifty-nine percent of respondents varying ages from 18 and above live in families with a household income of over \$50,000.

### ***Method***

The three experimental scenarios each for six separate brands had similar questionnaires. The multi-item survey help measure various constructs to depict if the respondents would give similar answers and similar relationships within constructs. The survey depicted three perceived fits for brands with relatively high brand awareness and association (Best Buy and UPS), mid-range brand awareness and association (Barnes & Noble and Strand Shipping) and a low range brand awareness and association with a partner brand that had no logo (Conrad Electronic and Transplace Shipping). Several multi-items using a 7-point likert scale (Strongly agree - strongly disagree) were used to measure each companies' brand association such as their logos, past knowledge of the brand, and brand recall.

### *Analysis and Dependent Measures*

Reliability measurements based on scale reliability using cronbach's alpha help restructure the final items averaged to measure linearity between constructs, Table 1. We deleted several items to gain a high reliability measure of over 80%. This helped the research gain better insight on the strength of the relationships. Each constructs had cronbach's alpha of over .80. With no deletion of items, perceived value (PerVal) had a cronbach's alpha of over .90. For perceived co-brand fit (CoFit), we removed one item of the five original construct items. The final items used to measure brand association included nine items with a cronbach's alpha of 0.927.

Each scenario produced varying reliability measures. Scenario 3 having the two brands with a low brand association did not include several questions based on company logo and symbols. This helped to check for the manipulation of no given company logo for the low awareness logistics brand. The third scenario measured seven items for brand awareness with a cronbach's alpha of 0.862 compared to the nine for the other two scenarios.

The data was further analyzed using principal component factor analysis, Table 2. The analysis conducted varimax rotation for each of the scenarios. Of the original 27 items (24 for the third scenario without logos) used for the specific model in the research in Figure 1, 21 items were used for the final regression analysis for the first two scenarios. We used 18 items for the final analysis for third scenario without a brand logo. This showed an observation that the fourth item for intention to partner construct which was - I will encourage the partnerships of (Parent Company name) and (Logistics Company name)- loaded differently for the first scenario (Best Buy) than the last two (Barnes & Noble, and Conrad Electronics). Another observation was that the reliability scores for the scenarios 1, 2, and 3 loaded differently. Scenario 1 (Best Buy and UPS) had reliability scores of 0.866, Scenario 2 (Barnes & Noble and Strand shipping) had 0.964 and for Scenario 3 (Conrad Electronics and Transplace Shipping) a score of 0.946. Reliability scores for the last two scenarios were higher for the dependent variable construct. See Table 1.

Regression analysis showed if linear relationships exist between constructs. The research employed multiple regression analysis and single linear analysis (Cohen et al. 1983). Results from the stated analysis show how significant it is for companies to have high and obvious brand associations to their given product and service to enhance perceptions of fit, value and increase the intentions for future strategic partnerships. The analyses for the first scenario, with the partnerships of Best Buy and UPS, showed significant relationships between constructs ( $p < 0.00$ ) for the overall fit. The construct of interest captured Brand associations in the first scenario showed ( $p < 0.18$ ) as a significant relationship with the intention to partner with the TPL service provider. The second scenario with Barnes & Noble and Strand Shipping partnership also showed a significant relationship ( $p < 0.35$ ) between all constructs regarding mid-range brand awareness with brand association. For the third scenario, with Conrad Electronics and Transplace Shipping, the relationship also showed to be not significant. The relationship produced values that were higher than  $\alpha = 0.05$ . The analysis produces results that were significant for all other predictor variables however; brand awareness with brand

associations ( $p < 0.715$ ) was insignificant for the low range brand. This finding supports H1a and H1b.

Performing this regression analysis indicated significant relationships with all constructs: Brand Awareness with brand association of well-known brands, perceived fit with the two brands coming together and perceived value of the partnerships, to intention to partner and choose the TPL brand. For the overall analysis, the proven research analysis supported all hypotheses.

## **CONCLUSIONS AND MANAGERIAL IMPLICATIONS**

Co-branding strategies in different industries help build the brand equity of various brands. Previous research has failed to use this strategy in emphasizing value perceptions provided by logistics brands especially in the context of third-party logistics service providers. These third-party supply chain companies help create business strategies with a specific focus in distributing and transporting products and services from one consumer to another. Although these companies serve as external service providers, they provide Business-to-Business strategies and collaborations, joint ventures, strategic alliances and partnerships that can be fostered with an advantage to reduce costs and provide value (Paulraj et al. 2012; Hertz and Alfredsson 2003). However, many of these companies may not be recognized from other non-logistics companies they provide value added services for. Transporting and distributing products are not the only services TPL companies provide, these companies play a vital role in enhancing value perceptions.

Value added services characterize relationships within a supply chain. Companies are mostly willing to come together in providing services that will enable each partner involved maximize their overall effectiveness. These inter-firm relationships could help companies gain an advantage amongst other companies. These relationships are emphasized for both or all parties involved in the alliance to, in spite of having similar or dissimilar business functions, gain an advantageous exchange of resources, strategies, assets, and performance effectiveness (Lorenzoni and Lipparini 1999). By making known each company's distinct functions, the relationship or perceived fit can extrinsically, show their inter-firm relationships by enabling shared brand associations and reputation.

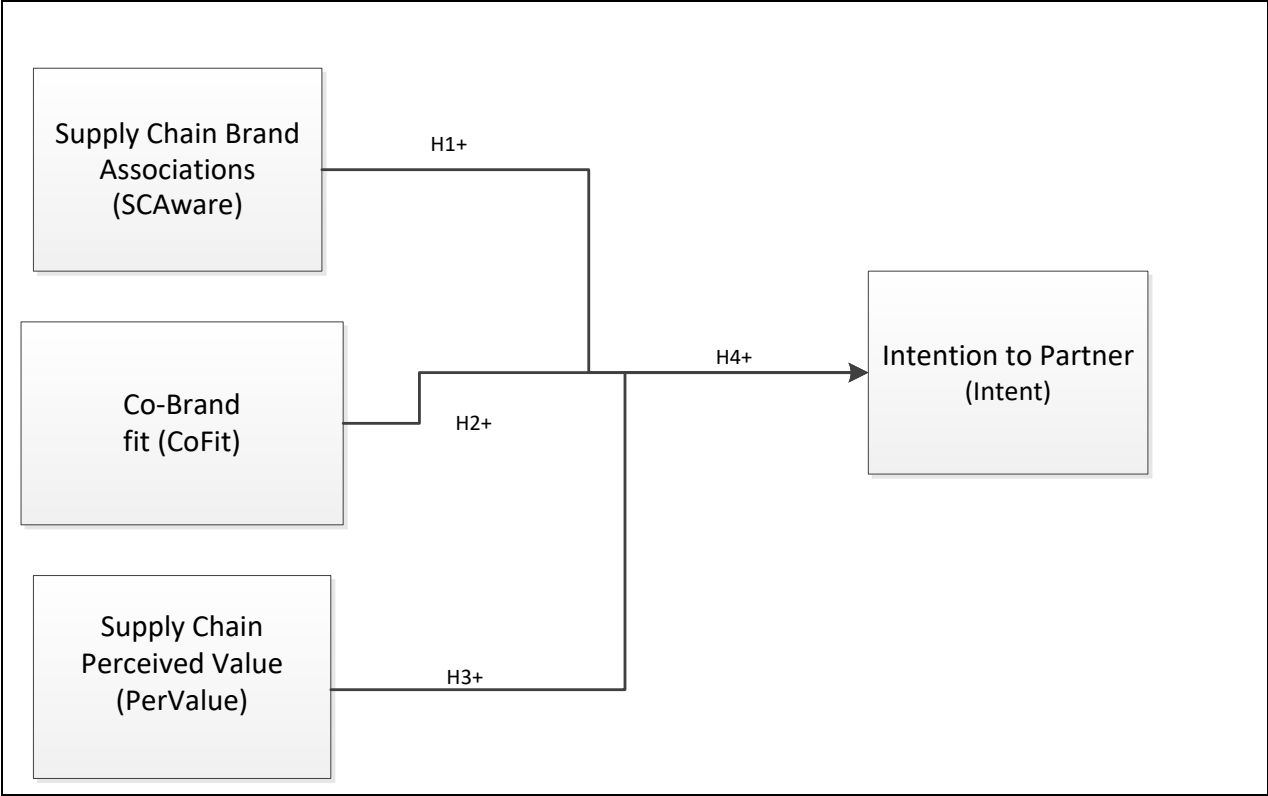
### ***Limitations and Future Research***

Each experiment had limitations of its own. While little quantitative measures and methods used were only limited to using regression analysis, reliability measures and confirmatory factor analysis alone, could not help measure for manipulations checks and other multi-collinearity measures. Future research could check for moderating effects with other construct or between constructs to determine a different result and significant differences between measures. The research could perform ANOVA, LISEREL, and Structural Equation Modeling (SEM) analysis as well to determine other findings.

Future research could use other constructs such as perceived price and quality to determine if this could significantly determine perceived value and intention within the context of the research topic. Other constructs could include commitment, trust, brand uniqueness, and willingness to partner with given partner brand.

Case study research could be conducted on specific companies already in a given partner relationship, or companies looking towards future partnerships to determine if the conclusions made can be applied in practical terms. Although the research had a significant sample size, future research could focus on specific research methods such as interviews, and case studies on managers for specific companies to avoid sampling bias. Research could investigate other means for generating other means of information regarding constructs.

**Figure 1:** Conceptual Research Model



**Table 1:** Constructs and Reliability measures –for constructs

Scenario 1			Scenario 2			Scenario 3		
SCCue_1	<b>0.918</b>	<b>0.927</b>	SCCue_1	<b>0.957</b>	<b>0.963</b>	SCAware_1	<b>0.886</b>	<b>0.91</b>
SCCue_2	<b>0.915</b>		SCCue_6	<b>0.956</b>		SCAware_4	<b>0.887</b>	
SCCue_3	<b>0.919</b>		SCCue_2	<b>0.956</b>		SCAware_5	<b>0.884</b>	
SCCue_4	<b>0.911</b>		SCCue_3	<b>0.964</b>		SCCue_1	<b>0.897</b>	
SCCue_5	<b>0.915</b>		SCCue_4	<b>0.956</b>		SCCue_2	<b>0.898</b>	
SCCue_6	<b>0.921</b>		SCCue_5	<b>0.956</b>		SCCue_3	<b>0.91</b>	
SCAware_1	<b>0.917</b>		SCAware_1	<b>0.964</b>				
SCAware_4	<b>0.926</b>		SCAware_4	<b>0.959</b>				
SCAware_5	<b>0.921</b>		SCAware_5	<b>0.957</b>				
CoFit_1	<b>0.898</b>	<b>0.902</b>	CoFit_1	<b>0.848</b>	<b>0.902</b>	CoFit_1	<b>0.890</b>	<b>0.917</b>
CoFit_2	<b>0.867</b>		CoFit_2	<b>0.875</b>		CoFit_2	<b>0.891</b>	
CoFit_3	<b>0.853</b>		CoFit_3	<b>0.883</b>		CoFit_3	<b>0.886</b>	
CoFit_5	<b>0.874</b>		CoFit_5	<b>0.886</b>		CoFit_5	<b>0.903</b>	
PerValue_1	<b>0.916</b>	<b>0.931</b>	PerValue_1	<b>0.926</b>	<b>0.943</b>	PerValue_1	<b>0.937</b>	<b>0.953</b>
PerValue_2	<b>0.900</b>		PerValue_2	<b>0.912</b>		PerValue_2	<b>0.922</b>	
PerValue_3	<b>0.900</b>		PerValue_3	<b>0.913</b>		PerValue_3	<b>0.942</b>	
PerValue_4	<b>0.926</b>		PerValue_4	<b>0.948</b>		PerValue_4	<b>0.951</b>	
Intent_1	<b>0.820</b>	<b>0.866</b>	Intent_1	<b>0.956</b>	<b>0.964</b>	Intent_1	<b>0.942</b>	<b>0.946</b>
Intent_2	<b>0.806</b>		Intent_2	<b>0.947</b>		Intent_2	<b>0.918</b>	
Intent_3	<b>0.801</b>		Intent_3	<b>0.945</b>		Intent_3	<b>0.912</b>	
Intent_4	<b>0.891</b>		Intent_4	<b>0.963</b>		Intent_4	<b>0.943</b>	

BARNES N NOBLE coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.248	.402		3.101	.002		
1 CoFit	.400	.068	.386	5.888	.000	.972	1.029
SCAware	.188	.062	.199	3.032	.003	.972	1.029

a. Dependent Variable: PerValue

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics
-------	-----------------------------	---------------------------	---	------	-------------------------

Proceedings of the Association of Collegiate Marketing Educators (2023)

	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.273	.391		3.256	.001		
1 CoFit	.405	.068	.391	5.992	.000	.980	1.020
SCCue	.182	.059	.202	3.095	.002	.980	1.020

a. Dependent Variable: PerValue

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.339	.490		2.735	.007		
1 SCAware	.071	.081	.063	.874	.384	.924	1.083
CoFit	.534	.067	.571	7.927	.000	.924	1.083

a. Dependent Variable: PerValue

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.427	.495		2.884	.005		
1 CoFit	.541	.066	.578	8.149	.000	.954	1.048
SCCue	.053	.080	.047	.659	.511	.954	1.048

a. Dependent Variable: PerValue

**Bestbuy UPScoefficients<sup>a</sup>**

Proceedings of the Association of Collegiate Marketing Educators (2023)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.519	.180		8.447	.000	
	SCCue	.060	.079	.046	.760	.448	.918
	CoFit	.519	.054	.579	9.665	.000	.918

a. Dependent Variable: PerValue

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.479	.182		8.116	.000	
	CoFit	.510	.054	.569	9.367	.000	.888
	SCAware	.097	.087	.068	1.115	.266	.888

a. Dependent Variable: PerValue



**Table 2:** Confirmatory Factor Analysis using Varimax rotation

Scenario 1 Best Buy and UPS Rotated Component Matrix					Scenario 2 Barnes & Noble and Strand Shipping Rotated Component Matrix					Scenario 3 Conrad Electronics and Transplace Shipping Rotated Component Matrix				
	Component					Component					Component			
	1	2	3	4		1	2	3	4		1	2	3	4
SCCue_4	<b>0.87</b>				SCCue_2	<b>0.914</b>				SCAware_5	<b>0.864</b>			
SCCue_2	<b>0.858</b>				SCCue_5	<b>0.914</b>				SCAware_4	<b>0.856</b>			
SCAware_1	<b>0.817</b>				SCCue_6	<b>0.913</b>				SCAware_1	<b>0.853</b>			
SCCue_1	<b>0.811</b>				SCCue_1	<b>0.901</b>				SCCue_1	<b>0.827</b>			
SCCue_5	<b>0.807</b>				SCCue_4	<b>0.9</b>				SCCue_2	<b>0.822</b>			
SCCue_3	<b>0.787</b>				SCAware_5	<b>0.898</b>				SCCue_3	<b>0.718</b>			
SCAware_5	<b>0.735</b>				SCAware_4	<b>0.86</b>				PerValue_1		<b>0.857</b>		
SCCue_6	<b>0.695</b>				SCCue_3	<b>0.782</b>				PerValue_2		<b>0.841</b>		
SCAware_4	<b>0.65</b>				SCAware_1	<b>0.739</b>				PerValue_3		<b>0.821</b>		
CoFit_5		<b>0.846</b>			PerValue_2		<b>0.884</b>			PerValue_4		<b>0.759</b>		
CoFit_3		<b>0.841</b>			PerValue_3		<b>0.883</b>			CoFit_3			<b>0.867</b>	
CoFit_2		<b>0.835</b>			PerValue_1		<b>0.856</b>			CoFit_1			<b>0.849</b>	
CoFit_1		<b>0.771</b>			PerValue_4		<b>0.767</b>			CoFit_5			<b>0.795</b>	
Intent_4		<b>0.652</b>	<b>0.429</b>		CoFit_1			<b>0.868</b>		CoFit_2			<b>0.782</b>	
PerValue_3			<b>0.829</b>		CoFit_3			<b>0.859</b>		Intent_3				<b>0.832</b>
PerValue_2			<b>0.822</b>		CoFit_2			<b>0.828</b>		Intent_2				<b>0.823</b>
PerValue_1			<b>0.76</b>		CoFit_5			<b>0.806</b>		Intent_1				<b>0.777</b>
PerValue_4		<b>0.401</b>	<b>0.713</b>		Intent_2				<b>0.847</b>	Intent_4		<b>0.418</b>		<b>0.702</b>
Intent_2				<b>0.839</b>	Intent_3				<b>0.831</b>					
Intent_3				<b>0.792</b>	Intent_1				<b>0.818</b>					
Intent_1				<b>0.706</b>	Intent_4			<b>0.413</b>		<b>0.756</b>				

**Appendix: Constructs, scale items, and source**

Constructs		Item questions		Source
Supply Chain Associations (SCAware)	SCAware	1	I am familiar with (Company name)	Aaker (1996) Aaker and Keller (1990) Yoo and Donthu (2001) Keller (1993)
		4	I have used (Company name) in the past	
		5	I have previous knowledge of (Company name)	
	SCCue	1	I know this image/symbol	
		2	I know what this logo looks like	
		3	I am aware of the services provided by this logo	
		4	I can recognize the (Company name) logo among other competing brands	
	5	I can quickly recall the logo (Company name)		
	6	Some characteristics of (Company name) come to mind quickly		
Co-Brand Fit (CoFit)	CoFit	1	It makes sense to use both (Parent Company name) and (Company name)	Thompson and Strutton (2012) Tauber (1988) Aaker and Keller (1990)
		2	I would probably use (Parent Company name) and (Company name) together	
		3	(Parent Company name) and (Company name) should work together	
		5	In my opinion (Parent Company name) and (Company name) getting together as partners is logical	
Supply Chain Perceived Value (PerValue)	PerVal	1	(Parent Company name) and (Company name) working together will offer good value for the price	Zeithaml (1988)
		2	(Parent Company name) and (Company name) services worth the price	
		3	(Parent Company name) and (Company name) prices are a good deal	
		4	The overall expected value of (Parent Company name) and (Company name) is excellent	
Intention to Partner (Intent)	Intent	1	I would partner with the (Company name) company	Aaker (1991) Chang and Wildt (1994) Smith and Swinyard (1983,
		2	I would use (Company name) as a shipping service	
		3	I would choose (Company name) as a shipping service	
		4	I will encourage the partnerships of (Parent Company name) and (Company name)	

## REFERENCES

- Aaker, D. A. 1991. "Managing Brand Equity: Capitalising on the Value of a Brand Name." *New York*.
- Aaker, D. A. 1996. "Measuring Brand Equity across Products and Markets." *California Management Review* 38 (3):102-02.
- Aaker, D. A., and Keller, K. L. 1990. "Consumer Evaluations of Brand Extensions." *The Journal of Marketing*:27-41.
- Baldauf, A., Cravens, K. S., and Binder, G. 2003. "Performance Consequences of Brand Equity Management: Evidence from Organizations in the Value Chain." *Journal of Product & Brand Management* 12 (4):220-36.
- Bastos, W., and Levy, S. J. 2012. "A History of the Concept of Branding: Practice and Theory." *Journal of Historical Research in Marketing* 4 (3):347-68.
- Batra, R., Lenk, P., and Wedel, M. 2010. "Brand Extension Strategy Planning: Empirical Estimation of Brand-Category Personality Fit and Atypicality." *Journal of Marketing Research* 47 (2):335-47.
- Brown, J. R., Dev, C. S., and Lee, D.-J. 2000. "Managing Marketing Channel Opportunism: The Efficacy of Alternative Governance Mechanisms." *The Journal of Marketing*:51-65.
- Chang, T.-Z., and Wildt, A. R. 1994. "Price, Product Information, and Purchase Intention: An Empirical Study." *Academy of Marketing Science, Journal* 22 (1):16-27.
- Chen, T.-y., Chang, P.-L., and Chang, H.-S. 2005. "Price, Brand Cues, and Banking Customer Value." *International Journal of Bank Marketing* 23 (3):273-91.
- Chowdhury, M. H. K. 2007. "An Investigation of Consumer Evaluation of Brand Extensions." *International Journal of Consumer Studies* 31 (4):377-84.
- Christopher, M. 2005. *Logistics and Supply Chain Management: Creating Value-Adding Networks*: Pearson education.
- Cohen, J., Cohen, P., West, S. G., and Aiken, L. S. 1983. "Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences."
- Fournier, S. 1998. "Consumers and Their Brands: Developing Relationship Theory in Consumer Research." *Journal of Consumer Research* 24 (4):343-53.
- Ghosh, M., and John, G. 1999. "Governance Value Analysis and Marketing Strategy." *The Journal of Marketing*:131-45.
- Heide, J. B. 1994. "Interorganizational Governance in Marketing Channels." *The Journal of Marketing*:71-85.
- Hertz, S., and Alfredsson, M. 2003. "Strategic Development of Third-party Logistics Providers." *Industrial Marketing Management* 32 (2):139-49.
- Hoyer, W. D., and Brown, S. P. 1990. "Effects of Brand Awareness on Choice for a Common, Repeat-Purchase Product." *Journal of Consumer Research*:141-48.
- Keller, K. L. 1993. "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity." *The Journal of Marketing*:1-22.
- Lorenzoni, G., and Lipparini, A. 1999. "The Leveraging of Interfirm Relationships as a Distinctive Organizational Capability: A Longitudinal Study." *Strategic Management Journal* 20 (4):317-38.
- Macdonald, E. 2000. "Brand Awareness Effects on Consumer Decision Making for a Common, Repeat Purchase Product: A Replication." *Journal of Business Research* 48 (1):5-15.
- Maloni, M. J., and Carter, C. R. 2006. "Opportunities for Research in Third-Party Logistics." *Transportation Journal*:23-38.

- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., and Zacharia, Z. G. 2001. "Defining Supply Chain Management." *Journal of Business Logistics* 22 (2):1-25.
- Morgan, R. M., and Hunt, S. D. 1994. "The Commitment-Trust Theory of Relationship Marketing." *The Journal of Marketing*:20-38.
- Pappu, R., Quester, P. G., and Cooksey, R. W. 2005. "Consumer-Based Brand Equity: Improving the Measurement—Empirical Evidence." *Journal of Product & Brand Management* 14 (3):143-54.
- Paulraj, A., Chen, I. J., and Lado, A. A. 2012. "An Empirical Taxonomy of Supply Chain Management Practices." *Journal of Business Logistics* 33 (3):227-44.
- Porter, M. E. 2008. *Competitive Advantage: Creating and Sustaining Superior Performance*: Free press.
- Posavac, S., Sanbonmatsu, D., and Kardes, F. 2001. "The Effects of Strengthening Category-Brand Associations on Consideration Set Composition and Purchase Intent in Memory-Based Choice." *Advances in Consumer Research* 28.
- Ravald, A., and Grönroos, C. 1996. "The Value Concept and Relationship Marketing." *European Journal of Marketing* 30 (2):19-30.
- Richardson, P. S., Dick, A. S., and Jain, A. K. 1994. "Extrinsic and Intrinsic Cue Effects on Perceptions of Store Brand Quality." *The Journal of Marketing*:28-36.
- Smith, R. E., and Swinyard, W. R. 1983. "Attitude-Behavior Consistency: The Impact of Product Trial Versus Advertising." *Journal of Marketing Research* 20 (3):257-67.
- Stock, J. R. 1997. "Applying Theories from Other Disciplines to Logistics." *International Journal of Physical Distribution & Logistics Management* 27 (9/10):515-39.
- Tauber, E. M. 1988. "Brand Leverage: Strategy for Growth in a Cost-Control World." *Journal of Advertising Research* 28 (4):26-30.
- Thompson, K., and Strutton, D. 2012. "Revisiting Perceptual Fit in Co-Branding Applications." *Journal of Product & Brand Management* 21 (1):15-25.
- Yoo, B., and Donthu, N. 2001. "Developing and Validating a Multidimensional Consumer-Based Brand Equity Scale." *Journal of business research* 52 (1):1-14.
- Zeithaml, V. A. 1988. "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence." *The Journal of Marketing*:2-22.

**STRATEGIC RESOURCES, SUPPLY CHAIN AGILITY, AND  
OPERATIONAL PERFORMANCE: MODERATING ROLE OF  
SUPPLY UNCERTAINTY**

**Karthik NS Iyer, University of Northern Iowa  
Prashant Srivastava, University of Tennessee at Chattanooga**

---

**EXTENDED ABSTRACT**

Today's supply chains grapple with the challenges of an extremely dynamic marketplace that are characterized very high levels of uncertainty and an exceedingly demanding customer base which is seeking more customized market offerings (e.g., Vanpoucke et al., 2014). Applying resource-based view (RBV) (Barney 1991) and the dynamic capabilities theory (Eisenhardt and Martin, 2000), the study examines supply chain partnership resources as determinants of agile capability, and the latter's impact on operational performance. The study also investigates the interactive influence of supply uncertainty on the relationship between agility and operational performance (Vanpoucke et al., 2014).

As a predominant theoretical perspective for strategy, the resource-based view (RBV) explains competitive advantage and performance differentials across firms (e.g., Barney, 1991). RBV primarily argues that firms control heterogeneously distributed resource bundles, and these resource differentials persist over time, delivering performance advantages to firms endowed with such resource superiority (Newbert, 2008). An extended RBV view also encompasses heterogeneously distributed capabilities as contributing to performance benefits (e.g., Eisenhardt and Martin, 2000; Newbert, 2008). Another RBV stream argues additionally that resource endowments in firms have only potential value, whereas capabilities such as agility, with its inherent ability to configure and deploy resource combinations, are the primary contributors in satisfying customers and generate performance improvements (e.g., Newbert, 2008, Iyer et al., 2014, Srinivasan et. al., 2020).

The sample to test the proposed hypotheses will consists of top-level executives. A cross-sectional field survey method will be employed to collect data. All measures will be adapted from well established sources. The hypothesized relationships will be tested using partial least square (PLS) path modeling with SmartPLS 4 software (Ringle, et al. 2022). Organizational size and age will be used as the control variables for our study as these might present an alternative explanation for the hypothesized relationships.

**REFERENCES**

Barney, Jay (1991), "Firm Resources and Sustained Competitive Advantage," *Journal of Management*, 17 (1), 99–120.

Eisenhardt, K. M. and Martin, J. A. (2000), “Dynamic capabilities: what are they?”, *Strategic Management Journal*, Vol. 21 No. 10-11, pp. 1105-1121.

Iyer, K. N., Srivastava, P. and Rawwas, M. Y. (2014), “Aligning supply chain relational strategy with the market environment: Implications for operational performance”, *Journal of Marketing Theory and Practice*, Vol. 22 No. 1, pp. 53-72.

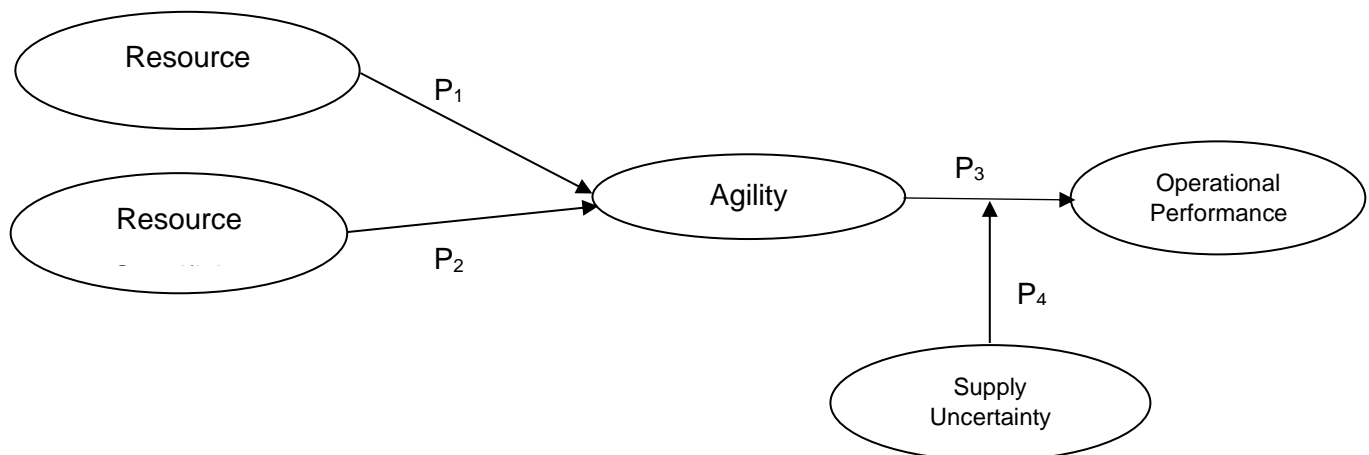
Newbert, S. L. (2008), “Value, rareness, competitive advantage, and performance: a conceptual-level empirical investigation of the resource-based view of the firm”, *Strategic Management Journal*, Vol. 29 No. 7, pp.745-768.

Ringle, C. M., Wende, S., and Becker, J.-M. 2022. "SmartPLS 4." Oststeinbek: SmartPLS GmbH, <http://www.smartpls.com>.

Srinivasan, M., Srivastava, P., & Iyer, K. N. (2020). Response strategy to environment context factors using a lean and agile approach: Implications for firm performance. *European Management Journal*, 38(6), 900-913.

Vanpoucke, E., Vereecke, A., & Wetzels, M. (2014). Developing supplier integration capabilities for sustainable competitive advantage: A dynamic capabilities approach. *Journal of Operations Management*, 32(7-8), 446-461.

**Figure 1: The Conceptual Model**



## **WATER MANAGEMENT: A STUDY FROM STAKEHOLDER'S PERSPECTIVE**

**Senchang Hu, Tsinghua University**  
**Wenzhe Tang, Tsinghua University**

---

### **ABSTRACT**

The water-related affairs of Region A involve many stakeholders, and the extant studies do not sufficiently interpret empirical relations of cooperation among government, water suppliers, and end-users. From the perspective of stakeholder cooperation, this paper proposes a framework for integrated water affairs management, theoretically reveals the working mechanism of the stakeholder cooperation mechanism for water affairs integration, and analyzes the current situation of water-related stakeholder cooperation management. The results show that it is very important to establish a water-related stakeholder cooperation mechanism that integrates watersheds and regions, flood control, environmental protection and other issues. The realization of the elements of the water conservancy mechanism shows that all parties establishing important roles. An integrated water management system is potential to build mutual trust among all parties, optimize the allocation of resource elements, reduce supervision costs, and strengthen water conservancy management. Active enforcement is very related to other factors and reflects the overall performance of cooperation. An incentive/restriction mechanism is suitable to promote the cooperation mechanism between stakeholders.

Keywords: water management; cooperative management; incentive mechanism; restraint mechanism

## MARKETING STRATEGY

---

### **SAFETY CULTURE: EFFECTS ON CUSTOMER/EMPLOYEE SATISFACTION AND FIRM PERFORMANCE**

**Taehoon Im, Sam Houston State University**

**Vikas Mittal, Rice University**

**Shrihari Sridhar, Texas A & M University**

---

#### EXTENDED ABSTRACT

Firms may face substantial costs due to safety crises, and such costs arise when their products and services harm customers or when they lack employee safety at the workplace. For example, IKEA paid \$16.6 million to settle a lawsuit with the family of a 2-year-old boy who died after being pinned by its Malm dresser, and subsequently recalled against a number of its dressers with 186 incidents reported and more than 90 children injured (Keneally 2017). Amazon spent \$500 million in employee bonus to quell its reputation as a COVID-19 sweatshop (Cao 2020) after releasing more than 19,000 front-line workers got COVID-19 (Palmer 2020).

To address these safety issues, firms have gone at length to invest in establishing and promoting safety culture within their organizations. Safety culture is defined as “*individual and group values, attitudes, perceptions, competencies and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization’s health and safety management*” (Advisory Committee on Safety of Nuclear Installations 1993, p. 23). Embracing the importance of safety culture, Total Energies launched its safety culture program to achieve zero fatalities in 2015 (Total Energies 2020), and Samsung monitors its internal safety culture level to maintain workplace safety on a yearly basis (Samsung 2021). A National Safety Council survey of Chief Financial Officers (CFOs) shows that 60% believed every \$1 invested in safety returned more than \$2 (National Safety Council 2010). Despite these anecdotal reports, there has been no systematic evidence linking safety culture to firm performance yet.

The core argument of this paper is that prior empirical research examining the benefits of safety culture has narrowly focused on its safety outcomes (i.e., customer/employee safety outcomes) while excluding a broader set of its other outcomes (e.g., customer satisfaction, employee satisfaction and firm financial outcomes). There are existing papers that link safety culture to customer safety outcomes or employee safety outcomes, but not both. In this paper, we link safety culture to both customer and employee safety outcomes. Also, except for one existing



paper, none of them links safety culture to customer and/or employee satisfaction. This may be a reason for the lack of evidence linking safety culture to firm financial outcomes. Because customer and satisfaction are the most reliable predictors of firm performance, they provide a critical pathway for realizing the full potential of safety culture to firms. That is, we argue in this paper that the association between safety culture and firm performance (a.k.a., firm financial outcomes) is mediated via customer and employee satisfaction.

We propose a conceptual framework to evaluate a more comprehensive and generalizable safety culture-firm performance chain link. We report three studies that empirically evaluate this conceptual framework. Study 1 is in a *multi-industry* setting, using data collected from surveys of 752 employees covering 557 companies in a variety of industries in the United States. Study 2 is in a *single-firm* setting, merging data collected from surveys of a facility management company's 114 customers and 191 employees and financial information collected from the company's customer relationship management (CRM) accounts across multiple business sites. Study 3 is in a *business-to-business* (B2B) setting, merging data collected from surveys of 1,227 B2B managers covering 64 companies in the United States, safety-related news stories and their event sentiment scores (ESS) collected from RavenPack News Analytics and financial information collected from Standard & Poor's Compustat. These three studies consistently shows that there is a positive and significant association between safety culture and firm performance, mediated via customer/employee safety outcomes and customer/employee satisfaction. A synthesis of the effects across Study 1-3 shows that a one-standard-deviation increase in safety culture is associated with a .71% increase in sales (equivalent to \$912.93 million), .82% increase in gross margin (equivalent to \$452.20 million) and .86% increase in Tobin's q.

The current work makes two important contributions to extant literature. First, this paper provides a new measure of safety culture. Existing measures of safety culture tend to be heavily idiosyncratic to a particular industry. For example, 49 out of 53 papers are based on single industry samples, and 34 of them focused only on healthcare industry. This paper develops a new measure of safety culture that is applicable to multiple industries. Second, to the best of our knowledge, this paper is the first to shed light on the effects of safety culture on customers, employees and firms altogether. Prior empirical research on safety culture tests a partial link with either customer or employee safety outcomes. Statistically, such empirical approach may provide biased results due to omitted variables. This paper examines the effects of safety culture in terms of customer safety outcomes, employee safety outcomes, customer satisfaction, employee satisfaction and firm performance. By establishing a more comprehensive and generalizable safety culture-firm performance chain link, including formal tests of mediation, this paper will enable firms to better assess the direction and magnitude of the association between safety culture and firm performance.

## REFERENCES

- Advisory Committee on Safety of Nuclear Installations. (1993). *Organization for safety*. London: HSE Books.
- Cao, S. (2020, June 29). Amazon gives \$500M coronavirus bonus to workers—but there's a hidden cost. *Observer*. <https://observer.com/2020/06/amazon-gives-worker-thank-you-bonus-after-canceling-pay-raise-coronavirus/>

Proceedings of the Association of Collegiate Marketing Educators (2023)

- Keneally, M. (2017, November 22). Ikea recalls dresser again after death of 8th child. *ABC*.  
<https://abcnews.go.com/US/ikea-recalls-dresser-death-8th-child/story?id=51297499#:~:text=%E2%80%94%2D%2D%20Ikea%20is%20recalling%20a%20gain,in%20his%20bedroom%20in%20May>.
- National Safety Council (2021). Work injury costs. Retrieved from December 31, 2021, from  
<https://injuryfacts.nsc.org/work/costs/work-injury-costs/#:~:text=The%20total%20cost%20of%20work,administrative%20expenses%20of%20%2459.7%20billion>.
- Palmer, A. (2020, October 1). Amazon says more than 19,000 workers got Covid-19.  
<https://www.cnbc.com/2020/10/01/amazon-says-more-than-19000-workers-got-covid-19.html>
- Samsung (2021). Creating a culture of safety with a solid health and safety. Retrieved from February 1, 2021, from <https://semiconductor.samsung.com/sustainability/labor-human-right/safety-first/creating-a-culture-of-safety-with-solid-health-safety-management-system/>.
- Total Energies. (2020). Sharing our safety culture. Retrieved March 15, 2020, from  
<https://www.total.com/commitment/protecting-people/industrial-safety/culture>.

## **THE DEVELOPMENT OF ENTREPRENEURIAL MARKETING THOUGHT**

**Jun Yu, University of Louisiana Monroe**  
**Joyce Zhou, University of Louisiana Monroe**

---

### **EXTENDED ABSTRACT**

The purpose of this research is to trace the evolution of entrepreneurial marketing (EM) thoughts, provide a resource for understanding the development of EM as an area of inquiry, and integrate several important lines of thoughts into a new EM framework. We first review some early thoughts regarding EM by pioneer entrepreneurship scholars dating back to the 1700s, and then examine the rapidly growing EM literature since the 1990s, as the number of peer-reviewed journal articles in EM since then vastly exceeds the numbers in prior decades (Amjad et al., 2020). Specifically, we look into the different ways EM is defined, the EM frameworks that have emerged, and the dimensions of EM proposed in extant research. We then propose a new concept, the Entrepreneurial Marketing Cycle, which integrates some of the important thoughts that, we hope, will also help resolve some of the conflicting views on EM.

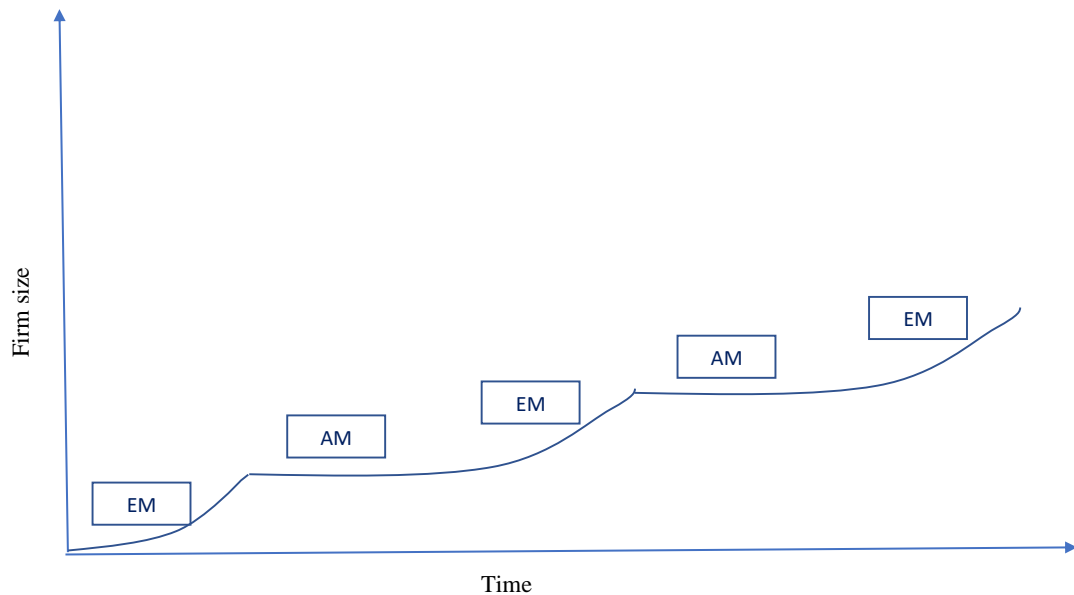
Richard Cantillon, widely considered the father of economic theory, was the first to consider the role of entrepreneurs in the economy (Brown and Thornton, 2013). Well known in the entrepreneurship field for his thoughts on “creative destruction”, Schumpeter’s (1942) argued that the entrepreneur is the innovator that creates new products, new methods of production and transportation, new markets, and new types of industrial organization. Drucker, one of the most influential thinkers on management, made great contributions to both entrepreneurship and innovation (Drucker, 1985). Drucker argued that organizations, both large and small, or established and new, have to be innovative and entrepreneurial to thrive, or even just to survive.

As the field of entrepreneurship experienced a rapid growth since the 1980s, the EM field also has seen fast growth. There are few studies focusing on EM in the 1980s but the number of published papers grew tremendously since the early 1990s. These can be seen by examining the EM literature through several perspectives. The foremost is the efforts of a number of researchers to define the field of EM. As the EM field developed, several EM frameworks and models were proposed, along with the dimensions and components of EM.

An early attempt to define EM was given by Stokes (2000), who stated “the entrepreneurial marketing concept is focused on innovations and the development of ideas in line with an intuitive understanding of market needs” (Stokes, 2000: p. 13). Since then, several authors have tried to refine the definitions of EM. Notable examples include Morris et al. (2002), Whalen et. al. (2015), and Alqahtani and Uslay (2020). EM discussions prior to 2000 were mostly limited to explaining EM as a phenomenon, whereas more recent writings have started more in-depth explorations of EM frameworks, theories, and models. The earlier frameworks were all based on the common observation that new businesses typically start their marketing process targeting a small circle of family, friends, or acquaintances, and such targeting is often on ad hoc basis, lacking formal marketing planning. As they get more sales and legitimacy in the marketplace, these firms’ marketing activities become more formalized, with

specially designated employees for the various marketing functions put in place over time. It appears that these thoughts suggest EM is the strictly purview of new ventures.

As can be observed from the different definitions of EM and the frameworks that have emerged in the literature, the EM field appears to be a scattered one. We propose another view of EM that also integrates the AM elements, as is shown in the figure below. It describes the dynamic nature of the firm, and how that is related to EM.



Here, we recognize that marketing in general, and EM in particular, is about creating value through innovation, which allows a firm to create and maintain competitive advantage. Successful disruptive innovations help create a favorable, but transitory, market advantage through superior value creation. At this time the firm may opt to use the AM approach. Over time, the return from that advantageous market position would diminish due to competition dynamics in the marketplace, and the firm may need to start a new cycle of disruptive. As a result, a new cycle of EM would start. This pattern is especially clear in the technology sector.

**REFERENCES**

Alqahtani, N., & Uslay, C. (2020), “Entrepreneurial marketing and firm performance: Synthesis and conceptual development” *Journal of Business Research*, Vol 113, pp. 62–71.

Amjad, T., Rani. S. A., Sa’atar, S. B. (2020). Entrepreneurial Marketing Theory: Current Developments and Future Research Directions. *SEISENSE Journal of Management*, 3(1), 27-46.

Brown, C. & Thornton, M. (2013). How entrepreneurship theory created economics. *The Quarterly Journal of Austrian Economics*. 16(4), 401-419

Drucker, P. (1985). *Innovation and Entrepreneurship*. New York: Harper & Row.

Schumpeter, J. 1942. *Capitalism, Socialism, and Democracy*. New York: Harper & Bros.

Stokes, D. (2000). Putting entrepreneurship into marketing: The process of entrepreneurial marketing. *Journal of Research in Marketing and Entrepreneurship*, 2(1), 1-16.

Whalen, P. S., & Akaka, M. A. (2015), A dynamic market conceptualization for entrepreneurial marketing: the co-creation of opportunities. *Journal of Strategic Marketing*, 24(1), 61-75.

**BITCOIN AS DIGITAL GOLD (STUDY ON THE LIMITATION  
OF BITCOIN AS OFFICIAL CURRENCY)**

**Moonhwa Cho, University of International Business and Economics**

**Samuel Jung, University of International Business and Economics**

**Jason Chung, University of International Business and Economics**

---

**ABSTRACT**

Blockchain technology is a highly applicable disruptive innovation that might potentially impact not only the financial sector but also economically. One of the essential characteristics of the industrial revolution 4.0 is cryptocurrency. The necessity for further research arises from the gloomy expectation for the rejection of the current financial system caused by the exo-China and the possibility of cryptocurrency being one of the global standard currencies. Bitcoin is a representative cryptocurrency based on blockchain technology. The previous Resources were on decentralization, sustainability, transparency, security, and traceability issues. Blockchain can be summarized as a system where all the tractions are recorded in a block, and those blocks are shared and verified by all the users and saved in the chain of blocks in the system. Two of the most prominent properties of blockchain technology are security and transparency, which helps provide a single version of the case and the whereabouts of the case. The supporters of blockchain-based society claim that decentralized systems will eventually bring about a more egalitarian world. The application of Blockchain to the technology should be confined to the role of a corporate voting instrument but not the accounting and ownership reporting. In this paper, we study the previous research on bitcoin in dimensional aspects. Based on the fluent literature bases, this paper will analyze bitcoin's problems, why authorities cannot permit it officially, and why national institutions prevent bitcoin from being a widely accepted tools suitable for financial transactions. This paper will help to understand bitcoin technology both economically and financially.

Keywords: bitcoin, gold, digital asset, transparency, ledger, stability

## RETAILING AND SERVICES

---

### PREFERENCE FOR ONLINE SHOPPING: THE INFLUENCE OF PERSONAL TRAITS AND PRODUCT TYPES

Yong Zhang, Hofstra University

---

#### EXTENDED ABSTRACT

It is fair to state that the global pandemic due to Covid-19 has fundamentally altered many people's lives as well as the manner in which business is conducted for many companies in the past few years. As consumers increasingly turned online to make purchases, marketers, particularly, e-marketers, have increasingly devoted much efforts in trying to understand how consumers decide to shop online and how they behave in various online situations. This research focuses on two important factors: consumer's individual trait, such as, their need for cognition, and a product's unique characteristic or types in a consumer's particular consumption situation.

**Online Shopping Preference** The rapid rise of e-commerce has caused a heightened level of interests leading to a plethora of research focusing on many factors in the study of consumer preference and reaction to online shopping. For example, research has found that their preference and reaction are affected by factors such as types of products, social interaction, whether goods or services, and level of trust. However, fewer studies have focused on consumers themselves, that is, the innate consumer state or individual differences in opting for online shopping and eventually online purchases.

**Need for Cognition** This research argues that individual and personality characteristics such as a person's need for cognition is an important factor influencing a person's tendency to shop online. Indeed, an individual's need for cognition has been identified as one of the precedent variables contributing to a variety of consumer involvement (see Andrews, Durvasula, and Akhter 1990). It is argued that individual difference in the ability and desire to dispense cognitive effort can be a more fundamental variable that determines a person's predisposition toward more skill-requiring behaviors to navigate through online shopping websites and portals. The contemporary conceptualization of such a desire, known as the need for cognition (NFC), is defined as the statistical tendency of, and intrinsic enjoyment individuals derive from engaging in effortful information processing (Cacioppo and Petty 1982). We argue that the psychological process of consumers is governed, at least in part, by their intrinsic motivation to meet the challenges of an online purchasing situation. Consumers with low NFC may process a message differently than their high NFC counterparts. They may be less inclined to think about or mentally debate about the logic and steps involved, and consequently, demonstrate less tendency in making purchases online due to the extra effort required. High-NFC consumers, on the other hand, will be more predisposed to think about the logic of the purchase, and weigh the pros and cons more carefully

Proceedings of the Association of Collegiate Marketing Educators (2023) as they ponder about or evaluate a purchase, and are less intimidated by the skill-requiring task of online purchasing.

**Product Types** Ample evidence suggests that product type can be an important determinant of a variety of consumer response variables. For this study, we looked at the affective meaning of a product to the consumer. Research in marketing has categorized products into two types based on the affective states evoked (Dhar and Wertebroch 2000). Hedonic products are pleasure-oriented and their consumption is primarily induced by the desire for sensory experience, fantasy, and fun. Products with such characteristics can cause consumers to experience a feeling of self-indulgence and pleasure. In contrast, utilitarian products appeal to the rational side as functional and down-to-earth, offering cognitively oriented benefits. Utilitarian product consumption results in less sensual pleasure for the consumer.

The following hypotheses are proposed and tested using experiments:

**H1:** Consumer Need for Cognition influences the attitude toward online shopping. High-NFC consumers will likely demonstrate more preference for online shopping than Low-NFC consumers.

**H2:** Attitude toward online shopping is likely further moderated by the product type:

**H2a:** The preference for shopping online will be more pronounced for high-NFC consumers who shop for utilitarian products than for hedonistic products.

**H2b:** The preference for shopping online will be the least significant for low-NFC consumers who shop for hedonistic product compared to utilitarian products

A two (between-subject) by two (within-subject) and balanced experiment using a small sample was conducted to test the hypotheses and initial results provided support of the hypotheses. Likert-type scales were used to measure online shopping preference and others measures. Specifically, high-NFC consumers generally demonstrated more propensity to engage in online shopping activities and behaviors than low-NFC consumer who showed less such tendency. More importantly, the hypothesized moderation by product type also emerged from the data, showing that within the high-NFC condition, the product type moderation was more pronounced than among low-NFC subjects. Such moderation may or may not persist to high-level responses such as intention to purchase or amount spent online which is to be revealed with future research. Implications of the findings are discussed.

## REFERENCES

- Andrews, J. C., Durvasula, S., & Akhter, S. H. (1990). A Framework for Conceptualizing and Measuring the Involvement Construct in Advertising Research, *Journal of Advertising*, 19(4), 27-40.
- Cacioppo, J. T. & Richard E. P. (1982). The Need for Cognition. *Journal of Personality and Social Psychology*, 42(1), 116-131.
- Dhar, R., & Wertebroch, K. (2000). Consumer Choice Between Hedonic and Utilitarian Goods. *Journal of Marketing Research*. 37(1), 60-71.



# **EXPLORING SHOPPERS' DECISION-MAKING STYLES AND ACCEPTANCE IN AN OMNICHANNEL ENVIRONMENT**

**Aisha Muthaffar, The University of Newcastle & Umm AL-Qura University**  
**Sonia Vilches-Montero, The University of Newcastle**

---

## **ABSTRACT**

The omnichannel approach offers a holistic and unified shopping experience by integrating all available channels. This study aimed to understand how consumers' decision-making styles (maximisers vs satisficers) differ within omnichannel retail shopping. Data were collected through a questionnaire = 227 responses. Results revealed the positive effect of maximisers (as opposed to satisficers) on attitude and intention to use omnichannel retailing and satisfaction with the shopping experience. Further, the role of perceived ease of use and usefulness was explored. This study contributed to omnichannel by confirming the different psychological effects and how they play an important role in omnichannel retailing.

## **INTRODUCTION**

The retail industry's latest revolution promotes moving from a multichannel to an omnichannel approach (Mishra et al., 2021; Verhoef et al., 2015). *Omni* is a Latin word that means "all" or "the universe" (Lazaris & Vrechopoulos, 2014; Rigby, 2011). Omnichannel retailing is gaining considerable attention in both business and academic research. Prior reports have shown that applying omnichannel strategy contributes in increasing purchase frequency, order value, and customer retention and engagement compared to a single-channel strategy (Hossain et al., 2020). Despite the importance of omnichannel retailing in business, it is also gaining attention from academia, where it is ranked as the third most important topic in service research (Shen et al., 2018; Shi et al., 2020). Omnichannel retailing has been defined as "the synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and performance over channels are optimised" (Verhoef et al., 2015, p. 176).

The omnichannel concept has yet to mature and is still in its early stages (Lynch & Barnes, 2020; Shen et al., 2018). Recent research on omnichannel in the information system and marketing domains has focused mainly on developing a research agenda (Lynch & Barnes, 2020; Mishra et al., 2021; Mosquera et al., 2017; Shen et al., 2018) and distribution and logistics (Beck & Rygl, 2015; Chen et al., 2018; Lazaris & Vrechopoulos, 2014; Shi et al., 2020; Verhoef et al., 2015). However, research on omnichannel as part of customer decision-making journey is scarce. Consumers have become more demanding than ever and their shopping behaviour has changed to cope with the new shopping approach and technology, such as Virtual Reality (VR), Augmented

## Proceedings of the Association of Collegiate Marketing Educators (2023)

Reality (AR) and scan and go. In an omnichannel shopping environment, shoppers can combine and use various shopping channels to accomplish a single purchase journey. For example, they can use an online website searching for product information, reading customer reviews while shopping at the physical store, and then purchase the product from an online channel using smartphone simultaneously. Forrester's report, for example, found that consumers' expectations concerning omnichannel shopping increased (Research, 2014). The study reports that 71% of customers expect to view in-store inventory online, while 50% expect to purchase online and pick up in store. This results in increasing the concern that omnichannel retailing needs to make an effort to understand their customers' expectations, including knowing their customers very well, providing them with personalised treatment and coordinating their experience across all channels and touchpoints (Accenture, 2017).

Omnichannel consumers represent an important segment of the new era in retail industry, and therefore recognising the importance of developing and retaining omnichannel consumers is critical to any firm's strategic success (Payne et al., 2017). In addition to that behaviour within the omnichannel approach is not the same for all individuals (Rodríguez-Torrico et al., 2020). Several studies have highlighted the importance of studying consumer behaviour in an omnichannel setting to provide consumers with a seamless shopping experience (Silva et al., 2018). Therefore, it is crucial to explore the effect of consumers decision-making styles in the omnichannel context (Gao et al., 2021). Decision-making style, which can be defined as the tendency to merely satisfy or maximise the outcomes from a decision, form the individual characteristic that predicts the decision-making process (Cheek & Schwartz, 2016; Karimi et al., 2015). When making decisions, individuals with a higher tendency to maximise invested time and effort in exploring and evaluating alternatives to attain the optimal outcome. In contrast, individuals with the lower maximising tendencies (satisficers) tend to choose a satisfactory option with spending less time and effort (Schwartz et al., 2002). However, the effects of consumers' decision-making styles on the practice of omnichannel shopping remain unknown.

A limited number of studies have examined how consumers use and adopt omnichannel shopping (Kazancoglu & Aydin, 2018), as the omnichannel is a new concept (Dethlefs et al., 2022). This paper aims to address the above gaps by exploring the differences among maximisers and satisficers with respect to attitude, intention, and satisfaction with the omnichannel. Omnichannel shopping allows consumers to combine multiple available channels and technologies to perform a particular task. For example, they use mobile apps or websites to compare prices, download coupons, make purchases online and ultimately pick up their purchases in physical stores (Sopadjeva et al., 2017). Consumers also use in-store digital tools and devices, such as interactive catalogues, price-checkers, QR code, AR, and VR to enrich their shopping experience. The technology acceptance model consists of two main dimensions: ease of use and usefulness (Davis et al., 1989). This study will apply the model to deeply explore if the difference between maximisers and satisficers during omnichannel shopping will be influenced by their perception of ease of use and usefulness of the omnichannel. Therefore, this study will explore the differential effects of consumers' decision-making style (maximisers vs satisficers) on omnichannel attitude, continue to use omnichannel retailing and satisfaction with the omnichannel shopping experience. The following questions are addressed in line with this aim:

RQ1: How does consumers' decision-making style affect attitudes towards and usage of omnichannel retailing?

RQ2: How does consumers' decision-making style impact the consumer's satisfaction with the omnichannel shopping experience?

RQ3: What are the driving factors behind these effects on the omnichannel shopping environment?

## CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

### Consumers' decision-making style within omnichannel retailing

This study will apply the bounded rationality theory of decision-making styles based on maximisers and satisficers to understand individual differences when shopping within an omnichannel approach, as presented in Figure 1.

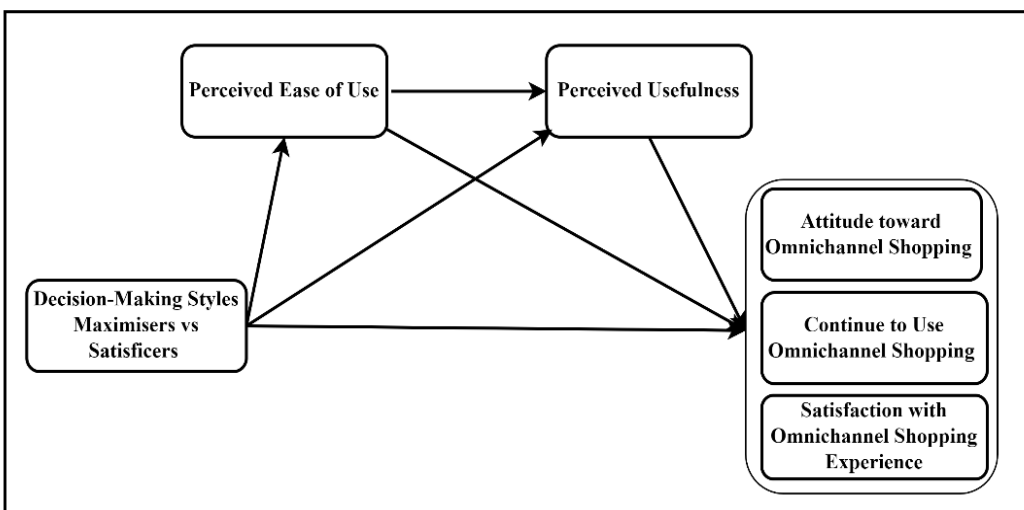


Figure 1. The Conceptual Framework of this Study.

Maximising and satisficing decision-making styles have different effects on their decision processes and satisfaction outcomes (Iyengar et al., 2006; Khare et al., 2021). Maximisers tend to find the best possible outcome by extensively searching for information on all possibilities before deciding. They compare and evaluate all alternatives available, which results in spending more time and effort on making their decision (Misuraca & Fasolo, 2018). During the search process, maximisers employ more counterfactual reasoning to their decision, with a tendency to go back and forth between the alternatives available (Karimi et al., 2015). Moreover, they tend to involve high cognitive effort, associated with the high-level processing of information while making a choice (Misuraca & Teuscher, 2013). On the other hand, satisficers demonstrate a different behaviour pattern compared to maximisers. They tend to search for a 'good-enough' or

satisfactory option by investigating limited numbers of options and spending less time and effort on decision-making.

Nevertheless, maximisers are expected to have a positive attitude towards omnichannel purchases. Maximisers not only seek more information before making a decision (Schwartz et al., 2002), but they also conduct more active information searches after making a decision, such as friends and family, to support their decision, and read customer reviews as part of the post-choice process (Iyengar et al., 2006; Kim, 2022). Consequently, as a process, omnichannel retail shopping is more appealing for maximisers' decision-making than satisficers. This is because shopping in an omnichannel environment provides shoppers with the opportunities to browse and integrate all available different channels and touchpoints (Mishra et al., 2021), including social media platforms and customer reviews, which could be a positive predictor in motivating maximisers compared to satisficers to exert higher attitude toward omnichannel shopping. Thus, it is hypothesised that:

**H1a.** Maximisers (as opposed to satisficers) will have a more positive attitude toward omnichannel shopping.

In an omnichannel context, we also argue that maximisers, in contrast to satisficers, would have a stronger intention to continue to use omnichannel shopping. This is because omnichannel shopping model offers a wide range of channels and touchpoints that used simultaneously which will reinforce maximisers decision-making in their search for the optimal choice. In an omnichannel shopping context (Juaneda-Ayensa et al., 2016), showed that effort expectancy strongly influence consumers' shopping usage intention. Effort expectancy is the degree of ease associated with using different touchpoints during the shopping journey (Juaneda-Ayensa et al., 2016). Thus, within the omnichannel shopping environment, it is anticipated that, as opposed to with satisficers, maximisers will indicate a higher omnichannel usage intention as they are associated with the willingness to spend more time and effort on making a decision. Thus, it is hypothesised that:

**H1b.** Maximisers (as opposed to satisficers) will be more willing to continue to use omnichannel retailing.

Furthermore, compared to satisficers, maximisers are expected to be show more satisfaction with the omnichannel shopping journey than satisficers. Individuals with a maximising tendency enjoy searching and comparing alternatives (Lai, 2010), which leads to spending more time on making decisions or underestimating time (*'time flies'*) (Misuraca & Teuscher, 2013). Therefore, shopping in an immersive and highly integrated environment will positively affect maximisers' satisfaction experience with the omnichannel shopping. Thus, it is hypothesised that:

**H1c.** Maximisers (as opposed to satisficers) will be more satisfied with the omnichannel shopping experience.

Due to the introduction of the new technology and customer touchpoints between customers and retailers, a consumer's shopping journeys within an omnichannel environment is considered to be more complex and dynamic, involving more reflective cognitive aspects (Lemon & Verhoef, 2016) than more straightforward shopping approaches. For example, a customer can compare prices, read customer reviews, or make a purchase using a desktop, mobile device, by phone, or at a physical store during a single seamless purchase experience. Therefore, maximisers have reported higher confidence in their own abilities to perform a given task than satisficers (Lai, 2010). When looking at the omnichannel approach to shopping, we expected that the more technological elements it involves, the more differences would be revealed in this environment between maximisers and satisficers. Moreover, maximisers are expected to have a better perspective on the ease of use and usefulness of omnichannel shopping.

### **The role of the technology acceptance model**

According to the technology acceptance model (TAM), the adoption behaviour is determined by the intention to use a particular technology, which is, in turn, determined by the perceived usefulness and ease of use of that technology (Davis et al., 1989). It is hypothesised that the two constructs of the TAM affect each other, as the easier to use a process is, the more useful it will be (Davis et al., 1989). Perceived ease of use has been defined as 'the degree to which a person believes that using a particular system would be free of effort'. On the other hand, perceived usefulness refers to 'the extent to which a person believes that using a particular technology will enhance their job performance' (Davis, 1989, p. 320).

Previous studies found that perceived ease of use requires practical experiences and usage skills (Davis, 1989) and is associated with individuals' practical knowledge. More specifically, in the context of omnichannel, studies have revealed that perceived ease of use and perceived usefulness have different influences on the consumer's shopping intention (Berg & Tornblad, 2017; Juaneda-Ayensa et al., 2016). Even though perceived ease of use is found to be a significant influencer on purchase intention (Juaneda-Ayensa et al., 2016; Venkatesh & Bala, 2008), (Berg & Tornblad, 2017) find different results with no impact omnichannel. They found the contrasting result could be due to the anticipated effort required to use different channels during the shopping journey. Indeed, in our study, we anticipated that perceived ease of use would positively influence maximisers decision-making because they are prone to invest higher effort and time into attaining their goal.

Nevertheless, perceived usefulness was found to significantly influence omnichannel purchase intentions (Berg & Tornblad, 2017; Juaneda-Ayensa et al., 2016). Perceived omnichannel usefulness was explained by the ease of use (Silva et al., 2018). In other words, the usefulness of the omnichannel approach is related to convenience—the possibility of accessing and buying anything, anywhere, anytime (Verhoef et al., 2015). Thus, maximisers and satisficers shopping behaviour within the omnichannel environment is expected to be influenced by perceived ease of use and perceived usefulness. Specifically, maximisers are anticipated to exert higher perceived ease of use, which will affect their perception of the usefulness, which will affect

Proceedings of the Association of Collegiate Marketing Educators (2023)  
the attitude purchase, usage intention, and satisfaction with the omnichannel shopping experience.  
Thus, it is hypothesised that:

**H2a-c:** Perceived ease of use will mediate the effect of decision-making styles on a) the attitude towards an omnichannel purchase, b) the intention to use omnichannel, and c) satisfaction with the omnichannel shopping experience.

**H3a-c:** Perceived usefulness will mediate the effect of decision-making styles on the a) attitude towards an omnichannel purchase, b) intention to use omnichannel, and c) satisfaction with the omnichannel shopping experience.

**H4a-c:** Perceived ease of use and perceived usefulness will jointly mediate the effect of decision-making styles on the a) attitude towards an omnichannel purchase, b) intention to use omnichannel, and c) satisfaction with the omnichannel shopping experience.

## METHODOLOGY

### The pre-test

A pre-test was conducted to verify the effectiveness of the independent variable on the main dependent variables. A total of 40 participants (24 female, 16 male,  $M_{age} = 31.87$ ,  $SD_{age} = 6.82$ ) who were not involved in the main study recruited from Qualtrics. First, the omnichannel term had been defined and the nature of the study had been explained. Then they were asked two screening questions: whether they have done a recent and non-routine shopping activity using omnichannel retailing; and how many number of channels they used for their recent shopping journey. Participants who shopped through omnichannel store using two or more channels were included in the study. After that participant were asked to answer the questionnaire based on retrieving their current purchasing shopping journey with omnichannel shopping store.

The 9-items of Maximising Tendency Scale (MTS), which used to classify maximisers and satisficers, was comprised to one factor using factor analysis, and the median centred ( $median = 5.38$ ). Participants who scored above the median regraded as maximisers and those who scored below the median were satisficers (maximisers = 20, satisficers = 20). One-Way ANOVA test was conducted to test the effect of consumer decision-making styles on attitude toward omnichannel shopping, intention to continue to use omnichannel and satisfaction with the omnichannel shopping experience. The results confirmed the different effects of decision-making styles on omnichannel shopping, as presented in Table 1, therefore, no modifications were needed.

Table 1. Pertest results.

Measures	Mean Maximisers SD Maximisers	Mean Satisficers SD Satisficers	P value
Attitude toward omnichannel shopping	5.67	4.63	.003

	0.67	1.27	
Continue to use omnichannel shopping	5.70 0.76	4.88 1.33	.022
Satisfaction with the omnichannel shopping experience	5.74 0.81	4.59 1.10	.001

The main study

Two hundred and seventy-one participants completed Study 2 (33% females,  $M_{age} = 33.98$ ,  $SD_{age} = 7.09$ ) were recruited from Qualtrics. Similar procedure used in the pilot study was applied in the main study in terms of providing the background and the two screening questions. After filtering the two inclusion criteria, there were 227 valid participants (28.9% females,  $M_{age} = 34.33$ ,  $SD_{age} = 7.12$ ). Participants read the questionnaire which was built to reflect on their past omnichannel experiences, followed by demographic information. In addition, they were asked to answer the 9-item Maximising Tendency Scale (MTS) (Diab et al., 2008), which is used to classify maximisers and satisficers. To classify participants to each group (maximisers and satisficers), a single composite MTS score was used, and the median score was 5.44. There is substantial theoretical and empirical support in the previous literature for the actual split between maximisers and satisficers on the maximisation tendency Scale. Particularly, the (Schwartz et al., 2002) who established the decision-making style as a trait, clearly classifying individuals into maximisers and satisficers operationalised by using a median split. Existence research has consistently followed Schwartz’s approach (Iyengar et al., 2006; Karimi, 2013; Karimi et al., 2018). For further verification, a two-step cluster analysis using the 9-items MTS (BIC clustering criterion: IBM SPSS 27) produced two clusters that accurately reproduced the median split classification. Thus, this classification approach is consistent with the prior research that has used a decision-making style scale (Iyengar et al., 2006; Karimi et al., 2018; Schwartz et al., 2002). Therefore, in this study, there were 124 participants scored above the median (maximisers), and 103 who scored below the median (satisficers).

Measures

All measures used were adapted from prior studies. Three items used to measure attitude toward omnichannel shopping (Bezes, 2016). Omnichannel usage intention was measured using three items (Gao et al., 2021). Three items were used to measure satisfaction with the omnichannel shopping experience (Murfield et al., 2017). Finally, perceived ease of use was measured using four items and perceived usefulness were measured using three items (Davis et al., 1989). Participants responded to all measures using a seven-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. The reliability coefficients of the used measures were satisfactory. The Cronbach’s alpha values for all scales were above .70, which means these scores meet the criteria (Hair et al., 2011), as presented in Table 2.

Table 2. Reliabilities and correlations.

	AVE	CR	Cronbach Alpha	AOS	COS	SAT	PEOU	PU
AOS	0.725	0.887	0.810	<b>0.851</b>				
COS	0.698	0.874	0.782	0.764	<b>0.835</b>			

Proceedings of the Association of Collegiate Marketing Educators (2023)

SAT	0.711	0.881	0.797	0.712	0.673	<b>0.843</b>		
PEOU	0.661	0.886	0.892	0.666	0.671	0.633	<b>0.813</b>	
PU	0.721	0.886	0.805	0.694	0.634	0.712	0.758	<b>0.849</b>

Notes: AVE = average variance extracted; CR = composite reliability; AOS = Attitude toward Omnichannel Shopping; COS = Continue to Use Omnichannel; SAT = satisfaction with omnichannel shopping experience; PEOU Perceived Ease of Use, PU = Perceived Usefulness. Boldfaced diagonal elements are the square roots of AVEs.

Results

To test the direct effect of consumers decision-making style on the attitude towards omnichannel purchase, intention to use omnichannel retailing and satisfaction with the shopping experience, ANOVA test was performed. As expected, compared to satisficers, exerted more positive attitude to purchase within omnichannel ( $M_{\text{maximisers}} = 5.80, SD = 0.76$ , vs.  $M_{\text{satisficers}} = 4.77, SD = 1.60, F(1, 225) = 63.920, p < 0.001$ ), intention to continue to use omnichannel shopping ( $M_{\text{Maximisers}} = 5.81, SD = 0.84$ , vs.  $M_{\text{Satisficers}} = 4.80, SD = 1.16, F(1, 225) = 56.273, p < .001$ ), and satisfaction with the omnichannel shopping experience ( $M_{\text{Maximisers}} = 5.74, SD = 0.80$ , vs.  $M_{\text{Satisficers}} = 4.59, SD = 1.10, F(1, 225) = 81.679, p < .001$ ). Thus, H1a-c were confirmed.

The mediation model with multiple mediators operating in serial implemented in the SPSS macro PROCESS (model 6) allowed the current model to be assessed (Hayes, 2017). To derive the direct and indirect effects, the model estimated all path coefficients simultaneously. Moreover, bootstrapping the method generated an estimate of the indirect effect, including a 95% confidence interval. The conceptual model, which will be tested using Model 6, proposes that the indirect effect of the independent variable (consumers decision-making styles) on the dependent variable (i.e., attitude towards omnichannel purchase, continue to use omnichannel retailing, and satisfaction with omnichannel shopping experience) is mediated by the proposed sequential mediators (perceived ease of use and perceived usefulness). Therefore, the dependent variable will be tested one at the time.

With reference to the direct associations, consumers’ decision-making styles showed a positive relationship with perceived ease of use ( $B = 0.72, SE = 0.05, p < 0.001, 95\% CI [0.62; 0.82]$ ) and perceived usefulness ( $B = 0.24, SE = 0.06, p < 0.001, 95\% CI [0.12; 0.36]$ ). Moreover, in the current sample decision-making styles (maximisers as opposed to satisficers) had a positive association with; attitude towards omnichannel purchase ( $B = 0.09, SE = 0.07, p = 0.19, 95\% CI [-0.05; 0.24]$ ), omnichannel usage intention ( $B = 0.095, SE = 0.07, p = 0.20, 95\% CI [-0.05; 0.25]$ ), and satisfaction with omnichannel shopping experience ( $B = 0.095, SE = 0.07, p = 0.19, 95\% CI [-0.05; 0.24]$ ). Table 2 displays the estimates of all the path coefficients, as well as the 95% bias-corrected bootstrapped confidence intervals (CI) related to the indirect relationships included in the hypothesised model.

The results obtained for indirect relationships indicated that both perceived ease of use and perceived usefulness mediated the relationship between decision-making styles and attitude toward the omnichannel purchase, omnichannel usage intention and satisfaction with the omnichannel shopping experience (see Figures 2–4).



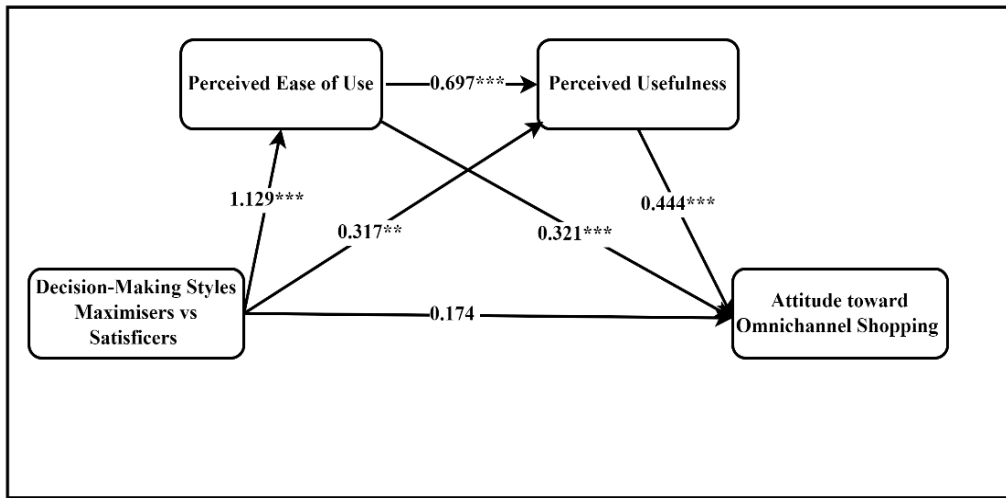


Figure 2. Serial mediation analysis results for attitude towards omnichannel purchase (including regression coefficients and p-values).

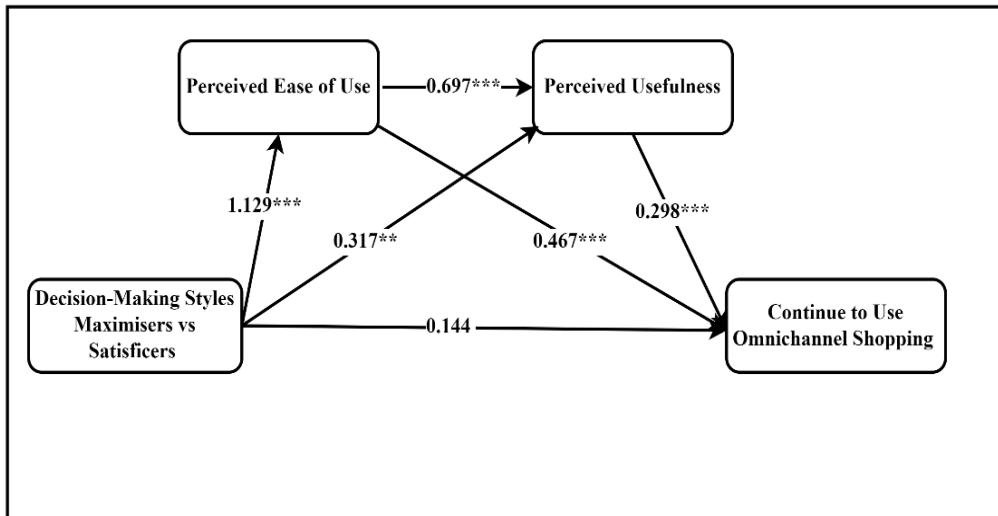


Figure 3. Serial mediation analysis results for omnichannel usage intention (including regression coefficients and p-values).

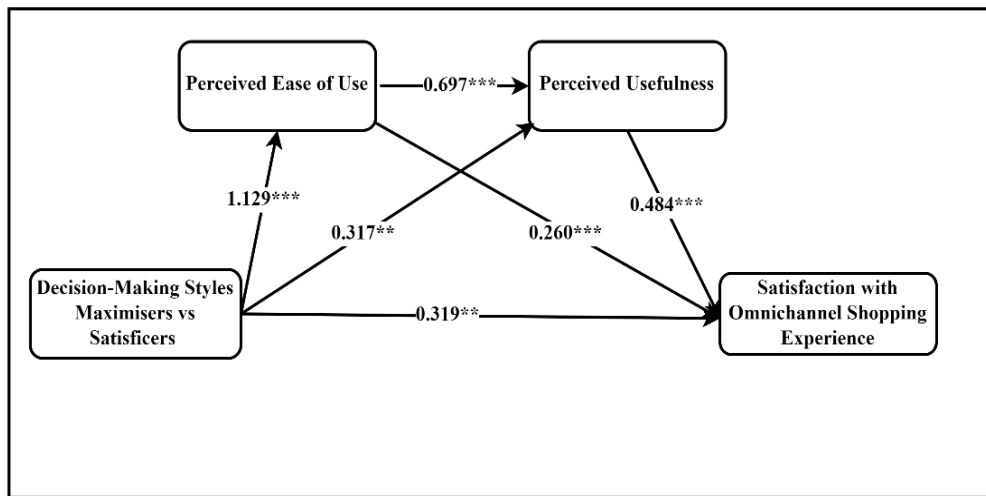


Figure 4. Serial mediation analysis results for satisfaction with the omnichannel experience (including regression coefficients and p-values).

The overall model tested on the current sample included decision-making styles (IV), perceived ease of use (first mediator), perceived usefulness (second mediator), and attitude towards omnichannel purchase (DV). The analysis was repeated with the omnichannel usage intention (DV) and satisfaction with the omnichannel shopping experience (DV).

Results indicated that perceived ease of use and usefulness sequentially mediate the relationship between consumers’ decision-making style and all independent variables; attitude toward omnichannel purchase, continue to use omnichannel and satisfaction with the omnichannel shopping experience. More specifically, consumers’ decision-making style was associated with a higher perception of ease of use and the usefulness of omnichannel shopping, which in turn resulted in more positive attitude toward omnichannel purchase, a higher intention to continue to use omnichannel retailing and more satisfaction with the omnichannel experience. Therefore, the mediation results confirmed H2a-c, H3a-c, and 4a–c, as presented in Table 3.

Table 3. Path coefficients and the indirect effects for mediation models.

Path coefficients										
	PEOU		PU		AOC		OCU		SAT	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
CDMS	1.129***	(0.112)	0.317**	(0.108)	0.174	(0.316)	0.144	(0.131)	0.319**	(0.122)
PEOU	—	—	0.697***	(0.053)	0.321***	(0.079)	0.467***	(0.084)	0.260**	(0.078)
PU					0.444***	(0.075)	0.298**	(0.079)	0.484***	(0.074)
					<i>b</i>	<i>SE</i>	95% CI			
AOC	Total				0.853	(0.116)	0.635, 1.090			
	CDMS → PEOU → AOC				0.363	(0.117)	0.179, 0.638			
	DMS → PU → AOC				0.141	(0.053)	0.019, 0.299			
	DMS → PEOU → PU → AOC				0.349	(0.079)	0.196, 0.502			
OCU	Total				0.856	(0.119)	0.626, 1.089			
	CDMS → PEOU → OCU				0.527	(0.115)	0.313, 0.776			

Proceedings of the Association of Collegiate Marketing Educators (2023)

	CDMS → PU → OCU	0.094	(0.050)	0.011, 0.206
	CDMS → PEOU → PU → OCU	0.234	(0.077)	0.087, 0.397
SAT	Total	0.829	(0.116)	0.608, 1.069
	CDMS → PEOU → SAT	0.294	(0.138)	0.084, 0.621
	CDMS → PU → SAT	0.154	(0.078)	0.018, 0.319
	CDMS → PEOU → PU → SAT	0.281	(0.084)	0.207, 0.534

N = 227. \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001; 95% CI = 95% confidence interval using the bootstrap bias-corrected method using 5000 samples. DMS, decision-making styles; PEOU, perceive ease of use; PU, perceive usefulness; AOC, attitude towards omnichannel purchase; OCU, omnichannel usage intention; SAT, satisfaction with omnichannel shopping experience. Standard error in brackets.

DISCUSSION AND CONCLUSION

In this study, the effect of consumers’ decision-making styles was examined in the omnichannel shopping context. The results demonstrated that consumers’ decision-making styles have different effect on the way they use omnichannel shopping. In contrast to satisficers, maximisers demonstrated a more positive attitude, a higher intention to continue to use omnichannel retailing and more satisfaction with the shopping experience. The relationship was mediated by their perception of ease of use and usefulness of the omnichannel environment.

This study will significantly contribute to the current literature on the omnichannel shopping as well as individual differences. Marketers and retail managers need to pay attention to the differential roles in terms of behaviour and satisfaction outcome between maximisers and satisficers consumers. Maximisers are those who prone to engage in an omnichannel shopping environment due to their own capability of using and integrating the associated technology to perform their tasks. However, satisficers are less likely to engage with omnichannel retailing, and this was explained by their limited perception of the ease of use and usefulness. Hoogveld and Koster (2016); Shi et al. (2020) claim that more than 40% of omni-shoppers are not served effectively because companies are struggling to target customers’ needs through their existing channel. Consequently, targeting and promoting both groups (maximisers and satisficers) by providing, for example, customised promotion strategies and utilising user-friendly technology would result in enhancing customer shopping experience.

REFERENCES

- Accenture. (2017). *Creating continuous customer experience: The secret to getting omnichannel right*. Retrieved 27 Oct from
- Beck, N., & Rygl, D. (2015). Categorization of multiple channel retailing in Multi-, Cross-, and Omni-Channel Retailing for retailers and retailing. *Journal of Retailing and Consumer Services*, 27, 170-178.
- Berg, U., & Tornblad, J. (2017). Decorating omnichannels: Shedding light on the consumer perspective on omnichannel behavior. In.
- Bezes, C. (2016). Comparing online and in-store risks in multichannel shopping. *International Journal of Retail & Distribution Management*.
- Cheek, N. N., & Schwartz, B. (2016). On the meaning and measurement of maximization. *Judgment and Decision making*, 11(2), 126-146.
- Chen, Y., Cheung, C. M. K., & Tan, C.-W. (2018). Omnichannel business research: Opportunities and challenges. *Decision Support Systems*, 109, 1-4.  
<https://doi.org/https://doi.org/10.1016/j.dss.2018.03.007>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science*, 35(8), 982-1003.
- Dethlefs, C., Ostermeier, M., & Hübner, A. (2022). Rapid fulfillment of online orders in omnichannel grocery retailing. *EURO Journal on Transportation and Logistics*, 100082.
- Diab, D., Gillespie, M., & Highhouse, S. (2008). Are maximizers really unhappy? The measurement of maximizing tendency. *Judgment and Decision Making Journal*, 3(5), 364.
- Gao, W., Fan, H., Li, W., & Wang, H. (2021). Crafting the customer experience in omnichannel contexts: The role of channel integration. *Journal of Business Research*, 126, 12-22.
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.
- Hoogveld, M., & Koster, J. M. (2016). Implementing omnichannel strategies the success factor of agile processes. *Advances in Management and Applied Economics*, 6(2), 25.
- Hossain, T. M. T., Akter, S., Kattiyapornpong, U., & Dwivedi, Y. (2020). Reconceptualizing Integration Quality Dynamics for Omnichannel Marketing. *Industrial Marketing Management*, 87, 225-241. <https://doi.org/10.1016/j.indmarman.2019.12.006>
- Iyengar, S. S., Wells, R. E., & Schwartz, B. (2006). Doing better but feeling worse: Looking for the “best” job undermines satisfaction. *Psychological Science*, 17(2), 143-150.
- Juaneda-Ayensa, E., Mosquera, A., & Sierra Murillo, Y. (2016). Omnichannel customer behavior: key drivers of technology acceptance and use and their effects on purchase intention. *Frontiers in psychology*, 7, 1117.
- Karimi, S. (2013). A purchase decision-making process model of online consumers and its influential factors a cross sector analysis.
- Karimi, S., Holland, C. P., & Papamichail, K. N. (2018). The impact of consumer archetypes on online purchase decision-making processes and outcomes: A behavioural process perspective. *Journal of Business Research*, 91, 71-82.  
<https://doi.org/10.1016/j.jbusres.2018.05.038>
- Karimi, S., Papamichail, K. N., & Holland, C. P. (2015). The effect of prior knowledge and decision-making style on the online purchase decision-making process: A typology of consumer shopping behaviour. *Decision Support Systems*, 77, 137-147.
- Kazancoglu, I., & Aydin, H. (2018). An investigation of consumers' purchase intentions towards omni-channel shopping: A qualitative exploratory study. *International Journal of Retail & Distribution Management*.

- Proceedings of the Association of Collegiate Marketing Educators (2023)
- Khare, A., Chowdhury, T. G., & Morgan, J. (2021). Maximizers and Satisficers: Can't choose and Can't reject. *Journal of Business Research*, 135, 731-748.
- Kim, K. (2022). Who reads customer reviews after product choice? Maximizing, satisficing, and postchoice information search. *Personality and Individual Differences*, 184, 111192.
- Lai, L. (2010). Maximizing without difficulty: A modified maximizing scale and its correlates. *Judgment and Decision making*, 5(3), 164.
- Lazaris, C., & Vrechopoulos, A. (2014). From multi-channel to “omnichannel” retailing: review of the literature and calls for research. 2nd International Conference on Contemporary Marketing Issues,(ICCM),
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of marketing*, 80(6), 69-96.
- Lynch, S., & Barnes, L. (2020). Omnichannel fashion retailing: examining the customer decision-making journey. *Journal of Fashion Marketing and Management: An International Journal*.
- Mishra, R., Singh, R. K., & Koles, B. (2021). Consumer decision-making in Omnichannel retailing: Literature review and future research agenda. *International Journal of Consumer Studies*, 45(2), 147-174.
- Misuraca, R., & Fasolo, B. (2018). Maximizing versus satisficing in the digital age: disjoint scales and the case for “construct consensus”. *Personality and Individual Differences*, 121, 152-160.
- Misuraca, R., & Teuscher, U. (2013). Time flies when you maximize—Maximizers and satisficers perceive time differently when making decisions. *Acta psychologica*, 143(2), 176-180.
- Mosquera, A., Pascual, C. O., & Ayensa, E. J. (2017). Understanding the customer experience in the age of omni-channel shopping. *Icono14*, 15(2), 5.
- Murfield, M., Boone, C. A., Rutner, P., & Thomas, R. (2017). Investigating logistics service quality in omni-channel retailing [Article]. *International Journal of Physical Distribution & Logistics Management*, 47(4), 263-296. <https://doi.org/10.1108/IJPDLM-06-2016-0161>
- Payne, E. M., Peltier, J. W., & Barger, V. A. (2017). Omni-channel marketing, integrated marketing communications and consumer engagement: A research agenda. *Journal of Research in Interactive Marketing*.
- Research, F. (2014). Customer desires vs. retailer capabilities: Minding the omni-channel commerce gap.
- Rigby, D. (2011). The Future of Shopping [Article]. *Harvard business review*, 89(12), 64-75.
- Rodríguez-Torrico, P., San-Martín, S., & Rebeca San José, C. (2020). The role of omnichannel tendency in digital information processing. *Online Information Review*, 44(7), 1347-1367. <https://doi.org/http://dx.doi.org/10.1108/OIR-08-2019-0272>
- Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. R. (2002). Maximizing versus satisficing: Happiness is a matter of choice. *Journal of personality and social psychology*, 83(5), 1178.
- Shen, X.-L., Li, Y.-J., Sun, Y., & Wang, N. (2018). Channel integration quality, perceived fluency and omnichannel service usage: The moderating roles of internal and external usage experience. *Decision Support Systems*, 109, 61-73.
- Shi, S., Wang, Y., Chen, X., & Zhang, Q. (2020). Conceptualization of omnichannel customer experience and its impact on shopping intention: A mixed-method approach. *International Journal of Information Management*, 50, 325-336.
- Silva, S. C. E., Martins, C. C., & Sousa, J. M. (2018). Omnichannel approach: Factors affecting consumer acceptance. *Journal of Marketing Channels*, 25(1-2), 73-84. <https://doi.org/10.1080/1046669x.2019.1647910>

Proceedings of the Association of Collegiate Marketing Educators (2023)

- Sopadjieva, E., Dholakia, U. M., & Benjamin, B. (2017). A Study of 46,000 Shoppers Shows That Omnichannel Retailing Works [Article]. *Harvard Business Review Digital Articles*, 2-4.
- Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision sciences*, 39(2), 273-315.
- Verhoef, P., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omnichannel retailing: introduction to the special issue on multi-channel retailing. *Journal of retailing*, 91(2), 174-181.

**THE EFFECT OF PERCEIVED INTELLECTUAL CAPITAL ON  
VALUE CO-CREATION IN THE METAVERSE**

**Soo-kyoung Ahn, Chonnam National University, Korea**

**Sua Jeon, Texas Wesleyan University, U.S.A**

**Eun-jeong Ryou, Changwon National University, Korea**

---

The need for contact-free interaction due to the pandemic has led to the public's increasing interest in the virtual world and the explosive growth of the metaverse. The metaverse market size is projected to reach USD 824.53 Billion by 2030 from USD 27.21 Billion in 2020 (Cision, 2022). Many brands have been embracing the metaverse as a new retail environment. For example, Gucci, a leading fashion brand, launched a virtual Gucci Garden on the metaverse platforms such as Roblox and Zepeto, where users can experience the brand's ideas and iconic items by wandering through the different spaces or buying virtual collectibles and items. The individual journey is a one-of-a-kind experience co-created with the brand. Given the active role of users in the symbolic creation of new values (Galvagno & Dalli, 2014; Ranjan & Read, 2016), what happens in the metaverse can be considered the outcome of value co-creation between brands and users. Applying Prahalad's (2004) theory of an emerging wave of value co-creation, which detailed five approaches to creating product value and its relationship to customer interactions, this study explores its relevance to the rising sphere of the metaverse. Expressly, these five different aspects of value co-creation are utilized in the context of the metaverse: how users emotionally engage in the brand's metaverse with their avatars (engagement), decide what to do on their own (self-service), participate in the virtual events or activities that the brand constructs (experience), navigate their way through the metaverse and interact with other users or the brand (problem-solving), and create new looks for their avatars with the virtual fashion items sold by the brand (co-designing). This study focuses on the concept of intellectual capital (IC) as a factor affecting customer value co-creation. Firms' capabilities such as service quality (Toqeer, Farooq, & Abbas, 2021), innovation (Ngo, Kohda, & Huynh, 2021), and marketing and networking capability (Zhang, Jiang, Shabbir, & Du, 2015) have been recognized to be influential to the value co-creation. Also, consumer perception of the brand's ability is related to value co-creation (Kennedy & Guzmán, 2017). As a result, from the consumer perspective, IC can be a critical determinant in value co-creation in the metaverse. IC refers to the set of skills and experiences of the employees of an organization (Alvino, Di Vaio, Hassan, & Palladino, 2020) and consists of three dimensions: human, structural, and relational capital. Considering that the metaverse environment is implemented with advanced technologies, this study adds technological elements to IC. This study aims to understand how consumers' perception of a brand's IC influences their intention to co-create value in the metaverse. Thus, it identifies the underlying dimensions of perceived IC and examines its impact on customer participation and citizenship behavior intentions.

Data were collected from two online surveys targeting adult consumers in their twenties who knew about the metaverse in Korea. A total of 831 data were analyzed by conducting exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and structural equation modeling (SEM).

## Proceedings of the Association of Collegiate Marketing Educators (2023)

The study identified six dimensions of the perceived intellectual capital of fashion brands that have a presence in the metaverse: employee competence, employee satisfaction, company culture, technology, relationship, and customer loyalty capital. Five out of six dimensions of IC significantly influenced the intention to co-create value in the metaverse. In detail, employee competence, technology, relationship, and customer loyalty impacted customer participation. Five dimensions of IC, except employee satisfaction, impacted citizenship behavior.

This study critically explores the early application of metaverse in the retail environment and contributes to enhancing understanding of the perceived IC facilitating value co-creation. Specifically, this study defines the experiences and values created in the metaverse as the outgrowth of co-creation between firms and consumers. This study also identifies multi-dimensions that construct IC from the customer perspective, while most expanding literature on IC has been conducted with the financial view in the accounting field. Furthermore, this study elucidates that perceived IC significantly impacts value co-creation concerning retail firms in the context of the metaverse.

## References

- Alvino, F., Di Vaio, A., Hassan, R., & Palladino, R. (2020). Intellectual capital and sustainable development: A systematic literature review. *Journal of Intellectual Capital*, 22(1), 76-94.
- Cision (July 13, 2022). Metaverse Market size worth \$ 824.53 Billion, Globally, by 2030 at 39.1% CAGR. Accessed September 23, 2022 from <https://www.prnewswire.com/news-releases/metaverse-market-size-worth--824-53-billion-globally-by-2030-at-39-1-cagr-verified-market-research-301585725.html>
- Galvagno, M., & Dalli, D. (2014). Theory of value co-creation: a systematic literature review. *Managing Service Quality*, 24(6), 643-683.
- Kennedy, E., & Guzmán, F. (2017). When perceived ability to influence plays a role: brand co-creation in Web 2.0. *Journal of Product & Brand Management*, 26(4), 342-350.
- Ngo, N. D. K., Kohda, Y., & Huynh, V. N. (2021). Analyzing the Relationship between service innovation and customer value co-creation intention: The case of mobile banking. In *International Conference on Applied Human Factors and Ergonomics* (pp. 456-466). Springer, Cham.
- Prahalad, C. K. (2004). The co-creation of value-invited commentaries on "Evolving to a new dominant logic for marketing". *Journal of Marketing*, 68(1), 23.
- Ranjan, K. R., & Read, S. (2016). Value co-creation: concept and measurement. *Journal of the Academy of Marketing Science*, 44(3), 290-315.
- Zhang, J., Jiang, Y., Shabbir, R., & Du, M. (2015). Building industrial brand equity by leveraging firm capabilities and co-creating value with customers. *Industrial Marketing Management*, 51, 47-58.



**TURNOVER INTENTIONS OF POLICE OFFICERS:  
INFLUENCE OF BURNOUT, SUPERVISOR SUPPORT, AND JOB  
SATISFACTION**

**Kim Hester, Arkansas State University – Jonesboro  
Sarath Nonis, Arkansas State University – Jonesboro  
Karen McDaniel – Jonesboro**

**EXTENDED ABSTRACT**

Public service employees are often those in front-line positions, and face stress due to their boundary spanning job requirements. For police officers, stress may lead to psychological effects such as burnout, lower levels of job satisfaction, and higher levels of turnover intentions. This is becoming increasingly important for many cities and their police department budgets, as increasing labor costs for recruitment and selection after turnover has become a major concern. This study seeks to better understand how employee burnout, perceptions of supervisor support, and job satisfaction influence turnover intentions for police officers, especially during the Covid 19 pandemic time period.

The data was collected using Qualtrics by surveying police officers in a medium-size city in the mid-south part of the U.S. Among other variables, the survey measured perceptions of supervisor support, job satisfaction, burnout, and turnover intentions using the the Lambert, Hogan, and Barton (2001), Hackman & Oldham (1975), Maslach (1998), and Hom & Griffeth (1991) scales. Response rate was 78.9%.

The table below show some of the summary findings as they relate to supervisor support, job satisfaction, three dimensions of burnout as well as the interactions between supervisor support and burnout for those with low turnover intentions compared to those with high turnover intentions.

**Mean Scores of Predictors of Turnover Intentions**

Predictors	Turnover Intentions		F-ratio	p-value
	Low	High		
Supervisor support (SS)	4.40	3.77	20.86	0.00 <sup>1</sup>
Job satisfaction (JS)	3.69	2.68	77.41	0.00 <sup>1</sup>
Burnout – emotional exhaustion (BEE)	2.17	3.08	42.21	0.00 <sup>1</sup>
Burnout – personal accomplishment (BPA)	3.85	3.71	2.66	0.11
Burnout – depersonalization (BD)	2.99	3.27	3.64	0.06
SS * BEE	9.46	11.49	9.44	0.00 <sup>1</sup>
SS * BPA	17.01	14.01	20.96	0.00 <sup>1</sup>
SS * BD	13.02	12.67	1.27	0.26

<sup>1</sup> significant at 0.05 level

Findings from this study show the importance of supervisor support in reducing turnover intentions. While supervisor support dampens turnover intentions in the presence of emotional exhaustion, it enhances the positive impact of personal accomplishment dimension of burnout in reducing turnover intentions (note this interaction is significant). These results show the need for supervisors to find creative ways of reducing the impact of burnout among police officers to lessen their turnover intentions at a time where shortage of new police applicants in some areas (Kaste and Mack, 2018), coupled with an "exodus" of officers in other areas (Joyce, 2018; Raguso, 2018) have become a significant problem in many parts of the US. Nationally, police turnover is at 11%, with higher turnover in agencies that are smaller, located in the southern parts of the US, and in more rural areas and municipalities (Wareham et al., 2015). Accordingly, reducing turnover has become a major priority for police and law enforcement agencies around the country.

## REFERENCES

- Hackman, J.R. and Oldham, G.R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60, 159-170.
- Hom, P.W. and Griffeth, R.W. (1991). Structural Equations Modeling Test of a Turnover Theory Cross Sectional and Longitudinal Analyses. *Journal of Applied Psychology*, 76, 350-366.
- Joyce, K. (2018). Seattle Cops Flee the Force in 'Mass Exodus' Due to Frustration with City Politics. *Fox News* 29 June 2018. <https://www.foxnews.com/us/seattle-cops-flee-the-force-in-mass-exodus-due-to-frustrations-with-city-politics-report-says>
- Kaste M, Mack L (2018) American's Growing Cop Shortage. *MPR News*, 12 December. <https://www.mprnews.org/story/2018/12/12/npr-americas-growing-cop-Shortage>
- Lambert, E.G., Hogan, N.L., & Barton, S.M. (2001). The impact of job satisfaction on turnover intent: A test of a structural measurement model using a national sample of workers. *Social Science Journal*, 38(2), 233-250.
- Maslach (1998). A Multidimensional Theory of Burnout, In C.L. Cooper (ed) *Theories of Organizational Stress* (pp.68-85). Oxford University Press.
- Raguso, E. (2018) As Staffing Crisis Continues for Berkeley Police, Officers Reveal Why. *Berkeleyside*, 20 December. <https://www.berkeleyside.com/2018/12/20/as-staffing-crisis-continues-for-berkeley-police-officers-who-left-reveal-why>
- Wareham, J., Smith, B.W., & Lambert, E.G. (2015). Rates and Patterns of Law Enforcement Turnover: A Research Note. *Criminal Justice Policy Review*, 26(4), 345-370.

## **SPORTS MARKETING AND PROFESSIONAL CAREER**

---

### **FEELING SAFE: COMMUNICATING SECURITY MEASURES FOR SPORT SPECTATORS**

**Alison Fridley, The University of Southern Mississippi**  
**Stacey A. Hall, NCS4, The University of Southern Mississippi**  
**James O. Evans, The University of Southern Mississippi**  
**Chris Croft, The University of Southern Mississippi**  
**Joslyn Zale, The University of Southern Mississippi**

---

Sport consumption has produced multiple revenue generation streams for sport organizations (DeSarbo & Madrigal, 2012), and effective utilization of such strategies has provided the opportunity to increase the commercialization of sport through ticket sales, sponsorships, media rights, and more (Manoli, 2018). However, sporting events would not be profitable without in-person spectators, and industry professionals (managers, marketers, etc.) must understand both the motivators and challenges of spectator attendance (Mogajane et al., 2019).

While large, high-profile events traditionally increase revenue generation, they also invite additional and potentially severe safety and security concerns. For example, Mogajane et al. (2019) denoted safety and security as a global challenge inhibiting motivation for spectator attendance. Facility owners have a duty of responsible care for in-person spectators, including crowd control and injury (Sharp et al., 2021). Further, the potential severity of safety and security issues has ignited conversations about industry standards (Hall, 2006), spectator perceptions (Miller et al., 2008), and curriculum development (Hall et al., 2008).

As the perception of safety and security management strategies can influence consumer behavior in attending sporting events (Peric et al., 2021), marketing tactics designed to inform potential spectators of the security measures are essential. Framed by Ajzen's (2011) theory of planned behavior, this study aimed to investigate spectator awareness and perceptions of safety and security measures, including safety and security communication methods. Two research questions guided the study:

1. Are spectators aware of measures to help reduce and prevent problems?
2. Which safety and security policies do spectators consider most favorable?

The National Center for Spectator Sport Safety and Security (NCS4) gathered data from 609 participants who had attended a live professional or college sporting event in person within the last three years. Participants completed a Qualtrics questionnaire that included questions regarding their perceptions and awareness of safety and security at recent professional or college sporting events. Both research questions were analyzed using descriptive statistics focusing on frequencies, means, and standard deviations where appropriate.

Almost two-thirds of participants (63.9%) indicated awareness of event safety and security measures before their attendance, with 76.8% expressing knowing how to seek emergency help at a sporting event. Participants receive event safety and security information primarily through the website (56.7%), signage inside the venue (41.5%), venue entry point signage (41.4%), and venue announcements (33.3%). Accordingly, participants preferred website (51.1%) safety and security informational communication methods. However, email (43.5%) and tickets (38.3%) were also favorable yet were not highly acknowledged as ways participants received information communication methods.

Participants expressed a preference for security measures to be visible, with most favoring security cameras (M=4.30, SD=.92), screening detection technologies (M=4.23, SD=.80), venue personnel presence (M=4.21, SD=.77), security wands (M=4.21, SD=.81), law enforcement presence (M=4.19, SD=.83), ability to report an incident (M=4.11, SD=.79), and bag searches (M=4.01, SD=1.18). Measures for facial recognition or biometrics (M=3.46, SD=1.18), social media monitoring (M=3.14, SD=1.29), and no-bag policy (M=3.34, SD=1.16) appeared as less favorable, but not dis-favorable.

Based on the results, sport marketing and communication professionals should consider highlighting visible security measures such as security cameras, security wands, screening detections, and the evident and accessible presence of venue personnel and law enforcement. In addition to communicating such measures on the website, specific strategies should be created for email and tickets. Additionally, marketing and communication professionals should work with safety and security experts to incorporate strategies to adequately communicate the process of entering and exiting a facility, the ability and process of reporting an accident, and any additional safety and security measures impacting spectators.

## REFERENCES

- Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health, 26*(9), 1113-1127.
- DeSarbo, W., & Madrigal, R. (2012). Exploring the demand aspects of sports consumption and fan avidity. *Interfaces, 42*(2), 199-212.
- Hall, S. (2006). Effective security management of university sport venues. *The Sport Journal, 9*(4).

Proceedings of the Association of Collegiate Marketing Educators (2023)

Hall, S. Ward, R., Cunningham, T., & Marciani, L. (2008). Developing a new curriculum in sport security management. *Journal of Homeland Security and Emergency Management* 5(1).

Manoli, A. E. (2018). Sport marketing's past, present and future; An introduction to the special issue on contemporary issues in sport management. *Journal of Strategic Marketing*, 26(1), 1-5.

Miller, J., Veltri, F., & Gillentine, A. (2008). Spectator perception of security at the Super Bowl after 9/11: Implications for sport facility managers. *The Smart Journal* 4(2).

Mogajane, Slabbert, E., & Du Plessis, E. (2019). Assessing the importance of spectators to soccer clubs in South Africa : A management perspective. *Acta Commercii*, 19(1), 1–10.

Peric, M., Wise, N., Heydari, R., Keshtidar, M., & Mekinc, J. (2021). Getting back to the event: COVID-19, attendance and perceived importance of protective measures. *Kinesiology*, 51(1), 12-19.

Sharp, L., Moorman, A. M., & Claussen, C. (2021). *Sport law: A managerial approach* (4th ed.). Routledge.

**PSYCHOSOCIAL FACTORS**  
**AFFECTING THE INTENTION TO PLAY ESPORTS**

**Soojung Krystal Park, Marshall University**

**Jennifer Y. Mak, Marshall University**

**Lei Ouyang, Marshall University**

---

**EXTENDED ABSTRACT**

Esports, a form of sport competition using video games, has boomed worldwide over the years under the influence of the development of mobile networks. The negative perspective about esports, furthermore, has gradually been changing in the academic world. Previous studies have shown that psychosocial values of esports such as having fun, escaping from daily life, and social interaction. However, previous studies on motivations for esports gameplay focused on esports viewership, and there has comparatively been little esports gameplay research from a quantitative perspective. Against the qualitative research heavy background, the purpose of this research is to examine the psychosocial factors that influence the intention to play esports from a quantitative perspective. Furthermore, the current study's research questions are 'what psychosocial factors affect the intention to play esports?', and 'how do the three psychosocial factors (e.g., enjoyment, escapism, social interaction) influence the intention to play esports?'

An online survey was distributed to esports players via Amazon Mechanical Turk (M-Turk) to test the hypothesis that psychosocial factors are positively related to the intention to play esports. Specifically, respondents were esports players in the age range of 20 to 69 years old, who live in the United States, and who have played at least one popular multiplayer esports game. Two hundred responses were collected to obtain information from a knowledgeable and accessible source, and a convenient sampling approach was used in selecting subjects. Confirmatory Factor Analysis (CFA) was used to verify how well the measured variables represent the number of constructs (e.g., enjoyment, escapism, social interaction, intention). In addition, testing the relationship between each psychosocial factor of esports and the intention to play esports was conducted via Structural Equation Modeling (SEM).

All items' initial model fit was good except intention. Post hoc analysis, therefore, was utilized based on modification indices. One correlation among observed-variable residuals was added to the model: Intention 1 with Intention 5 ( $r = .48$ ). Consequently, all CFA results showed that the measurement model presented an acceptable fit: SRMR < .06, RMSEA < .08, CFI and IFI > .90. The SEM results indicated adequate fit indices of the model (chi-square [129, N = 200] = 253.03,  $p < .001$ , SRMR = 0.05, RMSEA = 0.07, CFI = 0.88, and IFI = 0.88) with the exception of the CFI and IFI. Post hoc analysis, therefore, was utilized based on modification indices. Due to the high Pearson correlation, two paths among observed-variable residuals were added to the model: Enjoyment 2 with Enjoyment 3 ( $r = .25$ ) and Enjoyment 5 with Escapism 4 ( $r = .35$ ). As a result, the adjustment improved the CFI and IFI (chi-square [127, N = 200] = 221.91,  $p < .001$ , SRMR = 0.05, RMSEA = 0.06, CFI = 0.91, and IFI = 0.91).

Hypothesis 1 predicted that enjoyment would be positively related to the intention to play esports. Looking at the structural relationships, enjoyment had a significant direct impact on the intention to play esports ( $\beta = .81$ ,  $p < 0.001$ ). Hypothesis 2 predicted that escapism would be positively related to the intention to play esports. Looking at the structural relationships, escapism had a significant direct impact on the intention to play esports ( $\beta = .47$ ,  $p < 0.05$ ). Hypothesis 3

Proceedings of the Association of Collegiate Marketing Educators (2023) did not predict that social interaction would be positively related to the intention to play esports. Looking at the structural relationships, social interaction had no significant direct impact on intention to play esports ( $\beta = -.21$ ,  $p = .29$ ).

The current study indicated that enjoyment and escapism were significantly related to the intention to play esports. The finding suggests that psychological factors such as enjoyment and escapism have the possibility to attract esports players. The enjoyment, especially, had the most influence on the intention to play esports; enjoyment is the most important motivator for esports players to intend to play esports. In addition, experienced players who have played esports for more than four years on average did not intend to play esports for social interaction. This result implies that social interaction is not a critical factor in leading experienced players to play esports. While social interaction affected beginners' esports gameplay in previous research, the social interaction' motivational influence does not significantly apply to experienced esports players. One noticeable managerial implication is that providing fun and a good diversion from daily life would present a significant value to experienced esports players. Esports developers should pursue content with creative and solid storylines to provide more fun, and sports marketers should advertise an esports game as a good escape from one's daily routine.

## REFERENCES

- Banyai, F., Griffiths, M. D., Kiraly, O., & Demetrovics, Z. (2018). The psychology of eSports: A systematic literature review. *Journal of Gambling Studies*, 35(2), 351-365.
- Granic, I., Lobel, A., & Engels, R. C. M. E. (2014). The benefits of playing video games. *American Psychologist*, 69(1), 66–78. <https://doi.org/10.1037/a0034857>
- Hallmann, K., & Giel, T. (2018). Esports—Competitive sports or recreational activity? *Sport Management Review*, 21(1), 14–20. <http://dx.doi.org/10.1016/j.smr.2017.07.011>
- Hamari, J., & Sjöblom, M. (2017). What is eSports and why do people watch it? *Internet Research*, 27(2), 211-232.
- Jang, W. W., & Byon, K, K. (2019). Antecedents and consequence associated with eSports gameplay. *International Journal of Sports Marketing and Sponsorship*, 21(1), 1-22. doi:10.1108/IJSMS-01-2019-0013

**SENSORY EXPERIENCE AND PSYCHOLOGICAL  
CONNECTION AT SPORTING EVENTS**

**Daigo Yazawa, Springfield College, USA  
Jaejin Lee, Florida State University, USA**

---

**EXTENDED ABSTRACT**

The purpose of this study is to explore the role of a psychological variable in spectators' sensory experiences at sporting events. Customer experiences in a stadium/arena (i.e., stadium experiences) have been considered an essential aspect for sport teams to enhance brand loyalty because sport consumption is hedonic and experiential (Chanavat & Bodet, 2014; Yoshida, 2017). It is crucial to understand how spectators perceive their surroundings and whether their perceptions lead to repeated sporting event attendance or brand loyalty toward a sport team.

Lee, Lee, Seo, and Green (2012) developed the sensoryscape to measure stadium experiences via the five senses. The sight dimension relates to stadium features, whereas the sound dimension refers to crowd noise, sound system and music, and announcers in the stadium (Lee et al., 2012). The touch dimension is concerned with seat comfort, physical contact with other spectators, and spatial arrangement of aisles and seats, while the smell dimension includes the stadium's unique smells, crowd smells, food smells, and tailgate party smells (Lee et al., 2012). The taste dimension refers to whether the stadium offers a wide range of foods and beverages (Lee et al., 2012).

The current study utilizes a spectators' psychological variable to further examine their sensory experiences at sporting events. Funk and James (2001) developed the Psychological Continuum Model (PCM) that presents four distinct stages: awareness, attraction, attachment, and allegiance. The researchers of this study use the psychological connection with a sport team (Funk & James, 2001) to analyze differences in the degrees of sensory experiences among the four distinct stages. It is hypothesized that those with a stronger psychological connection with a sport team show a higher level of sensory experiences at the team's home sporting events than those with a weaker psychological connection with the team.

The study participants were undergraduate students at a large public university in the southeastern United States. Three hundred and fifty-nine usable responses were obtained using convenient sampling. In the online survey, the participants first indicated their most recent experience attending a sporting event in person. After selecting a sporting event, they answered questions consisting of the 22-item sensoryscape (Lee et al., 2012) to measure their sensory experiences at the event and the nine items from Doyle, Kunkel, and Funk (2013) to assess their psychological connection with the home team. All questions were measured on a scale of 1 (strongly disagree) through 7 (strongly agree).

Composite scores were computed for each of the five sensory experience dimensions (sight, sound, touch, smell, and taste). Following the procedure suggested by Doyle et al. (2013), the study participants' PCM stages were identified as follows: awareness (37.9%,  $n = 136$ ), attraction (18.9%,  $n = 68$ ), attachment (29.2%,  $n = 105$ ), and allegiance (13.9%,  $n = 50$ ). Multivariate Analysis of Variance (MANOVA) was conducted with the PCM as a grouping



## Proceedings of the Association of Collegiate Marketing Educators (2023)

variable to analyze differences in the sensory experience scores across the four stages. The results showed that there was a statistically significant difference in these scores among the four PCM stages [Wilk's Lambda = .650,  $F(21, 1003) = 7.741$ ,  $p < .05$ ]. Post hoc tests revealed that the individuals in the awareness stage scored significantly lower in all constructs than those in the other three stages. On the other hand, the individuals in the allegiance stage scored significantly higher in the touch, smell, and taste dimensions. The hypothesis was thus supported.

This study found that those in the awareness stage have a lower degree of sensory experiences than individuals in the other three stages. Another finding was that sensory experience scores increase as individuals move to a higher stage of the PCM. Whether it is sport competitions on the field or ancillary services, sporting events are a representation of team characteristics (e.g., team-brand-themed interior design, fight song played during the event). Highly involved fans possess biased cognitive processing in support of their favorite sport team (Funk & James, 2001), which can result in favorable responses to team-related stimuli at the team's home sporting events. Segmenting consumers and targeting specific groups are intended to move them on to the next stage by meeting the needs and wants at each stage (Doyle et al., 2013). Future researchers should use a segmentation approach in stadium and sensory experience research, and such understanding helps teams design sporting events that meet various sports consumers' needs and wants.

## REFERENCES

- Chanavat, N., & Bodet, G. (2014). Experiential marketing in sport spectatorship services: A customer perspective. *European Sport Management Quarterly*, 14(4), 323-344.
- Doyle, J. P., Kunkel, T., & Funk, D. C. (2013). Sports spectator segmentation: Examining the differing psychological connections among spectators of leagues and teams. *International Journal of Sports Marketing and Sponsorship*, 14(2), 20-36.
- Funk, D.C., & James, J.D. (2001). The psychological continuum model: A conceptual framework for understanding an individual's psychological connection to sport. *Sport Management Review*, 4(2), 119-150.
- Lee, S., Lee, H. J., Seo, W. J., & Green, C. (2012). A new approach to stadium experience: The dynamics of the sensoryscape, social interaction, and sense of home. *Journal of Sport Management*, 26(6), 490-505.
- Yoshida, M. (2017). Consumer experience quality: A review and extension of the sport management literature. *Sport Management Review*, 20(5), 427-442.

**A COMPARISON OF PARTICIPANTS AND NON-PARTICIPANTS OF RECREATIONAL SPORTS ACTIVITIES: A DYADIC STUDY**

**Sanjay S. Mehta, Sam Houston State University**  
**Irfan Ahmed, Sam Houston State University**  
**Vivek S. Natarajan, Lamar University**

---

**EXTENDED ABSTRACT**

Universities and colleges have been providing recreational sports facilities and services to their students since the existence of the earliest universities. While the competitive world of varsity sports creates its own lucrative universe of investment in sports facilities, the facilities created for recreational as opposed to varsity sports are generally not far behind. It is impossible to visualize a contemporary university campus without recreational sport and fitness facilities; indeed, the existence of such facilities is often a bragging point in university enrollment brochures and videos.

In pursuit of employee well-being – physical, mental and emotional – and consequent benefits to the individual as well as themselves, employers have been providing physical fitness and recreational sports opportunities and amenities for their employees. While the salutary effects of physical activity on health in general are beyond debate (Warburton and Bredin, 2017) the effects of fitness on student performance and well-being, as well as that of employees, have also been well-documented (Celestine et al, 2017; Kerr and Marjolein, 1993). The university recreational and fitness centers perhaps have the unique distinction of being designed to serve the needs of both students and employees.

While universities have been spending large amounts of money to build bigger, better, fancier recreational sports facilities (for example, a new fitness center under development at the University of Houston-Downtown is expected to occupy 72,000 square feet and cost \$38 million), questions have also been raised about the utilization of such facilities. While university facilities are generally run as not-for-profit operations, an appropriate metric would be the utilization of such facilities and thereby the utilization of common, often public resources that go into the development and operation of such facilities. Recent research (for example, Heinrich et al, 2017, Glasgow, Mastrich and Geller, 2021) has begun to explore the factors affecting the use of fitness facilities. This paper seeks to investigate the factors behind the participation of students in recreational sports (henceforth to encompass fitness) activities, and to identify those factors contributing to non-participation, so that action may be taken to ameliorate the effects of such factors towards increasing participation.

We propose a moderated-mediation mode of effects, with *participation* in recreational sports activities (RSA), *satisfaction* with the available RSA, and *attitude* towards RSA as the variables, in addition to age and availability of *personal* training. Multiple-item scales with acceptable reliability measures were used for satisfaction and attitude. Using two student samples

## Proceedings of the Association of Collegiate Marketing Educators (2023)

– of those who participate and those who do not participate in university recreational sports activities at a mid-size public university in the southwestern United States, we sought to assess the influence of attitude and satisfaction on participation. Specifically, a representative sample of participants were asked to complete a structured survey and report their level of awareness, participation, and satisfaction with the various activities currently offered by the department of recreation sports. Similarly, an independent sample of non-participants were asked to report their level of awareness, attitude towards sports and fitness, and their level of interest in recreational sports activities. Additional analysis include demographic characteristics of both participants and non-participants of university recreational sports activities. A structural equations model was utilized to determine the nature of relationships expressed in four hypotheses.

Broadly, results indicate that attitude mediates the relationship between awareness and satisfaction, awareness is positively related to attitude towards RSA, awareness of the nature and extent of RSA offerings is positively related to satisfaction with RSA, and attitude towards RSA is positively related to satisfaction. We discuss the implications of these findings for RSA program managers in their efforts to increase user satisfaction with RSA, and improving RSA design to enhance participation.

## REFERENCES

- Calestine, J, Bopp, M, Bopp, C.M., & Papalia, Z. (2017). College student work habits are related to physical activity and fitness. *International Journal of Exercise Science*. Volume 10, 7), 1009–1017.
- Glasgow, T.E., Mastrich, Z.E. & Geller, E.S. (2021): The utility of university fitness facilities: Environmental vs. psychological determinants of their use, *Journal of American College Health*, DOI: 10.1080/07448481.2021.2002874
- Heinrich, K.M., Haddock, C.K., Jitnarin, N, Hughey, J, Berkel, L.A., & Poston, W.S.C. (2017) Perceptions of important characteristics of physical activity facilities: implications for engagement in walking, moderate and vigorous physical activity. *Frontiers in Public Health*, Volume 5, 319.
- Kerr, J.H., & Vos, M.C. (1993). Employee fitness programmes, absenteeism and general well-being. *Work & Stress*, 7, 179-190.
- Warburton, D. E.R. & Bredin, S. S.D. (2017). Health benefits of physical activity: a systematic review of current systematic reviews. *Current Opinion in Cardiology*, Volume 32, 5 (September), 541-556.

# **STUDENT RESEARCH**

---

## **FAIRNESS AND ETHICS OF DYNAMIC PRICING** **AND ITS USE IN RETAIL BANKING**

**Sandy M. Knight, Sam Houston State University**  
**Irfan Ahmed, Sam Houston State University**

---

### **EXTENDED ABSTRACT**

Dynamic pricing is a pricing strategy that varies the price of a product based on its demand. This type of pricing strategy is common in the airline industry, entertainment industry, utilities such as electricity, and lodging industry. If there is an expected increase in demand, the price is raised as compared to situations of low demand, or the pricing norm. When this type of pricing is utilized, the underlying causes for the increase in demand may not be transparent to the consumer and may not be disclosed by the seller. While dynamic pricing has found favor as a method to maximize yield and enhance revenue for various types of businesses, its adoption has been slow if not non-existent in the retail banking industry. Meanwhile, dynamic pricing is being touted as a pricing innovation that the banking industry should embrace (e.g., PricewaterhouseCoopers 2019). This paper explores the fairness and ethics of dynamic pricing, consumer behavior regarding dynamic pricing and considers the possibility of deployment of dynamic pricing in retail banking. We review the literature on dynamic pricing, especially that pertinent to the issues of the ethicality and fairness of dynamic pricing (Haws and Bearden, 2006), and the factors influencing consumer behavior with respect to dynamic pricing (Victor et al, 2018).

Is dynamic pricing suitable for deployment in retail banking? Retail banking is generally understood to be the provision of banking services to individual consumers. Here we consider the appropriateness of using dynamic pricing by considering the regulatory environment of retail banking in the United States. Within the Banking industry each financial institution is required to adhere to various regulations such as Equal Credit Opportunity Act, Consumer Financial Protect Act, Unfair Deceptive Abusive Acts or Practices to promote a fair and ethical banking system. Additionally, compliance is required with Truth-In-Savings Act, Truth-in-Lending Act, Real Estate Settlement Procedures Act, and Expedited Funds Availability Act that require clear and transparent disclosure to outline the costs of certain financial transactions. While calls are being made for the adoption of dynamic pricing, we find prima facie problems with its adoption due to

Proceedings of the Association of Collegiate Marketing Educators (2023) the highly regulated nature of the banking industry, and the possible lack of transparency and equity that accompany dynamic pricing. Should banks be able to overcome the legal and regulatory impediments, there also remains the issue of consumer acceptance of dynamic pricing. We recommend further research among consumers, of the acceptability of dynamic pricing among banking customers.

## References

- Haws, K.L., & Bearden, W.O. (2006). Dynamic Pricing and Consumer Fairness Perceptions. *Journal of Consumer Research*, 33(3), 304-311. <https://doi-org.ezproxy.shsu.edu/10.1086/508435>
- PricewaterhouseCoopers (2019). *Pricing innovation in banking: The next frontier*. [https://www.pwc.in/assets/pdfs/research-insights/2019/pricing-innovation-in-banking.pdf, accessed on November 10, 2022]
- Victor, V., Joy Thoppan, J., Jeyakumar Nathan, R., & Farkas Maria, F. (2018). Factors influencing consumer behavior and prospective purchase decisions in a dynamic pricing environment – An exploratory factor analysis approach. *Social Sciences*, 7(9), 153.

**METHODS TO IMPROVE BRAND EQUITY AND BUYING  
BEHAVIOR BASED ON THE THEORY OF PLANNED  
BEHAVIOR (TPB)**

Ronil Prasad, Pepperdine University

---

**Introduction**

Variables such as brand equity and brand experience are strong predictors of buying behavior, (Borle et al, 2008; Brakus et al, 2009), and leveraging a brand's value proposition is one of the most effective ways to influence buying behavior (Moorthi & Mohan, 2017). These findings are consistent with existing theoretical frameworks for consumer behavior like the Theory of Planned Behavior (TPB), and the Motivation Need Theory, where adoption (and associated purchasing) is driven by the perceived usefulness and visibility of a product (Kumar, 2016). In all cases, the examination of the different variables, and marketing approaches used provides insight into how inputs affect the weight applied to decision making criteria (Lynch & Zauberaman, 2007). The Theory of Planned Behavior (TPB) states that intentions are the most effective predictor of behavior and intentions are based on behavioral, normative and control beliefs (Sieger & Monsen, 2015) and this model is commonly applied to consumer behavior analyses (Kumar & Smith, 2018).

The TPB was an update to the theory of reasoned action, which was created in 1975 by Fishbein and Ajzen (Hassan et al, 2016). The theory of reasoned action described intention to act as the result of attitudes towards a behavior and subjective norms, which the TPB introduced perceived behavioral control as an additional variable for behavior. (Hassan et al, 2016). Azjen found that intention to act (or purchase) is a better predictor of behavior than other variables, but this was found to be true only 33% of the time, as studies have shown that the effect of intention to actual behavior is only around 28% (Fennis et al, 2011). This disconnect is called the Intention-behavior gap (Abel et al, 2019).

The intention behavior gap is the disconnect between an intention to act and performing the action (Abel et al, 2019). There is a significant gap between intention and actual behavior, and a gap between a consumer's thoughts, intentions and their actions, and researchers consider the intention-behavior gap as a significant challenge that is not only poorly understood, but also not well studied (Hassan et al, 2016). Understanding the reasons for this disconnect and how to overcome this are important to companies and practitioners and can change how solutions are marketed, advertised, and eventually sold (Fennis et al, 2011). This paper will examine traditional behavioral variables that influence intention to purchase and explore methods to reduce the gap between intention and purchase.

**Brand Equity, Value, and the Theory of Planned Behavior**

Variables such as brand equity and brand experience are strong predictors of buying behavior, (Borle et al, 2008; Brakus et al, 2009), and leveraging a brand's value proposition is one of the most effective ways to influence buying behavior (Moorthi & Mohan, 2017). These

Proceedings of the Association of Collegiate Marketing Educators (2023)

findings are consistent with existing theoretical frameworks for consumer behavior like the Theory of Planned Behavior (TPB), and the Motivation Need Theory, where adoption (and associated purchasing) is driven by the perceived usefulness and visibility of a product (Kumar, 2016). In all cases, the examination of the different variables, and marketing approaches used provides insight into how inputs affect the weight applied to decision making criteria (Lynch & Zauberger, 2007).

The Theory of Planned Behavior (TPB) states that intentions are the most effective predictor of behavior and intentions are based on behavioral, normative and control beliefs (Sieger & Monsen, 2015) and this model is commonly applied to consumer behavior analyses (Kumar & Smith, 2018). The TPB model was derived from the theory of reasoned action and assesses the motivational factors that lead to behavior (Ajzen, 1991). Ajzen, (1991) identified three determinants of intended behavior: attitude towards the behavior, subjective norm, and behavioral control. Ajzen described attitude as how favorable (or not) an individual perceives the intended behavior to be; subjective norm is an element of social pressure exerted on an individual to perform (or not) the behavior; and behavioral control refers to the influence previous experiences associated with the behavior has on the intended action.

According to the findings, Ajzen, (1991) determined that attitude and subjective norm are strong enough to overcome any barriers that behavioral control may otherwise have, and ultimately lead to the behavior. Figure 1 depicts the relationships between these variables and their relationship to intention and behavior. Ajzen, (1991) described the interdependence of the variables and how each influenced the eventual decision to act.

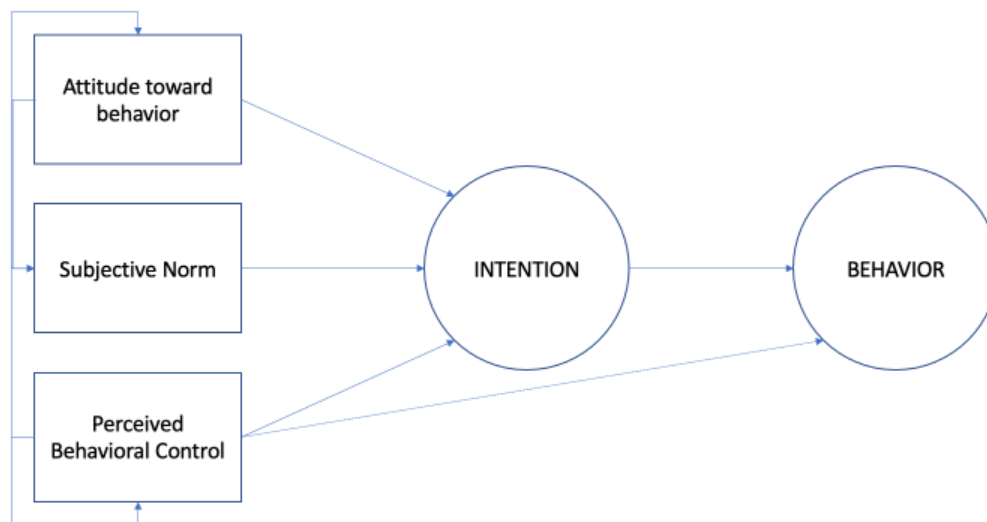


Figure 1 – Variables and their relationships within the TPB.

Application of TPB to understand consumer purchasing motivation of local food brands was conducted by Kumar & Smith, (2018) who found that consumer focus on health, concerns about the environment and concerns about the local economy were high enablers of attitude, while the social influence associated with local foods and healthy eating were very high enablers of subjective norm. The study (Kumar & Smith, 2018) also discovered that behavioral control was not a significant variable and aligned with Ajzen’s findings that attitude and subjective norm were the more dominant predictors of behavior and applied to purchasing local foods. A study by Raygor, (2016) also found the same impact of attitude and subjective norm where the level of supportive attitudes of target consumers were lower than anticipated and identified as a reason for

Proceedings of the Association of Collegiate Marketing Educators (2023)

a lower volume of sales. As part of the study Raygor, (2016) recommended the use of advertising to increase awareness as well as improve the social influence.

TPB can also help explain impulse buying trends and the role of social influence in consumer buying behavior. A study by Yoon et al, (2012) found that stress can be a significant variable in the decision-making process, and especially if the stress is related to time; stress associated with the pressure to decide relative to time further influences the decision. This study also found that individuals are susceptible to social pressure and will try to reach symmetry in feelings, objections, and decision-making with their peers; as part of a research focus group, Yoon et al, (2012) observed that participants of the group changed earlier opinions to match the opinions of others in the group, which was partly because of pressure and because of the influence the social group of peers exerted.

Buyer intentions are useful in predicting future purchasing behavior however the delay of time is unclear so while marketing, education, offers, and other promotions are intended to influence purchasing behavior, they often only influence intentions without results (Van Ittersum, 2012). Low levels of the intention-behavior gap are ideal and understanding ways to reduce this gap will help companies and practitioners understand the final buying stage of the customer journey and increase the probability of purchase (Sun et al, 2017). Fennis et al (2011), found that introducing a planning approach reduced the intention-behavior gap and increased the motivation to purchase. Implementation-intention introduces additional variables associated with the goal achievement pertaining to the “where,” “when,” and “how” of achieving the goal (Fennis et al, 2011). When individuals plan to complete a task, the chance of completing the task increases so planning is one way of reducing the intention-behavior gap; planning helps roadmap the steps necessary for the purchase along with any intermediate steps that are necessary and also serves as a form of commitment that removes forgetfulness or hesitation that appears with purchasing (Abel et al, 2019).

### **Implications for Global Leadership**

Raggio & Leone, (2008) and Goldfarb et al, (2009) found that brand equity influences all major outcomes associated with the brand, such as purchase, loyalty, and price premiums and affects the effectiveness of activities such as advertising, marketing, and promotions, and provides pricing power. The recognition and utilization of brand equity is crucial in driving long-term brand value; once this is understood, firms then need to develop strategies to maintain and grow equity (Raggio & Leone, 2009)

The process of convincing consumers about the value of a brand is critical because consumers rationalize the brand’s role relative to the importance of their needs and the inputs from the brand affect the weight applied to the decision-making process (Lynch & Zauberaman, 2007). Brand adoption is also driven by the perceived usefulness, effectiveness, attractiveness and most importantly, visibility of the brand, which is why advertising and promotion are such key activities (Kumar, 2016).

Venkatraman et al, (2012) described the process of marketing a brand being based on three key aspects: firstly, in the evaluation stage where consumers determine to buy a product or not, several preference measures come into play to determine whether a product and its associated price are within the range of the consumer. Secondly there is context dependency that affects preferences and lastly, the preferences vary among different consumer groups so any marketing and messaging must account for this. Venkatraman et al (2012) referred to this alignment of preferences because of market segmentation, which refers to the focused partitioning of a



Proceedings of the Association of Collegiate Marketing Educators (2023)

customer base into subgroups based on unique needs, has evolved to include the attitudes consumers have that are shaped from brand loyalty, anticipated benefits, and the frequency of use. This study also validated the consumer behavior process of evaluation where even though a typical consumer in the US views, uses, or is exposed to several thousand brands in a day, consumers often skip the process of evaluation and make purchasing decisions automatically.

Venkatraman et al, (2012) found that emotions, previous actions, social comparisons, and memory are variables that provide context to the consumer regarding choice. This was also validated by Kahle et al, (2000), who stated that the consumer decision making process is affected by three conditions: characteristics of the decision problem, characteristics of the person, and characteristics of the social context.

In terms of influence, previous studies have found cognitive processes related to the valuation process that feeds into a subconsciously developed system of evaluating the value of brands, which are used by consumers in the decision-making process (Yoon et al, 2012). This relates back to the brand's value. A consumer's perceived brand value originates from the rational and emotional ideas and feelings they form (Cobb-Walgren et al, 1993) and influenced significantly by the brand's value proposition (Moorthi & Mohan, 2017).

A brand's value proposition summarizes the ways in which a product or brand fulfills the needs of a customer and provides a compelling justification about why a consumer should buy that product or brand. (Moorthi, & Mohan, 2017). In their study, Moorthi & Mohan (2017) tested the effects of value proposition to bank customers and whether a value proposition that offers greater functional and emotional benefits would increase customer purchasing activities or whether a value proposition that offered greater self-expressive benefits was more effective. Moorthi & Mohan, (2017) defined value proposition as the reasons why consumers buy from one company instead of the competition, which agrees with findings related to consumer behavior associated with the hierarchy of needs and the drive to fulfill the needs (Griskevicius & Kenrick, 2013).

Moorthi & Mohan, (2017) defined two types of value proposition associated with a product or brand, the brand's value proposition and the organization's value proposition. They defined organizational value proposition as the value proposition that is based on reputation, performance, the portfolio, and value chain relationships; this creates the unique VP (UOVP) that is specific to the organization. Moorthi & Mohan, (2017) stated that UOVP is unique and powerful since product or brand value propositions often contain merits of functional benefits, which can be replicated by others. UOVP is unique to an organization and therefore increases overall differentiation and leads to greater loyalty, and profitability. The study also argued that many organizations underutilize or incorrectly use value proposition. The authors' opinion was that value proposition was often used softly and never properly capitalized, especially because value proposition needs to be embedded into the organizational strategy to truly transfer the brand value to all stakeholders.

Additionally, the study by Moorthi & Mohan, (2017) argued that value proposition was often just a standard list of perceived company or product benefits that can be offered rather than a solution to what the customer truly wants, needs, and applies intrinsic value to. This point was validated with the study because Moorthi & Mohan, (2017) found that functional benefits, which refer to the utility of a brand, and relates to the rational motives of functionality (ease of use, easier process, etc) influenced the value proposition the most, followed self-expressive benefits (refers to image and appeals more to an individual's ego) and then emotional benefits (related to

Proceedings of the Association of Collegiate Marketing Educators (2023) feelings generated by the brand). Collectively, organizations need to consider these variables to compete and succeed and must acknowledge the changes to be able to adapt.

### Conclusion

This paper will be extended as part of a dissertation to further understand the ways in which buyer behavior and brand equity can be improved. Acknowledgement of the intention-behavior gap is crucial in bridging the distance between intention and behavior and will be considered as part of the research. Completion of this dissertation topic is later 2023.

### References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Borle, S., Singh, S. & Jain, D.C. (2008). Lifetime value measurement. *Management Science*, 54(1), 100-112.
- Brakus, J.J., Schmitt, B.H., & Zarantonell, L. (2009). Brand experience: What is it? How is it measured? Does it affect loyalty? *Journal of Marketing*, 73(3), 52-68.
- Cobb-Walgren, C.J., Ruble, C.A., & Donthu, N. (1995). Brand equity, brand preference, and purchase intent. *Journal of Advertising*, 24(3), 25-40.
- Goldfarb, A., Lu, Q., & Moorthy, S. (2009). Measuring Brand Value in an Equilibrium Framework. *Marketing Science*, 28(1), 69-86.
- Griskevicius, V., & Kenrick, D.T. (2013). Fundamental motives: How evolutionary needs influence consumer behavior. *Journal of Consumer Psychology*, 23(3), 372-386.
- Hassan, L.M., Shiu, E., & Shaw, D. (2016). Who says there is an intention-behaviour gap? Assessing the empirical evidence of an intention-behavior gap in ethical consumption. *Journal of Business Ethics*, 136(2), 219-236
- Kahle, L.R., Liu, R.R, Rose, G.M., & Kim, W.S. (2000). Dialectical Thinking in Consumer Decision Making. *Journal of Consumer Psychology*, 9(1), 53-58.
- Kumar, A., & Smith, S. (2018). Understanding local food consumers: Theory of planned behavior and segmentation approach. *Journal of Food Products Marketing*, 24(2), 196-215. <https://doi.org/10.1080/10454446.2017.1266553>
- Kumar, P.K. (2016). A theoretical framework for understanding consumer behavior towards smartwatches. *GE-International Journal of Management Research*, 4(11), 34-40.
- Lynch Jr., J.G., & Zauberman, G. (2007). Construing consumer decision making. *Journal of Consumer Psychology*, 17(2), 107-112.
- Moorthi, Y.L.R., & Mohan, B.C. (2017). Brand value proposition for bank customers in India. *International Journal of Bank Marketing*, 35(1). <https://doi.org/10.1108/IJBM-09-2015-0132>

Proceedings of the Association of Collegiate Marketing Educators (2023)

Raggio, R.D., & Leone, R.P. (2009). Drivers of brand value, estimation of brand value in practice and use of brand valuation: Introduction to the special issue. *Journal of Brand Management* 2009(17), 1-5. <https://doi.org/10.1057/bm.2009.16>

Raygor, Andrea D., "The Theory of Planned Behavior: Understanding Consumer Intentions to Purchase Local Food in Iowa" (2016). *Graduate Theses and Dissertations*. 15798. <https://lib.dr.iastate.edu/etd/15798>

Sieger, P., & Monsen, E. (2015). Founder, Academic or Employee? A nuanced study of career choice intentions. *Journal of Small Business Management*, 53(S1), 30-57. <https://doi.org/10.1111/jsbm.12181>

Raygor, Andrea D., "The Theory of Planned Behavior: Understanding Consumer Intentions to Purchase Local Food in Iowa" (2016). *Graduate Theses and Dissertations*. 15798. <https://lib.dr.iastate.edu/etd/15798>

Venkatraman, V., Clithero, J.A., Fitzsimons, G.J., Huettel, S.A. (2012). New scanner data for brand marketers: How neuroscience can help better understand differences in brand preferences. *Journal of Consumer Psychology*, 22(1), 143-153.

Yoon, C., Gonzalez, R., Bechara, A., Berns, G.S., Dagher, A.A., Dube, L., Huettel, J.W., Liberzon, I., Plassmann, H., Smidts, A., & Spence, C. (2012). Decision neuroscience and consumer decision making. *Marketing Letters*, 23(2) 473-485.