



## **IC4E 2020**

2020 the 11th International Conference on  
E-Education, E-Business,  
E-Management, and E-Learning



Ritsumeikan University, Osaka, Japan  
January 10-12, 2020



**The Association for Computing Machinery  
2 Penn Plaza, Suite 701  
New York New York 10121-0701**

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**ACM ISBN: 978-1-4503-7294-7**

# Table of Contents

## 2020 the 11th International Conference on E-Education, E-Business, E-Management, and E-Learning (IC4E 2020)

Preface.....	ix
Conference Committee .....	x

### ◆ *Session I-Teaching Method*

Instructional Design Learning: A Framework of A Blended Discovery-Project Model in Electronic Engineering .....	1
<i>Muhammad Imron Romadhon, Suprpto, Onky Muhammad, Nur Qomariyah</i>	
Investigating Challenges and Benefits of Educational Equalization Oriented Blended Synchronous Learning .....	5
<i>Yafei Shi, Mingwen Tong, Jia Sun, Hongbin Dai, Taotao Long, Xin Long</i>	
Progression of Scientific Reasoning and Metacognitive Regulation of Secondary Students in the New K-12 Curriculum in Blended Learning Environment.....	10
<i>Isalyn F. Camungol, Yves I. Gonzales, Lydia Roleda</i>	
Development of an Interdisciplinary Blended Learning Module for Postgraduate Research Methodology Course .....	15
<i>Rabiah Eladwiah Abdul Rahim, Chen Soong Der, Norashidah Md Din</i>	
Measuring Quality in Blended Learning: A Multimodal of the Sloan Consortium, Key Success Indicators and Transformative Driven Mechanism .....	20
<i>Malissa Maria Mahmud, Othman Ismail</i>	
Self-Regulated Learning Strategies in Technology-Enhanced Learning: Teaching Self-Monitoring and English Oral Presentation Skills in Graduate Program .....	25
<i>Pi-Ying Hsu</i>	
A Meta-Analysis of Blended Learning Trends .....	30
<i>Malissa Maria Mahmud, Marisha Barth Ubrani, Wong Shiau Foong</i>	
Factors Influencing Vietnamese Dentistry Students' Autonomy: A Q-Methodology Study .....	37
<i>Nguyen T.T. Cao, Tien T.T. Lam, Binh L. Cao, Bich T.N. Tran, Thiet M. Trinh, V.V. Dorofeeva, De V. Tran</i>	
Principles of Learner Autonomy as a Base for Teaching Professionally Oriented Foreign Language .....	43
<i>Galina G. Artyushina, Natalia L. Zhurbenko, Olga A. Sheypak</i>	

### ◆ *Session II- Educational Technology*

The Students' Acceptance and USE of Their University's Virtual Learning Environment .....	48
<i>Mark Anthony Camilleri, Adriana Caterina Camilleri</i>	
Exploring the Potential of Augmented Reality Teaching Aid for Vocational Subject .....	54
<i>Abdul Rahim Jabar, Nur Hazirah Noh@Seth, Hanifah Jambari, Mohamad Rasidi Pairan, Nurul Aini Mohd Ahyan, Nur Hidayah Lokman</i>	
Effects of Technology-Integrated Brain-Friendly Teaching on Retention and Understanding in Photosynthesis and Cellular Respiration .....	59
<i>Retone Lourence E., Prudente Maricar S.</i>	
The Development of One Stop Service Online System based on User Experience Design and AGILE Method .....	64
<i>Jaemjan Sriarunrasmee, Chutiporn Anutariya</i>	

Technology Integration, Proficiency and Attitude: Perspectives from Grade School Teachers.....	70
<i>Janette B. Torrato, Maricar S. Prudente, Socorro E. Aguja</i>	
Peer Ratings of Grade 11 Students Using Technology and Traditional Materials in Their Oral Presentations .....	76
<i>Maria N. Cusipag</i>	
Socioemotional Skill Domains in Robotics Performance Tasks using Design Thinking Process .....	81
<i>Ivan Joseph M. Arevalo, Rose Ann F. Caliste, Maricar S. Prudente</i>	
The Effectiveness of Robotics Intervention Strategy (RIS) among Robotics Elite Members .....	87
<i>Genevieve A. Pillar, Maricar S. Prudente, Socorro E. Aguja</i>	
Assessing the Potential of Augmented Reality in Education .....	93
<i>Muhamad Ikhsan Sahal Guntur, Wahyu Setyaningrum, Heri Retnawati, M. Marsigit</i>	
Overcoming Laboratory Anxiety through Technology-Integrated Laboratory Activities.....	98
<i>Karina L. Damo, Rhoda T. Garcia, Maricar S. Prudente</i>	
Digital Learning Environments-Constructing Augmented and Virtual Reality in Fire Safety .....	103
<i>Brita Somerkoski, David Oliva, Kimmo Tarkkanen, Mika Luimula</i>	

### ◆ **Session III- Educational Research**

A Nonlinear Dynamic Model for Individual Learning with Plateau Phenomenon.....	109
<i>Xia Wu, Yumei Zhang, Xiaojun Wu, Weitong Sun</i>	
Preventing Plagiarism with Integrated Technology, Pedagogy, and Content Knowledge .....	116
<i>Daniel George Dusza</i>	
The Game and Integration between Online Education and Traditional School Education.....	121
<i>Zhang Runtian</i>	
What are the Key Barriers for the Course Comprehension of Chinese Students in Lecture of French Higher Education? A DANP Approach .....	125
<i>Hsin-I Lee, Sheng-Hsiung Chiu, Xiao-Na Chen, Xiao-Zhen Liao, Tzu-Yu Lin</i>	
Incorporating Historical Short Stories in Junior High School Science Lesson .....	130
<i>Mylha H. Baltazar, Lydia S. Roleda, Maricar S. Prudente</i>	

### ◆ **Session IV- Online Learning**

Implementing Innovative Online Teaching-learning Practice in Higher Education: Understanding Student Perspective .....	136
<i>Meenakshi Sharma, Alka Dwivedi, Anita Sengar, Manisha Solanki</i>	
The Effects of Online-Based 3D Page Flip Science Module on Elementary School Students' Learning Motivation in Indonesia.....	141
<i>Diah Susanti, Zuhdan Kun Prasetyo</i>	
Review of Deep Learning-Based Personalized Learning Recommendation .....	145
<i>Ling Zhong, Yantao Wei, Yao Huang, Wei Deng, Zhifeng Wang, Mingwen Tong</i>	
Satisfaction in E-Learning Courses for Undergraduate Students of Ho Chi Minh City University of Education: A Case Study on the Course “An Introduction to the Teaching Career” .....	150
<i>Son Van Huynh, Long Duc Le, Hoi Duc Dinh, Huan Thanh Nguyen, Vu Thien Giang</i>	

Characteristics and Learning Behavior of Active Learners on SWU-MOOC .....	158
<i>Rathapol Pradubwate, Nutteerat Pheeraphan, SFHEA, Naruemon Sirawong, Nipada Trirat</i>	
Completion Rate, Satisfaction and Opinion on Thai Massive Open Online Courses: Reflection on SWU MOOC's Learners .....	163
<i>Nipada Trirat, Nutteerat Pheeraphan, SFHEA, Rathapol Pradubwate, Naruemon Sirawong</i>	
The Use of Turnitin to Teach Academic Integrity in Essay Writing Coursework.....	169
<i>Astri Hapsari, Mohammad Izam Ghali, Miftah Haniful Ammar</i>	
E-learning Material on Gender Equality in Information System Professions.....	174
<i>Brita Somerkoski, Reima Suomi</i>	
E-learning Promotion: Effects of Physical Effort and Age on Creativity .....	180
<i>Wanran Zhou</i>	
Students' Perception in Experiencing <i>ed.ted.lesson</i> as Text Mediated Exposure of Listening Skills .....	184
<i>Intan Pradita</i>	
Using Online Handwritten Character Recognition in Assistive Tool for Students with Hearing and Speech Impairment .....	189
<i>Mary Jane C. Samonte, Allyssa Raven I. Garcia, Bianca Janine D.Valencia, Michael Jae S. Ocampo</i>	

### ◆ **Session V- Teaching Assessment**

A Mobile-based Assessment in Chemistry: Indonesian Pupils' Perception.....	195
<i>Nur Qomariyah, Anti Kolonial Prodjosantoso, Muhammad Imron Romadhon, Agus Styawan, Chalidin Shaleh Zarkasyi, Tiara Lestari Paembonan</i>	
Cause Analysis Utilizing e-Assessment on the Least Mastered Contents of K-12 Basic Education Curriculum.....	199
<i>Rodney T. Cajimat, Denis Dyvee R. Errabo, Honelly Mae S. Cascolan, Maricar S. Prudente</i>	
Exposition of Improved Practice on Technology Embedded Approach to Learning Exemplars Demonstration for Science Investigation .....	204
<i>Denis Dyvee R. Errabo, Honelly Mae S. Cascolan, Rodney T. Cajimat, Maricar S. Prudente</i>	
Improving Online Peer Assessment Engagement: Interaction between Signature Forms and Rubric .....	208
<i>Li Hongxia, Zhao Chengling, Jiang Zhihui, Zhao Gang, Zhu Wenjuan</i>	
Development and Validation of Next Generation Blended Learning Environment Questionnaire for Senior High School Students .....	213
<i>Salvador John M. Magalong, Maricar S. Prudente</i>	

### ◆ **Session VI- Multimedia Teaching**

Improving Students' Reflections in Physics Class Using Video-based Journals .....	218
<i>Jaypee M. Limueco, Maricar S. Prudente</i>	
Narrative Inquiry of Teacher's Experiences in Using Multimedia in Vocational High School .....	223
<i>Syahrul Yaqin</i>	
Promoting English Listening and Speaking Ability by Computer-Supported Collaborative Learning .....	228
<i>Yi-Chien Wang</i>	
The Effectiveness of Using YouTube Videos to Teach Grammar for EFL Students with Learning Disabilities .....	234
<i>Hui-Wen Huang</i>	

The Use of Audiovisual Method for Classroom Practices in Indonesia High School Context.....	240
<i>Rahmad Saputra</i>	
Integrating Physics in Disaster Risk Reduction (DRR) through YouTube Videos .....	244
<i>Jhoanne Catindig, Maricar S. Prudente, Mark Joseph Orillo</i>	
The Practical Training Development of Digital Electronic Technology Course.....	249
<i>Yi Tian</i>	
Distributed Virtual Courses to Teach Global Software Engineering: Lessons Learned and Best Practices .....	256
<i>D. Moritz Marutschke, Victor V. Kryssanov, Patricia Brockmann</i>	

### ◆ **Session VII-Innovative Teaching**

Game Element Preferences and Engagement of Different Hexad Player Types in a Gamified Physics Course .....	261
<i>Amado Coleen M., Roleda Lydia S.</i>	
Increasing Student Motivation in College Physics with Gamified Instruction.....	268
<i>Ma. Kristina B. dela Cruz, Analyn N. Tolentino, Lydia S. Roleda</i>	
The Implementation of Kahoot! (A Game-Based Student Response System): A Tool Used in Improving Learning Motivation of Elementary School Students .....	275
<i>Sukowati, E. Kus Eddy Sartono</i>	
Practice of Calculus Lecture Using Peer Instruction by Audience Response System .....	279
<i>Hidetaka YAMAOKA, Makoto NISHI, Tetsuya TANIGUCHI, Tomoshige KUDO</i>	
Using Lesson Playlist through Schoology-Based Flipping the Classroom (FTC) approach in Enhancing STEM Students' Performance in General Biology 1.....	284
<i>Dagame O. Bohol, Maricar S. Prudente</i>	
Research on the Impact Indicator System of E-Commerce Innovation Experimental Teaching—Deep Fusion Evaluation Method Based on EWM-AHP .....	290
<i>Wanyu Wang, Qiang Li</i>	

### ◆ **Session VIII-Finance**

Forecasting the Short-term Price Trend of Taiwan Stocks with Deep Neural Network .....	296
<i>Ming-Che Lee, Jie-Shan Liao, Sheng-Cheng Yeh, Jia-Wei Chang</i>	
Inference of the Us and Chinese Stock Markets Using Statistical and Computational Methods .....	300
<i>Junjin Ran</i>	
Application of Cluster Analysis in Stock Selection in United States Stock Market.....	310
<i>Shuo Wu</i>	
Transitioning to a Unified Global Currency .....	314
<i>Behzad Mehrpour Sheijani, Elgilani Elshareif, Alfred Lewis</i>	
Artificial Intelligence and Application in Finance.....	317
<i>Mengyuan Zhang</i>	

## ◆ **Session IX-Enterprise Informatization**

Odo ERP with Business Intelligence Tool for a Small-Medium Enterprise: A Scenario Case Study .....	323
<i>J. Y. Wu, L. T. Chen</i>	
Supplier Selection Model Research .....	328
<i>Xiaosong Li, Xinran Peng, Tian Liu, Mingxing Yuan</i>	
De La Salle Zobel's Employee Request System: Current State and Future Directions .....	333
<i>Ruby P. Ramos, Maricar S. Prudente, Socorro E. Aguja</i>	
The Moderation Effect of Supply Chain Information Technology Capabilities on the Relationship between Customer Relationship Management with Organizational Performance of Thai Restaurants and Hotels .....	338
<i>Kittisak Jermsittiparsert</i>	
Business Intelligence Dashboard for Driver Performance in Fleet Management .....	347
<i>Aulia Syahirah Khalid, Noor Hafizah Hassan, Nur Azaliah Abu Bakar Razak, Ahmad Fazreen Baharuden</i>	
Application of Stage-gate System in the Management of Defense Scientific Research Projects .....	352
<i>Zhou Jing, Li Zenghua, Zang Xuejun</i>	

## ◆ **Session X-E-Commerce**

The Moderating Effect of Artificial Intelligence Phobia on the Relationship between Trust and Product Promotion Effectiveness: An Exploratory Study .....	356
<i>Chuan-Yu Wang, Yuxuan Song, Chih-Yun Wu, Pu-Tai Yang</i>	
Amazon's Market Demand and Differential Product Selection Research .....	360
<i>Haowei Ti, Liang Huang, Leigang Pei</i>	
The Impact of E-Wallet on ADNOC's Customer Satisfaction .....	364
<i>Gaukharay Argimbayeva, Ines Menasria, Elgilani Elshareif, Alfred Lewis</i>	
Customer E-Loyalty of Muslim Millennials in Indonesia: Integrated Model of Trust, User Experience and Branding in E-Commerce Webstore .....	369
<i>Nur Rizqi Febriandika, Afifah Nur Millatina, Luthfiyatillah, Sri Herianingrum</i>	
Re-shaping Financial Mechanisms in the Context of Technological Innovation .....	377
<i>Yasmina Chaouch, Elgilani Elshareif, Alfred Lewis</i>	
Examining the Antecedents of Customer Adoption and Intention to Use Mobile Wallet: An Empirical Investigation..	380
<i>Min-Yee Leong, Jing-Hui Kwan, Ming-Ming Lai</i>	

## ◆ **Session XI-Management Science**

The Relationship between Customer Satisfaction and Location of Restaurant .....	385
<i>Xu Han, Shuo Xu, Yue Xiong, Siqi Zhao</i>	
Role of Managerial Characteristics and Internet.Org in Social Commerce Adoption by SMEs .....	396
<i>Naveeda Sangi, Liu Shuguang, Abdur Rashid Sangi</i>	
Cost-benefit Analysis of Investment in Airport Expansion Project: A Case Study of Hangzhou Xiaoshan Airport .....	403
<i>Mingyang Liao</i>	

Research on Motivation and Regulation of Big Data "Slaughter" Behavior .....	407
<i>Wang Zihaoran</i>	

◆ ***Session XII- Information Technology Applications***

Analyzing Bilingual and “Taglish” Texts in E-barangay Mobile Application System .....	412
<i>Mark Anthony D. Vale, Franklin Oliva, Rex P. Bringula, Daniel Joseph T. De La Serna, Jenard A. Napolis</i>	

CAHM: Companion Animal Health Monitoring System .....	417
<i>Van Keith B. Almazan, Frank Ismael B. Mahipus, Jose Rafael M. Santos, Mary Jane C. Samonte</i>	

The Research of Cognitive Rehabilitation Training System for ADHD Children .....	422
<i>Liyang Chen, Lu Lin, Jiye Weizhou, Shaolong Lin, Weiqiang Lin</i>	

Using Collaborative Filtering Algorithm to Estimate the Predictive Power of a Functional Requirement .....	426
<i>Reynald Jay F. Hidalgo, Proceso L. Fernandez</i>	

<b><i>Author Index</i></b> .....	431
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# Preface

2020 the 11th International Conference on E-Education, E-Business, E-Management, and E-Learning (IC4E 2020) was held successfully January 10 to 12, 2020, at Ritsumeikan University, Osaka, Japan.

IC4E provides a scientific platform for both local and international scientists, managers, business leaders, educators, scholars, engineers and technologists who work in all aspects of Business and Information Management. The participants are from China, Thailand, Malaysia, Taiwan, Japan, Finland, Canada, Germany, Philippines, Vietnam, Indonesia, India, Russia, Saudi Arabia, etc.. The participants did a truly wonderful job at the conference.

This volume contains 80 excellent and innovative papers, which are related to Teaching Method, Educational Technology, Educational Research, Online Learning, Teaching Assessment, Multimedia Teaching, Innovative Teaching, Finance, Enterprise Informatization, E-Commerce, Management Science and Information Technology Applications.

On behalf of the Organizing Committee, we are grateful for the excellent services provided by all committee members and session chairs, during or throughout the conference. The chairperson of each session played an important role in guiding the sessions in a timely and efficient manner. The success of this conference would not have been possible without the reviewers, who volunteered their time in helping select high quality papers and provided invaluable constructive feedback to improve these papers.

We truly believe that the participants will find the discussion fruitful and enjoy the opportunity for setting up future collaborations.

Conference Chair  
Prof. Kuan-Chou Chen  
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# Customer E-Loyalty of Muslim Millennials in Indonesia: Integrated Model of Trust, User Experience and Branding in E-Commerce Webstore

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## ABSTRACT

Muslims have unique characters which are closely related to their religious background. With the high growth of e-commerce in Indonesia, it is important to study Muslim market segments where Indonesia itself is a country with the largest Muslim population in the World. The progress of the halal financial industry and business also triggers the e-commerce development among Muslim Millennials. Muslim Millennials will become the main market and the largest customer segment In Indonesia since one-third of its population is dominated by millennials. The aim of this research is to develop and test a comprehensive model that explains how Muslim Millennials develop loyalty to online shopping websites (e-commerce). To test the research model, the online survey was distributed to a random sample of highly educated Muslim Millennials. The results found that positive online experience (flow) is the most important antecedent of e-loyalty in e-commerce websites for Muslim Millennials. Brand equity is also a key precursor of e-loyalty. However, trust is not a significant precursor of e-loyalty for Muslim Millennials in Indonesia.

## CCS Concepts

• **Social and professional topics** →User characteristics  
→Religious orientation

## Keywords

Webstore; e-commerce, online shopping; trust; e-loyalty; muslim customers.

## 1. INTRODUCTION

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IC4E 2020, January 10–12, 2020, Osaka, Japan

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ACM ISBN 978-1-4503-7294-7/20/01...\$15.00

DOI: <https://doi.org/10.1145/3377571.3377638>

Millennials is a generation terminology that is currently widely discussed by many groups in various fields of study. Millennials (also known as Generation Y) are a demographic group (cohort) after Generation X [1]. Social researchers often classify generations born between the 1980s and 2000s as millennials. It can be said that the millennial generation is today's young generation. Millennials are portrayed as individuals who are self-centered, technologically literate, environmentally conscious, and have a low level of brand loyalty [2]. Millennial likes products that fit their personalities. They are creative, confident, and connected [3]. Millennial is always connected and connected to one another through the latest technology. Maulina and Hendriyani (2018) suggested that millennial generation seems to be more positive and collaborative [4].

Millennial generation is different from its predecessor generation. This generation tends to be more adaptable to new technology. This generation has values, preferences, and shopping behavior that is different from other generations [5]. 25% of the world's population is the millennial generation which incidentally lives where the internet already exists and is growing rapidly [6]. Therefore, they have a strong dependence on technology and the internet. Compared to Baby Boomers or older generations, millennials can access information from websites, including e-commerce, 5 times faster [7] [8] [9].

On the other hand, Indonesia has a fairly high e-commerce market growth rate with an average growth of 17% per year according to data released by Frost & Sullivan. As one of the countries with the highest population in the world, Indonesia has become a country that has had significant e-commerce developments in recent years. British research institute, Merchant Machine, released a list of ten countries with the fastest growing e-commerce in the world. Indonesia leads the ranks of these countries with a growth of 78% in 2018 [10]. The number of internet users in Indonesia, which is more than 100 million users, is one of the forces driving e-commerce growth. The average money spent by Indonesians on online shopping sites is US \$ 228 per person or around Rp. 3.19 million per person. Around 17.7% of respondents spend their money to buy plane tickets and book hotels online. As many as 11.9% of respondents spend their money on clothing and footwear products. The third most popular category is health and beauty products chosen by 10% of respondents. Furthermore, the growth

of smartphone users is also one of the drivers of e-commerce development in Indonesia. Indonesia is the largest e-commerce market in Southeast Asia.

According to a study by the Central Statistics Agency (BPS), Indonesia had a population of more than 260 million in 2017. Meanwhile, if viewed from the number of internet users (mainly via smartphones) in 2017 it reached 86.6 million users. This figure increased by 17.2 million users compared to 2016 or increased by 24%. When seen its development in the past 3 years, there has always been an increase. Initially only 38.3 million users in 2014, then 52.2 million users in 2015 then became 69.4 million users in 2016, until finally in 2017 amounted to 86.6 million users. In terms of religion, the majority of Indonesia's population adheres to Islam. Around 87.2% of the total population of Indonesia is Muslim [1].

Today almost everyone has gadgets like smartphones that are equipped with internet access, e-mail, social media and the marketplace, thus enabling businesses and consumers to transact via smartphones. The ease of accessing the internet increases businesses to use the internet as a medium to advance their business by offering their products via the internet. This is reinforced by data obtained from the Indonesian Internet Service Providers Association (APJII) in 2017, where the largest percentage of 45.14% of the internet was used to find prices, 37.82% was used as buying information and the smallest was 16.83% used to sell online [12].

Meanwhile, Indonesia has the largest Muslim population in the world which makes the majority of millennials in Indonesia are Muslims [13]. The progress of the halal financial industry and business also triggers the e-commerce development among Muslim Millennials. Muslim Millennials will become the main market and the largest customer segment in Indonesia since one third of its population is dominated by millennials. The aim of this research is to develop and test a comprehensive model that explains how Muslim Millennials develop loyalty to online shopping webstore (e-commerce).

## **2. THEORETICAL BACKGROUND**

### **2.1. Generation Theory and Religious Background**

Generational differences in social life are one subject that always arises in the development of human resource management. Therefore, the concept of generational difference continues to develop over time. In sociology, there are 8 groupings based on the year of birth. The grouping consists of: 1) Generation of War (Classical War, World War I, and World War II), 2) Post World War II Generation, 3) Generation of Depression Era, 4) Baby Boomer Generation, 5) Generation X, 6) Generation Y, 7) Generation Z, 8) Generation Alpha. They are born in different environmental conditions and situations, therefore the characters they have differ from one another [14]. It does not mean that every person born in the same era has the exact same character, but there are main and prominent characters that become the identity of a society living in a certain era [15] [16].

Millennials have a unique attitude towards brands where they live in an era where many brands have been in circulation compared to the previous generation [17]. Basically, millennial generation has a low level of loyalty towards a brand [18] but has a high ability to process all forms of information that come from web sites. It also applies to muslim millennials. Muslims have a unique

character that is closely related to their religious beliefs [19]. Religion is a phenomenon with effects at various levels of analysis: individual, social, organizational, macroeconomic, national and regional [20]. There are many studies on the influence of religion in other literature, such as investment and business. This paper will emphasize the level of loyalty of Muslim millennials towards e-commerce, especially for websites. Therefore, this next section will discuss design elements for online shopping websites and develop hypotheses about how these design elements can trigger flow experiences when shopping online.

### **2.2. Utilitarian and Hedonic**

One of the most important marketing goals is to get good experience and customer loyalty [21]. Furthermore, Gabisch (2011) shows that optimal experience on brand websites is a key factor in gaining loyalty [22]. Customers experience online flow significantly leading to increased loyalty. Flow is a pleasant experience that people feel when acting with total involvement [23].

Basically, customers look for utilitarian benefits and hedonic benefits on every e-commerce. Comparing product prices and quality is one example of seeking utilitarian benefits, while looking for a visually appealing website design because it provides enjoyment of online shopping experiences is a range of hedonic benefits [24] [25] [26]. This proves that there are consumers who are looking for "full experience" [27]. These consumers are people who only enjoy the observation process to get the utilitarian benefits and hedonic benefits. To attract the attention of these consumers, e-commerce websites have to build a pleasant online shopping experience. Shopping is not only a process of getting goods but also for fun, they feel happy and comfortable when shopping. Blakney and Sekely [28] found that the level of intrinsic enjoyment of shopping experience influences consumer behavior. The pleasure of shopping online is closely related to the higher intention to revisit the website [29].

Growing flow experience is the goal of the utilitarian and hedonic features of a website [30]. Most hedonic site features are not directly related to purchases, but rather affect customer satisfaction and create flow [31]. Attractive designs, entertaining website features, and gamification are the characteristics of the hedonic characteristics of the website and can create flow experiences. Therefore, the following hypothesis is proposed:

H1. The greater the hedonic feature of an e-commerce website, the greater the positive online experience (flow)

Choi et al. (2007) found that utilitarian features stimulated a flow experience [32]. Flow stimulates web evaluations that benefit from utilitarian aspects [33]. Some previous studies also tended to support this theory, such as a greater user perception of utilitarian features in the online environment in accordance with greater opportunities to be achieved flowing. Therefore, the following hypothesis is proposed:

H2. The greater the utilitarian features of e-commerce websites, the greater the positive online experience (flow)

### **2.3. Online Branding and Flow Experience**

A brand can be defined as a set of tangible and intangible attributes designed to create awareness and identity, and to build the reputation of a product, service, person, place, or organization. Originally, brand equity referred to the asset valuation of a brand

for accounting purposes [34]. Brand equity was construed to be the asset valuation of a brand [35].

Burmann et al. (2009) defined brand equity as present and future valorization derived from the internal and external brand-induced performance [36]. They further explain, this definition includes three major categories: psychological brand equity, behavioral brand equity and financial brand equity. The conceptual proximity of the first two categories leads to a comprehensive and widely accepted term: brand strength. From this perspective, brand strength is merely used as a substitute term for either psychological brand equity or behavioral brand equity.

Through involvement in flow experience, the E-Commerce environment offers new opportunities to create and maintain brand equity [37]. Based on previous research, non-attribute product factors are more influential than product and experience in a virtual environment positively influences brand equity on its own product features. Brand equity can be positively influenced by hotel websites that offer opportunities for customers to be involved in the flow experience.

Based on brand equity theory, consumers like to associate themselves with products and services with a strong brand [38]. Brand equity influences attitudes and behaviors which attracts customers for repurchasing the product. Furthermore, brand loyalty intention is influenced by brand equity in the service industry [39]. Previous research has claimed that brand equity directly influences brand loyalty [40]. Recent studies found that flow experience influences brand equity in virtual contexts [41]. Founded on the aforementioned arguments, it was proposed:

H3. The greater the hedonic features of the e-commerce website, the greater brand equity

## 2.4. Trust

A trustworthy website is very important for the success of the business in attracting the attention of customers, if the website is not trustworthy then customers will hesitate to use it [42]. In the business area, trust is one important factor especially in e-commerce. In contrast to traditional businesses where customers can directly see and inspect goods directly, in online businesses customers cannot check directly and only rely on information and images available on the website. Uncertainty and risk from online shopping can be reduced by the trust that creates security for customers [43].

Based on research conducted by Roy et al. (2001), an increase in ease of use and website utility increases the trust of customers [44]. This is also supported by Cyr (2008), he found that the utilitarian features of the website have a direct impact on trust [45]. The quality of other features related to utilitarian, such as navigation and functionality, has a positive impact on trust. Therefore, it is proposed:

H4. The greater the utilitarian features of e-commerce websites, the greater the trust in e-commerce websites.

## 2.5. Positive Experiences

A person's positive experience will shape their perception of the website. In a virtual context, there is a positive relationship between flow experience and brand equity [46]. Park et al. (2008) also support this theory by stating that positive emotions when using a website are closely related to brand equity [47]. Therefore, it is proposed:

H5. The greater the positive online experience (stream), the greater the brand equity

In e-commerce websites, flow experience is one indicator of customers to consider the use of the website. An unpleasant experience when using a website can reduce the level of trust in the website. Therefore, flow experience can reduce unwanted risks such as reduced level of customer trust [48]. Therefore, it is proposed:

H6. The greater the positive online experience (current), the greater the trust in e-commerce websites

According to Smith and Sivakumar (2004), consumer shopping behavior is also influenced by Flow experience [49]. Flow experience can increase customer interest in repurchasing and visiting websites that they feel comfortable with. Customer loyalty can be built by improving the customer experience while browsing the website. This shows that the emotional relationship that is formed from interactions between customers and the online environment can increase loyalty, such as the intention to play online games and visit e-commerce [50]. Therefore, it is proposed:

H7. The greater the positive online experience (current), the greater the loyalty to the e-commerce website

## 2.6. Website Characteristics, Brand Equity, Trust, and Loyalty

Brand equity is a set of a brand asset, liability linked to a brand and give added value to the product which helps customers to interpret information about the brand [51]. A brand can be linked to a name, symbol, image, personality of the product. Customers are more likely to consider having a brand they know than they know less. Nam et al. (2011) shows that there is a positive relationship between brand equity and loyalty [52]. Therefore, it is proposed:

H8. The greater the brand equity, the greater the loyalty to the e-commerce website.

The customer's intention to repurchase or use the services of a product is based on their level of trust in the product [53]. If a product is judged to be unreliable, customers tend not to use the product anymore, this also applies in the case of online shopping. In the case of a website, if customers already trust an online shopping website then they tend to visit the website again, both to make purchases and just to look around [54]. Therefore, it is proposed:

H9. The greater the trust in e-commerce websites, the greater the loyalty of e-commerce websites

The appearance of the website on e-commerce affects the level of customer trust [55]. Web site display characteristics such as graphic design, layout, color selection, and other display features affect customer trust. In a survey conducted by Gregg & Walczak (2010) on eBay users [56], there was a positive relationship between website quality and loyalty. Therefore, it is proposed:

H10. The greater the hedonic features of e-commerce websites, the greater the trust in e-commerce websites

Brand equity is a representation of the appearance of a brand. In the context of e-commerce websites, brand equity is closely related to the utilitarian features inherent in the website [57]. E-commerce centered on the strength of its website makes utilitarian features play an important role in showing the product image to customers. Therefore, it is proposed:

H11. The greater the utilitarian features of e-commerce websites, the greater the brand equity

### 3. METHOD

The type of research used is explanatory with a quantitative approach. According to Sugiyono (2016), the explanatory research is a research that explains the causal relationship between the variables that influence the hypothesis [58]. This research uses primary data. Primary data is the result of tabulation of the respondents' answers. The data is collected from 129 Muslim millennials. Primary data were obtained using a questionnaire instrument.

The questionnaire in this study used closed and open questions. Data were analyzed and tested using multivariate Structural Equation Modeling (SEM) techniques using the LISREL 8.8 Structural Equation Modeling (SEM) program, which is a statistical technique that is able to analyze latent variables,

observable variables, and measurement errors directly. SEM is able to analyze the relationship between one latent variable with another latent variable [59], and also to find out the magnitude of measurement errors Wijanto (2008). it can be concluded that SEM is a statistical technique that can analyze latent variables and find out the magnitude of measurement.

### 4. RESULT AND DISCUSSIONS

**Table 1. Characteristic of Respondent**

Characteristic		Presentation
Gender	Women	56%
	Man	44%
Age	20-25	100%
Type of work	Student	52%
Salary/income	> Rp 5,000,000.00	38%

**Table 2. Construct & Measurement Items**

Construct	Question items	Origin
Flow	FLO_1: I experienced flow the last time that I booked my hotel room on this website.	Huang (2005); Bilgihan et al. (2015)
	FLO_2: In general, I experience flow when I book my hotel room on this website.	
	FLO_3: Most of the time when I book my hotel room on this website, I feel that I am experiencing flow.	
	FLO_4: The last time that I booked my hotel room on this website, I was fully engaged	
Hedonic Features	HEDO_1: Weary e Entertaining	Huang (2003); Bilgihan et al. (2016)
	HEDO_2: Disagreeable e Agreeable	
	HEDO_3: Dull e Exciting	
	HEDO_4: Not Delightful e Delightful	
	HEDO_5: Not Thrilling e Thrilling	
Utilitarian Features	UTIL_1: Chaotic e Ordered	Huang (2003) ; Bilgihan et al. (2016)
	UTIL_2: Unreliable e Reliable	
	UTIL_3: Wrong e Correct	
	UTIL_4: Not Functional e Functional	
Trust	TRU_1: I trust this hotel website keeps my best interests in mind	Morgan and Hunt (1994); Bilgihan et al. (2016)
	TRU_2: This hotel website will always be honest with me	
	TRU_3: I believe in the information that this hotel website provides	
	TRU_4: This hotel website is genuinely concerned about its customers	
Brand Equity	BE_1: It makes sense to book hotel rooms from this website instead of any other websites, even if they are the same.	Yoo, Donthu, and Lee (2001) ; Bilgihan et al. (2016)
	BE_2: Even if another hotel website has same features as this website, I would prefer to book through this website.	
	BE_3: If there is another brand as good as this website, I prefer to book through this website.	
	BE_4: If another hotel website is not different from X in any way, it seems smarter to book through X	
e-Loyalty	LOY_1: As long as the present service continues, I doubt that I would switch websites.	Chang and Chen (2009); Lin and Wang (2006) ; Bilgihan et al. (2016)
	LOY_2: To me this site is the best hotel website to do business with.	
	LOY_3: I believe that this is my favorite hotel website.	

**Table 3. Reliability test**

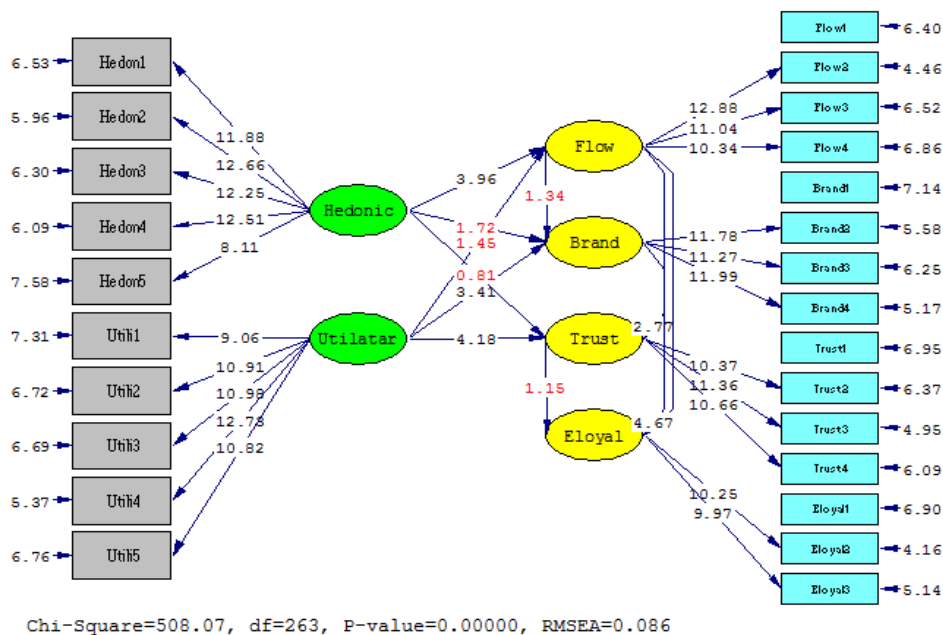
No.	Variable	Cronbach's Alpha ( $\alpha$ )	Number of Items
1	Flow	0.78	4
2	Hedonic Features	0.86	5
3	Utilitarian Features	0.77	4
4	Trust	0.85	4

5	Brand Equity	0.76	4
6	e-Loyalty	0.72	3

**Table 4. Convergent and Discriminant Validity**

	FLO	HEDO	UTIL	TRU	BE	LOY
FLO	1	0.246***	0.036	0.159**	0.012	0.091
HEDO	0.246***	1	0.045	0.305***	0.181**	0.254***
UTIL	0.036	0.045	1	0.173*	0.026	0.137*
TRU	0.159**	0.305***	0.173*	1	0.167*	0.277***
BE	0.012	0.181**	0.026	0.167*	1	0.165*
LOY	0.091	0.254***	0.137*	0.277***	0.165*	1
Max r	<b>0.246***</b>	<b>0.305***</b>	<b>0.137*</b>	<b>0.305***</b>	<b>0.181**</b>	<b>0.254***</b>

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$



**Figure 1. Model SEM T-Values Information.**

Based on the table 1, it can be seen that the results of the most GOF measurements are good fit. It can be concluded that the GoF measurement fit of the measurement model generally is good.

Based on the processed data from the Hedonic variabel t-value to Flow is 3.96. Then the Utilitarian variable t-value is Brand with the number 3.41. Then the t-value variable Utilitarian with Trust shows 4.18. The Flow variabel t-value to Trust is 2.77. Then the Flow variable t-value is E-loyalty with the number 4.67. Then the t-value variable Brand with E-loyalty shows 2.77. This shows that the t-value  $>$  t-table (1.96), meaning that the Hedonic of Flow has a significant influence but the Utilitarian to Flow is 1.45 has a not significant influence. Then Hedonic variable to Brand is 1.72 and Flow variable to Brand is 1.34. From these results indicate an insignificant relationship. However, when the Utilitarian variable to the Brand has a significant relationship. The hedonic to trust variable shows the value of 0.81 which indicates no significant

relationship between these variables. Furthermore, the utilitarian and flow variables towards trust indicate a significant relationship. The flow and brand variables on E-loyalty have a significant relationship, but the trust variable on E-loyalty does not have a significant relationship because it has a value of 1.15 which is below the value of 1.96.

From the above results, it can be concluded that to create flow on the webstore should pay more attention and improve on hedonic variables than on utilitarian variables. When viewed from the hedonic variable, the webstore provider must improve on how the webstore can be pleasing to customers who come to visit the webstore, because it can be seen in the picture of the t value above that hedonics or fun has a high value of 12.66 compared to other indicators when creating hedonic to the customer. This finding is in accordance with Bilgihan, et al. (2014), Bilgihan & Bujisic (2015), and Loiacono et al. (2002) [60] [61] [62].



In improving the brand on the webstore, it must improve and innovate in utilitarian, which must provide benefits and in its use, must be easily felt for Muslim millennials. Basically, the millennial generation wants easy access and functions that are in line with expectations [63]. When seen from the utilitarian variables more prominent on accurate indicators with a value of 12.78, the webstore must further improve and maintain the accuracy of the available facilities.

Creating trust in the webstore according to the results above must pay more attention to utilitarian and flow variables in the facilities provided. When viewed from the hedonic variable with a value of 0.81 the trust variable shows no significant relationship. It can be concluded to increase the trust of Muslim millennials in the webstore it must focus more on utilitarian and flow variables.

Furthermore, the trust variable does not have a significant relationship on the variable E loyalty. It can be seen in the figure above with the number 1.15. This is due to the low level of trust that millennials have. they are not easy to believe in a product and tend to have a low level of loyalty. If to increase E loyalty, the webstore must focus more on increasing and more attention to the variable flow and brand.

**Table 5. Goodness of Fit Estimation results**

GoF	Fit Level Target	Estimation Results	Fit Level
<b>X2 (chi-square)</b>	$P \geq 0,50$	508,070	<i>Good fit</i>
<b>RMSEA</b>	$RMSEA \leq 0,08$	0,0857	<i>Marginal Fit</i>
<b>GFI</b>	$GFI > 0,80$	0,758	<i>Bad Fit</i>
<b>AGFI</b>	$AGF \geq 0,90$	0,700	<i>Good fit</i>
<b>TLI (NNFI)</b>	$TLI > 0,90$	0,969	<i>Good fit</i>
<b>CFI</b>	$CFI > 0,90$	0,972	<i>Good fit</i>
<b>NFI</b>	$NFI > 0,90$	0,946	<i>Good fit</i>
<b>IFI</b>	$IFI > 0,90$	0,973	<i>Good fit</i>
<b>RFI</b>	$RFI > 0,90$	0,938	<i>Good fit</i>

**Table 6. Hypothesis Analysis**

Hypothesis	Statement	T-value	Result
H1	Hedonic to Flow	3.96	Significant
H2	Hedonic to Brand	1.72	Not significant
H3	Hedonic to Trust	0.81	Not significant
H4	Utilitarian to Flow	1.45	Not significant
H5	Utilitarian to Brand	3.41	Significant
H6	Utilitarian to Trust	4.18	Significant
H7	Flow to Brand	1.34	Not significant
H8	Flow to Trust	2.77	Significant
H9	Flow to E-loyalty	4.67	Significant
H10	Brand to E-loyalty	2.77	Significant
H11	Trust to E-loyalty	1.15	Not significant

## 5. CONCLUSIONS

From the results of this study, it can be seen that E loyalty of millennial Muslim customers on webstore in Indonesia is not only from flow, brand and trust, but there are other variables that can affect E loyalty, among others, can be from E service quality and customer satisfaction. So it can be concluded that there is a significant influence between the variable flow and brand to create E loyalty to customers, but the trust variable does not have a significant effect on customer loyalty. Furthermore, the trust variable is not only from the utilitarian and flow variables that can influence it, but it can be from the influence of product quality and can also be from the brand personality of the seller on the webstore. So on the brand variable not only from the utilitarian that can influence, but can be in terms of promotion and price on the products offered on the webstore. Finally, the flow variable is not only from the hedonic factor that has a significant relationship, but to create flow can be able to provide fast delivery services and guarantee goods to their destination safely. From this research, hopefully it can provide an overview and information in increasing the number of sales and income for business people, especially for business people who use webstore to introduce products to customers.

## 6. ACKNOWLEDGMENTS

This paper is supported the Indonesia Endowment Fund for Education (LPDP).

## 7. REFERENCES

- [1] Raines, Clare. 2002. *Connecting Generations: The Sourcebook for A New Workplace*. California, Crisp Publications.
- [2] Tripadvisor. 2015. *How to attract the Gen Y hotel guest*. <http://tripadvisor.com/TripAdvisorInsights/n2038/how-attract-gen-y-hotel-guest>
- [3] Ali, H. and Purwandi, L. 2017. *The Urban Middleclass millennials Indonesia: Financial and online behavior*. Jakarta, Alvares Research Center.
- [4] Maulina, Erna and Hendriyani, Chandra. 2018. Model to responding millennial customer buying behavior at PT Rabbani Hypno Fashion . *Jurnal Pemikiran dan Penelitian Administrasi Bisnis dan Kewirausahaan*. 3, 3 (Des. 2018), 219-227. DOI= <https://doi.org/10.24198/adbispreneur.v3i3.19288>.
- [5] Parment, A. 2013. Generation Y vs. Baby Boomers: shopping behavior, buyer involvement and implications for retailing. *Journal of Retailing and Consumer Services*, 20, 2, 189-199. DOI= <https://10.1016/j.jretconser.2012.12.001>
- [6] Nusair, K., Bilgihan, A., Okumus, F., & Cobanoglu, C. 2013. Generation Y travelers' commitment to online social network websites. *Tourism Management*, 35, 13-22. DOI: <https://doi.org/10.1016/j.tourman.2012.05.005>
- [7] Kim, D., & Ammeter, A. P. 2008. Examining Shifts in online purchasing behavior: decoding the net generation. *Academy of Information and Management Sciences*, 12, 1, 7-12. DOI: <https://doi.org/10.5392/IJoC.2008.4.2.007>
- [8] O'Donnell, J. 2006. Gen Y sits on top of consumer food chain; they're savvy shoppers with money and influence. *USA Today*, 11, 3B.
- [9] Bilgihan, Anil. 2016. Gen Y customer loyalty in online shopping: An integrated model of trust, user experience and

- branding. *Computers in Human Behavior*, 61, 103-113. DOI: <https://10.1016/j.chb.2016.03.014>
- [10] Widiowati, Hari. 2019. Indonesia Jadi Negara dengan Pertumbuhan E-Commerce Tercepat di Dunia. *Katadata*. <https://databoks.katadata.co.id/datapublish/2019/04/25/indonesia-jadi-negara-dengan-pertumbuhan-e-commerce-tercepat-di-dunia>
- [11] BPS. 2017. *Statistik Indonesia Tahun 2017*. Jakarta Pusat, Badan Pusat Statistik.
- [12] APJII. 2017. *Info grafis Penetrasi dan Perilaku Pengguna Internet Indonesia*. <https://www.apjii.or.id/survei2017>.
- [13] Rizvi, S.A.R., Narayana, P.K., Sakti, A., Syarifuddin, F. 2019. Role of Islamic banks in Indonesian banking industry: an empirical exploration. *Pacific-Basin Finance Journal*, 53, 1, 1-10. DOI: <http://10.1016/j.pacfin.2019.02.002>
- [14] Meriac, J. P., Woehr, D. J., & Banister, C. 2010. Generational differences in work ethic: an examination of measurement equivalence across three cohorts. *Journal of Business and Psychology*, 25, 2, 315-324. DOI: <https://doi.org/10.1007/s10869-010-9164-7>
- [15] Dries, N., Pepermans, R., & De Kerpel, E. 2008. Exploring four generations' beliefs about career: is "satisfied" the new "successful"? *Journal of Managerial Psychology*, 23, 8, 907-928. DOI: <https://doi.org/10.1108/02683940810904394>
- [16] Kopperschmidt, B. R. 2000. Multigenerational employees: strategies for effective management. *Health Care Manager*, 19, 1, 65-76.
- [17] Lazarevic, V. 2012. Encouraging brand loyalty in fickle generation Y consumers. *Young Consumers*, 13, 1, 45-61. DOI: <https://doi.org/10.1108/17473611211203939>
- [18] Lazarevic, V. 2012. Encouraging brand loyalty in fickle generation Y consumers. *Young Consumers*, 13, 1, 45-61. DOI: <https://doi.org/10.1108/17473611211203939>
- [19] Li, C., Xu, Y., Gill, A., Haider, Z. A., Wang, Y. 2019. Religious beliefs, socially responsible investment, and cost of debt: Evidence from entrepreneurial firms in India. *Emerging Markets Review*, 38, 1, 102-114. DOI: <https://doi.org/10.1016/j.ememar.2018.12.001>.
- [20] Li, C., Xu, Y., Gill, A., Haider, Z. A., Wang, Y. 2019. Religious beliefs, socially responsible investment, and cost of debt: Evidence from entrepreneurial firms in India. *Emerging Markets Review*, 38, 1, 102-114. DOI: <https://doi.org/10.1016/j.ememar.2018.12.001>.
- [21] Verhoef, P. C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M., & Schlesinger, L. A. 2009. Customer experience creation: determinants, dynamics and management strategies. *Journal of Retailing*, 85, 1, 31-41. DOI: <https://doi.org/10.1016/j.jretai.2008.11.001>
- [22] Gabisch, J. A. 2011. Virtual world brand experience and its impact on real world purchasing behavior. *Journal of Brand Management*, 19, 1, 18-32. DOI: <https://doi.org/10.1057/bm.2011.29>
- [23] Huang, M. H. 2003. Designing website attributes to induce experiential encounters. *Computers in Human Behavior*, 19, 4, 425-442. DOI: [https://doi.org/10.1016/S0747-5632\(02\)00080-8](https://doi.org/10.1016/S0747-5632(02)00080-8)
- [24] Bilgihan, A., Okumus, F., Nusair, K., & Bujisic, M. 2014. Online experiences: flow theory, measuring online customer experience in e-commerce and managerial implications for the lodging industry. *Information Technology & Tourism*, 14, 1, 49-71. DOI: <https://doi.org/10.1007/s40558-013-0003-3>
- [25] Bilgihan, A., & Bujisic, M. 2015. The effect of website features in online relationship marketing: a case of online hotel booking. *Electronic Commerce Research and Applications*, 14, 4, 222-232. DOI: <https://doi.org/10.1016/j.elerap.2014.09.001>
- [26] Loiacono, E. T., Watson, R. T., & Goodhue, D. L. 2002. WebQual: a measure of website quality. In *AMA Winter conference*, Austin, TX.
- [27] Loiacono, E. T., Watson, R. T., & Goodhue, D. L. 2002. WebQual: a measure of website quality. In *AMA Winter conference*, Austin, TX.
- [28] Blakney, V. L., & Sekely, W. 1994. Retail attributes: influence on shopping mode choice behavior. *Journal of Managerial Issues*, 6, 1, 101-118.
- [29] Koufaris, M., & Hampton-Sosa, W. 2004. The development of initial trust in an online company by new customers. *Information & Management*, 41, 3, 377-397. DOI: <https://doi.org/10.1016/j.im.2003.08.004>
- [30] Bilgihan, A., Okumus, F., Nusair, K., & Bujisic, M. 2014. Online experiences: flow theory, measuring online customer experience in e-commerce and managerial implications for the lodging industry. *Information Technology & Tourism*, 14, 1, 49-71. DOI: <https://doi.org/10.1007/s40558-013-0003-3>
- [31] Cai, S., & Xu, Y. 2011. Designing not just for pleasure: effects of Web site aesthetics on consumer shopping value. *International Journal of Electronic Commerce*, 15, 4, 159-188. DOI: <https://doi.org/10.2753/JEC1086-4415150405>
- [32] Choi, D. H., Kim, J., & Kim, S. H. 2007. ERP training with a web-based electronic learning system: the flow theory perspective. *International Journal of Human-Computer Studies*, 65, 3, 223-243. DOI: <https://doi.org/10.1016/j.ijhcs.2006.10.002>
- [33] Huang, M. H. 2003. Designing website attributes to induce experiential encounters. *Computers in Human Behavior*, 19, 4, 425-442. DOI: [https://doi.org/10.1016/S0747-5632\(02\)00080-8](https://doi.org/10.1016/S0747-5632(02)00080-8)
- [34] Keller, K. L. 1993. Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57, 1, 1-22. DOI: <https://doi.org/10.1177/002224299305700101>
- [35] Bilgihan, A., Okumus, F., Nusair, K., & Bujisic, M. 2014. Online experiences: flow theory, measuring online customer experience in e-commerce and managerial implications for the lodging industry. *Information Technology & Tourism*, 14, 1, 49-71. DOI: <https://doi.org/10.1007/s40558-013-0003-3>
- [36] Burmann, C., Jost-Ben, M., Riley, N. 2009. Towards an identity-based brand equity model. *Journal of Business Research*, 62, 3, 390-397. DOI: <https://doi.org/10.1016/j.jbusres.2008.06.009>
- [37] Park, S. R., Nah, F., DeWester, D., Eschenbrenner, B., & Jeon, S. 2008. Virtual world affordances: enhancing brand value. *Journal of Virtual Worlds Research*, 1, 2. DOI: <http://doi.org/10.4101/jvwr.v1i2.350>.
- [38] Allen, D. G., Mahto, R. V., & Otondo, R. F. 2007. Web-based recruitment: effects of information, organizational

- brand, and attitudes toward a website on applicant attraction. *Journal of Applied Psychology*, 92, 6, 1696-1708. DOI: <https://doi.org/10.1037/0021-9010.92.6.1696>
- [39] Taylor, S. A., Hunter, G. L., & Lindberg, D. L. 2007. Understanding (customer-based) brand equity in financial services. *Journal of Services Marketing*, 21, 4, 241-252. DOI: <https://doi.org/10.1108/08876040710758540>
- [40] Nam, J., Ekinci, Y., & Whyatt, G. 2011. Brand equity, brand loyalty and consumer satisfaction. *Annals of Tourism Research*, 38, 3, 1009-1030. DOI: <https://doi.org/10.1016/j.annals.2011.01.015>
- [41] Nah, F. F. H., Eschenbrenner, B., DeWester, D., & Park, S. R. 2010. Impact of flow and brand equity in 3D virtual worlds. *Journal of Database Management (JDM)*, 21,3, 69-89. DOI: <http://10.4018/jdm.2010070103>
- [42] McKnight, D. H., & Chervany, N. L. 2001. What trust means in e-commerce customer relationships: an interdisciplinary conceptual typology. *International Journal of Electronic Commerce*, 6, 2, 35-59. DOI: <https://doi.org/10.1080/10864415.2001.11044235>
- [43] Suh, B., & Han, I. 2003. Effect of trust on customer acceptance of Internet banking. *Electronic Commerce Research and Applications*, 1,3, 247-263. DOI: [https://doi.org/10.1016/S1567-4223\(02\)00017-0](https://doi.org/10.1016/S1567-4223(02)00017-0)
- [44] Roy, M. C., Dewit, O., & Aubert, B. A. 2001. The impact of interface usability on trust in web retailers. *Internet Research*, 11,5, 388-398. DOI: <http://10.1108/10662240110410165>
- [45] Cyr, D. 2008. Modeling website design across cultures: relationships to trust, satisfaction, and e-loyalty. *Journal of Management Information Systems*, 24,4, 47-72. DOI: <https://doi.org/10.2753/MIS0742-122240402>
- [46] Nah, F. F. H., Eschenbrenner, B., DeWester, D., & Park, S. R. 2010. Impact of flow and brand equity in 3D virtual worlds. *Journal of Database Management (JDM)*, 21,3, 69-89. DOI: <http://10.4018/jdm.2010070103>
- [47] Park, S. R., Nah, F., DeWester, D., Eschenbrenner, B., & Jeon, S. 2008. Virtual world affordances: enhancing brand value. *Journal of Virtual Worlds Research*, 1,2. DOI: <http://doi.org/10.4101/jvwr.v1i2.350>.
- [48] Bilgihan, A., & Bujisic, M. 2015. The effect of website features in online relationship marketing: a case of online hotel booking. *Electronic Commerce Research and Applications*, 14, 4, 222-232. DOI: <https://doi.org/10.1016/j.elerap.2014.09.001>
- [49] Smith, D. N., & Sivakumar, K. 2004. Flow and Internet shopping behavior: a conceptual model and research propositions. *Journal of Business Research*, 57(10), 1199-1208. DOI: [https://doi.org/10.1016/S0148-2963\(02\)00330-2](https://doi.org/10.1016/S0148-2963(02)00330-2)
- [50] Hsu, C. L., & Lu, H. P. 2004. Why do people play on-line games? An extended TAM with social influences and flow experience. *Information & Management*, 41, 7, 853-856. DOI: <https://doi.org/10.1016/j.im.2003.08.014>
- [51] Bilgihan, A., & Bujisic, M. 2015. The effect of website features in online relationship marketing: a case of online hotel booking. *Electronic Commerce Research and Applications*, 14, 4, 222-232. DOI: <https://doi.org/10.1016/j.elerap.2014.09.001>
- [52] Nam, J., Ekinci, Y., & Whyatt, G. 2011. Brand equity, brand loyalty and consumer satisfaction. *Annals of Tourism Research*, 38, 3, 1009-1030. DOI: <https://doi.org/10.1016/j.annals.2011.01.015>
- [53] Bilgihan, A., & Bujisic, M. 2015. The effect of website features in online relationship marketing: a case of online hotel booking. *Electronic Commerce Research and Applications*, 14, 4, 222-232. DOI: <https://doi.org/10.1016/j.elerap.2014.09.001>
- [54] Kim, H. W., Xu, Y., & Koh, J. 2004. A comparison of online trust building factors between potential customers and repeat customers. *Journal of the Association for Information Systems*, 5,10, 392-420. DOI: <https://doi.org/10.17705/1jais.00056>
- [55] Sillence, E., Briggs, P., Harris, P., & Fishwick, L. 2007. Health websites that people can trust: the case of hypertension. *Interacting with Computers*, 19, 1, 32-42. DOI: <https://doi.org/10.1016/j.intcom.2006.07.009>
- [56] Gregg, D. G., & Walczak, S. 2010. The relationship between website quality, trust and price premiums at online auctions. *Electronic Commerce Research*, 10, 1, 1-25. DOI: <https://doi.org/10.1007/s10660-010-9044-2>
- [57] Argyriou, E., Kitchen, P. J., & Melewar, T. C. 2006. The relationship between corporate websites and brand equity: a conceptual framework and research agenda. *International Journal of Market Research*, 48(5), 575-599. DOI: <https://doi.org/10.1177/147078530604800507>
- [58] Sugiyono. 2016. *Metode Penelitian Kuantitatif, Kualitatif, dan Kombinasi (Mixed Methods)*. Bandung, Penerbit Alfabeta.
- [59] Wijanto. 2008. *Structural Modeling dengan LISREL 8.8*. Jakarta, Graha Ilmu.
- [60] Bilgihan, A., Okumus, F., Nusair, K., & Bujisic, M. 2014. Online experiences: flow theory, measuring online customer experience in e-commerce and managerial implications for the lodging industry. *Information Technology & Tourism*, 14, 1, 49-71. DOI: <https://doi.org/10.1007/s40558-013-0003-3>
- [61] Bilgihan, A., & Bujisic, M. 2015. The effect of website features in online relationship marketing: a case of online hotel booking. *Electronic Commerce Research and Applications*, 14, 4, 222-232. DOI: <https://doi.org/10.1016/j.elerap.2014.09.001>
- [62] Loiacono, E. T., Watson, R. T., & Goodhue, D. L. 2002. WebQual: a measure of website quality. *In AMA Winter conference*, Austin, TX.
- [63] Huang, Y. C., Backman, S., & Backman, K. 2012. Exploring the impacts of involvement and flow experiences in second life on people's travel intentions. *Journal of Hospitality and Tourism Technology*, 3, 1, 4-23. DOI: <https://doi.org/10.1108/17579881211206507>