

Retraction

Retracted: Effect of Using Modern Banking Services on Customer Inspiration: Statistical Analysis

Advances in Materials Science and Engineering

Received 26 December 2023; Accepted 26 December 2023; Published 29 December 2023

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This article has been retracted by Hindawi, as publisher, following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of systematic manipulation of the publication and peer-review process. We cannot, therefore, vouch for the reliability or integrity of this article.

Please note that this notice is intended solely to alert readers that the peer-review process of this article has been compromised.

Wiley and Hindawi regret that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

- [1] M. I. Jassem, R. A. Rahman, and A. M. Ibrahim, "Effect of Using Modern Banking Services on Customer Inspiration: Statistical Analysis," *Advances in Materials Science and Engineering*, vol. 2022, Article ID 7130559, 6 pages, 2022.

Research Article

Effect of Using Modern Banking Services on Customer Inspiration: Statistical Analysis

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Received 7 January 2022; Revised 19 January 2022; Accepted 31 January 2022; Published 17 February 2022

Academic Editor: Palanivel Velmurugan

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Customer inspiration has recently gained much interest in marketing theory due to its consistent results as a customer management technique. Herein, the relationship between banking services and customer inspiration through the role of gender moderation is presented. Structural equation modelling through partial least squares modelling (PLS-SEM) has been employed to determine the nature of relationships between variables. Six hundred and forty questionnaires are distributed to branches of ten banks distributed in nine major cities in Iraq, including the capital, Baghdad. Data collection took 62 days; 394 complete answers (i.e., 61.56%) are collected. The approximate viability was evaluated by analyzing the average values of the extracted AVE contrast, where the average AVE was greater than 0.5 for all formulations. The findings show that banking services have a significant positive effect on inspiration and that gender has a positive role in mediating the relationship as a moderation variable.

1. Introduction

The world is changing in terms of doing work in institutions and businesses. Internet, smartphones, and applications and social media provided organizations with the opportunity to easily communicate directly with their clients and establish a close relationship with them [1]. Most of the banks in recent years have become providing their services via the Internet, where their transactions are completed with one click on the mobile application, which led to the development of these banks and the growth of their revenues [2]. Modern banking services have changed the work of banks in a very large and accelerated manner, as communication and relations between customers led and financial institutions to understand and know the ideas and aspirations of customers, which imposed a great competition between financial institutions in innovation, development, and service provision [3].

Since our study on Iraq, we must talk about the poor services that bank customers suffer in Iraq and the delay in

keeping pace with the development taking place in the world, which made it difficult to compete and maintain customers [4]. It has become necessary to evaluate the performance of these banks through their customers and to know their strengths and weaknesses in order to improve their performance, survival, continuity, and innovation. Some research has dealt with the concept of inspiration and its impact on the marketing of services in institutions, as the study of Oleynick.

Oleynick et al. [5] indicated that inspiration is a motivational state for customers through which ideas are transformed into products and solutions that benefit organizations and societies. Böttger et al. [6] confirmed through field experience and experimentation the role of inspiration in influencing service marketing as a form of individual marketing through the analysis of individual lifestyle marketing on click rates and customer buying behavior. In addition, patriarchy and gender inequality in the socio-economic framework are still evident in the Middle

East, where it has a significant impact on clients and their interaction with services [7, 8]. Therefore, it may be interesting to analyze the effects of a moderate gender variant, to provide additional understanding of how the model fits in with male and female clients for adopting banking services.

However, during the past decades that have passed, some studies and empirical research on marketing, customer relations, and management have introduced the concept of gender in several ways leading to a better understanding of the subjective reflection of the nature of gender in interaction with services [9]. Although previous studies on adoption of banking services received substantial empirical validation, most studies did not take into account the moderate variables that were discovered mainly in gender, age, and qualifications. On another aspect, Venkatesh et al. [10] showed that there is a significant influence of the gender variable in the use of banking services, including in particular electronic services, where customer satisfaction with services is necessary in the interrelated exchanges between stakeholders.

Van Tonder and Petzer [11] have shown that individual and renewed customer needs are met by new ideas that often derive from customer inspiration, and inspiration is an important factor in the innovation process. Oleynick et al. [5] and Buheji et al. [12] reported similar results about customer inspiration and stressed that inspiration is an important factor in the innovation process.

According to the above survey, a lot of studies employed the inspiration effect on the customer, but available data of the role of using modern banking services tests are very limited. Therefore, the main objective of this study is to investigate the role of using modern banking services. On customer inspiration and the role of gender as a broker in the Commercial Bank of Iraq, it is hoped that the results of this study will serve as a guide for financial institutions intending to develop a similar solution.

2. Theoretical Background

2.1. Customer Inspiration. Inspiration simply means the feeling of excitement and drive that you get from a person or thing that gives you new and original ideas. Clients are introduced to new and innovative ideas through the banking system at the heart of marketing, but surprisingly little is known about the state of customer inspiration and drive [6]. Therefore, customer inspiration as a temporary motivational condition, which is given to inspire a client, plays a role in capturing and harnessing ideas.

Therefore, different authors believe that inspiration is a motivational state that forces individuals to bring ideas to fruition and that this inspiration is important to the creative process, and the goal is to achieve a goal related to the consumption of a specific product or service. The use of inspiration has an important role in personal development and professional development for individuals. Inspiration plays a major role in changing or improving the individual characteristics and characteristics of people that lead to stability [12]. Customer inspiration is a temporary, motivational state that facilitates acceptance of market-stimulated ideas for the innate pursuit of a consumption goal.

2.2. Electronic Banking. Electronic banking services perform a bank transfer or any online service or transaction as if you did it personally within a bank branch [13]. For the success and effectiveness of the process of providing services to customers, banks have been able to use the Internet, as banks have created a ready-to-use banking system and created a customer database [14]. Electronic banking services have many important advantages, such as lower costs and ease of use through mobile devices and other electronic devices, and it is also possible to communicate easily with customers, motivate them, and find out what ideas they bring to help build new services that satisfy their desires. Internet banking is an integral part of the new development in information and communication technology, as the financial sector seizes the opportunity to grow beyond reasonable doubts, and the wave of transformation in information and communication technology has led to accurately providing banking services to customers in terms of ease and cost of transactions through banking services online [15].

By understanding the basic elements of online banking, scholars in the field of management emphasized the need to investigate the factors that encourage and discourage sponsorship of online banking service evaluation [16]. The banking sector in Iraq was developed and dealt with as an essential aspect of the advanced economy, as it provides electronic banking services to customers, and uses fast communications, information network security, and comprehensiveness, but it still suffers from many problems, for example, the need to be reviewed and communicated with customers to know their needs and aspirations to stimulate their ideas so that these banks can provide better services for continuity and success.

2.3. Mobile Banking Services. Banks have recognized the importance of financial applications in gaining a competitive advantage and establishing effective relationship and communication management with customers [17]. When banks started offering services via mobile phone, customer usage rates were very low, which led to administrative and technical changes which aimed at encouraging customers to switch to this technology.

Efforts to enhance transaction processing along with the development of mobile devices as well as the international economic transformations that have occurred are among the factors that have led to the rapid adoption of this important technology in the banking sector [18]. After the development of these services, it became possible for customers to access their financial resources remotely with the help of mobile devices [19]. Mobile/phone use in large numbers has become a beloved treasure for many users who are encouraging innovation in mobile banking. When banks introduce new services through mobile banking, they are able to attract new customers as well as retain existing ones [20]. The ability to communicate instantly with customers helps solve complaints and reduce them in general. Four factors play a vital role when it comes to mobile banking: ease of navigation, level of personalization, quality of information, and rewards.

Gender constitutes most of the widely recognized and investigated individual difference variables [21]. Some recent studies indicated the important role that gender plays in choosing the use of modern technology, and this is to find differences in decision-making between men and women [22]. Also, Chen and Macredie [23], conducted on online services, found that they differ in terms of usage patterns and preferring specific applications different behaviors and patterns, as well as different perceptions and attitudes towards web-based interaction. It can be argued that individual motivations in using technology are dependent on gender. In addition, men and women have different structures of needs, and their ratio varies according to the desired needs, while satisfying these needs can lead to positive psychological responses such as a feeling of contentment, which leads to gender playing a large role in the relationship between different needs and thus will reflect users' perceptions of benefits [24]. The results of some studies on the use of technology around gender show that men have more perceptions of the benefit in decisions to use technology.

Scientists always indicate, when studying gender, that men are more pragmatic [10]. They are task-oriented and highly motivated by productivity or task-related factors (such as utility) of women; hence, it must be verified which many of the traditional techniques used in the workplace are designed to be "practical" and task-oriented. They are useful if they help enhance user productivity. Zhou et al. [25] have also provided some evidence that men are less motivated by expediency and tendencies to use the Internet and interact with them than women. This required an expansion of the literature on gender in the use of the Internet.

3. Research Model and Hypotheses

Based on the literature review, it can propose hypotheses intended to validate our study, as shown in Figure 1. Accordingly, these Hypothesis are as follows:

H1 : there is a significant and positive impact of mobile banking on customer inspiration in Iraqi commercial banks

H2 : there is an important and positive impact of electronic banking services on inspiring customers in Iraqi commercial banks

H3 : gender moderates the impact of mobile banking on customer inspiration in Iraqi commercial banks

H4 : gender moderates the effect of electronic banking services on inspiring customers in Iraqi commercial banks

4. Research Methods

This study analyzes an individual who is a customer who has received service from Iraqi commercial banks through mobile banking and electronic banking services. Six hundred and forty questionnaires were distributed to branches of ten banks distributed in nine major cities, including the capital, Baghdad. With permission taken from bank directors, the questionnaire was distributed at bank branch offices and

then collected after answering it from clients. Data collection took 62 days. On completion, 394 complete answers (61.56%) were collected. All variables were measured using a Likert scale from 1 to 5, where 1 = very dissatisfied up to 5 = very satisfied. Hypothesis testing was performed using the partial least squares structural equation model (PLS-SEM), chosen for its ability to analyze on small sample sizes Wang and Yang (2016) [29]. It can also work better if it has a predictive goal, for easy navigation and features offered.

5. Analysis and Results

The number of forms distributed is 640 forms to the branches of ten banks distributed in nine major cities, including the capital, Baghdad. With permission taken from bank directors, the questionnaire was distributed to the bank's branch offices and was collected after answering it from customers. Data collection took 62 days. Upon completion, 394 full responses (61.56%) were collected. One case was deleted using box graph analysis and 6 additional cases were deleted using the Mahalanobis test, see Table 1. Of the 394 surveys, this resulted in 387 cases.

The analysis also showed the demographic characteristics of the gender variable to a difference between the numbers of male and female respondents, where the percentage of males was 56.33% more than the percentage of females 43.67%, as shown in Table 2.

5.1. Analyze the Measurement Model. The analysis of the measurement model will be a confirmatory assessment of reliability as well as convergence of validity and discriminatory validity [26]. The load factor value for the model variables was verified by measuring the model, where we can see through the analysis that the Cronbach Alpha CA values for the bank variable MB were 0.855, the value of EB0.757, and the CI variable was 0.811, where all the values were achieved and the lowest value was 0.7 according to Nounally and Bernstein [27]. The reliability of the individual component was also assessed by a process of examining the loading factors of both variables with their respective groups. All variants ranged from 0.715 for CI3 to MB2 versus 0.911, combined with a minimum value of 0.7 [26]. The reliability of the compound was checked. As for the final measure of model reliability, the result showed that all installations met the requirements of 0.7 [28]. Based on Table 2, the result showed that all installations met the requirements of 0.7 [28]. Thus, the reliability of the search model is acceptable, see Table 2. Table 2 shows the measurement of model reliability.

The other measure that should be taken is the convergent validity, which indicates the degree of agreement on measuring the same concept [29]. In this study, the approximate viability was evaluated by examining the average values of the extracted AVE contrast, where the average AVE for all formulations was higher than 0.5, as shown in Table 3. Thus, it fulfilled the required conditions, and this indicates a good sign of convergence in the scale. As for the final measurement of the research model, the discriminatory validity was

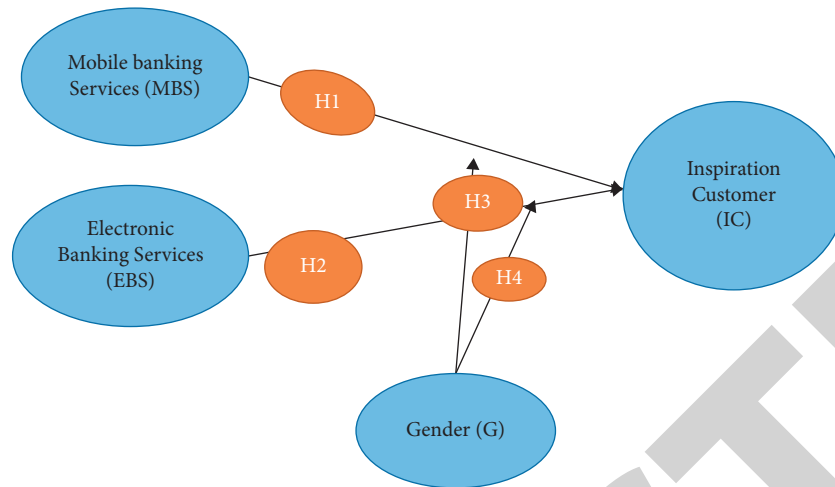


FIGURE 1: Research model.

TABLE 1: Mahalanobis outlier analysis.

Case	<i>p</i> value
1	0.0000034
2	0.0001115
3	0.0000554
4	0.0001466
5	0.0000647
6	0.0001459

TABLE 2: Demographic gender of respondents.

Variables	Categories	Frequency	Percent
Gender	Male	218	56.33
	Female	169	43.67

TABLE 3: Measurement model analysis.

Construct	Item	Loadings	AVE	CA	Cr
MB	MB1	0.905	0.654	0.855	0.924
	MB2	0.911			
	MB3	0.896			
EB	EB1	0.820	0.686	0.757	0.845
	EB2	0.771			
	EB3	0.735			
CI	CI1	0.856	0.683	0.811	0.843
	CI2	0.840			
	CI3	0.715			
	CI4	0.892			
	CI5	0.896			

TABLE 4: Fornell–Larckers criterion.

Construct	Mobile banking services	Electronic banking services	Customer inspiration
Mobile banking services	0.773	0.457	0.368
Electronic banking services	-	0.843	0.437
Customer inspiration	-	-	0.724

Bold values represent AVE (average variance extracted) validity and discriminant validity.

evaluated, and this is done by measuring the common variance between the structure and other combinations [30]. The calculation results also appeared in Table 3.

From Table 4, it was found that all square roots of the AVE are greater than the corresponding correlation coefficients with the other factors. These results indicate that all formulations satisfy the discriminant validity test. From these results, the results of the analysis indicate that our analyses satisfied both convergent validity and discriminant validity.

5.2. Structural Model Results. In this step, the structural model is evaluated where analyses are made on the hypotheses and the relationship of the structures based on the standard pathways examination, as shown in Table 5.

From Table 5 and Figure 2, the positive correlation of mobile bank services with inspired customers is shown with average effect size ($\beta = 0.456$, t -value = 6.763, and Cohen $f^2 = 0.546$). Hence, hypothesis 1 is supported. Electronic banking correlates very positively with customer inspiration with a small approximate effect size ($\beta = 0.321$, t -value = 3.756, and Cohen $f^2 = 0.179$). Therefore, hypothesis 2 is

supported. Mobile bank services have a high positive correlation with inspiring clients who engage in moderate intermediary gender with a small effect size ($\beta = 0.199$, t -value = 2.467, and Cohen $f^2 = 0.109$). Hence, hypothesis 3 is supported. Males were more satisfied with their money management services and more inspired than the females at their banks. There is no positive statistically significant relationship between electronic banking and customer inspiration in the presence of gender as a moderator with a very small effect size ($\beta = 0.067$, t -value = 1.001, and Cohen $f^2 = 0.001$). Therefore, hypothesis 4 is supported.

TABLE 5: Hypotheses testing results.

Hypothesis	Relationship	Std. beta	Cohen f2	t-value	Decision
H1	MBS -> IC	0.456	0.546	6.763	Supported
H1	EBS -> IC	0.321	0.179	3.756	Supported
Moderation (gender: male to female)					
H3	MBS * G -> IC	0.199	0.209	2.467	Supported
H4	EBS * G -> IC	0.067	0.001	0.001	Supported

The value 0.209 represents the effect size to measure the strength of the relationship between two structures on a numerical scale. MBS ->IC represents the relationship between mobile banking services and customer inspiration, where there is a relationship with an average effect size ($\beta = 0.456$, t-value = 6.763, Cohen $f^2 = 0.546$)

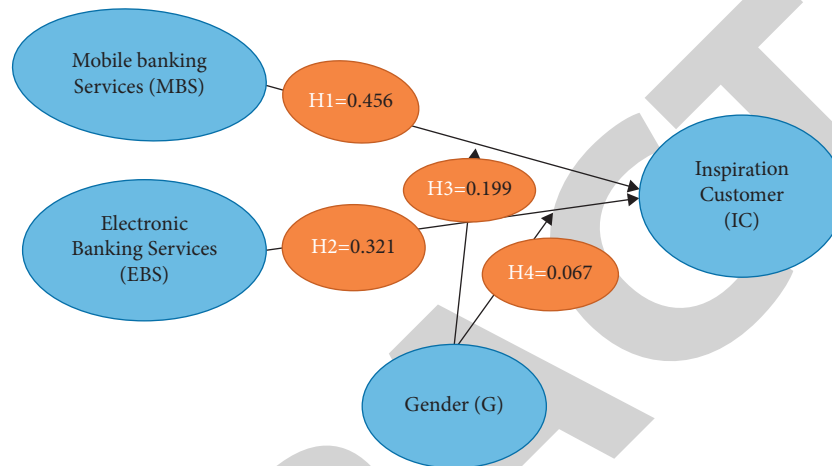


FIGURE 2: Structural model results.

6. Conclusion

In this study, it draws attention to inspiration as a new building in marketing services, enhancing customer behavior, strengthening customer loyalty, and an important factor for innovation. This paper illustrates the importance of inspiring customers through their communication to obtain information and new ideas that could be innovations in the development of banking services. The research dealt with a strategic model in the subject of inspiration and banking services, which integrates many variables that the researchers did not address before. The study concluded that there is a positive role for banking services in inspiring customers and a positive role for services with the presence of the influence of gender. On the contrary, the study indicates the role of inspiration in knowing the ideas and trends of customers which have a significant impact on innovation and the development of banking services.

Data Availability

The data underlying the results presented in the study are available within the article.

Conflicts of Interest

The authors declare that they have no conflicts of interest regarding the publication of this paper.

References

- [1] X. Yan, A. M. Shah, L. Zhai, S. Khan, and S. A. A. Shah, "Impact of mobile electronic word of mouth (EWOM) on consumers purchase intentions in the fast-causal restaurant industry in Indonesia," in *Proceedings of the 51st Hawaii International Conference on System Sciences*, Hilton Waikoloa Village, HA, USA, 2018 January.
- [2] E. Basci, "Which types of Internet banking service effects bank's income statement? an empirical study for Turkey between 2006 – 2013," *The Macrotheme Review a Multidisciplinary Journal of Global Macro Trends*, vol. 7, 2014.
- [3] B. B.-H. Chai, P. S. Tan, and T. S. Goh, "Banking services that influence the bank performance," *Procedia - Social and Behavioral Sciences*, vol. 224, pp. 401–407, 2016.
- [4] J. M. Leimeister, H. Österle, and S. Alter, "Digital services for consumers," *Electronic Markets*, vol. 24, no. 4, pp. 255–258, 2014.
- [5] V. C. Oleynick, T. M. Thrash, M. C. LeFew, E. G. Moldovan, and P. D. Kieffaber, "The scientific study of inspiration in the creative process: challenges and opportunities," *Frontiers in Human Neuroscience*, vol. 8, p. 436, 2014.
- [6] T. Böttger, T. Rudolph, H. Evanschitzky, and T. Pfrang, "Customer inspiration: conceptualization, scale development, and validation," *Journal of Marketing*, vol. 81, no. 6, pp. 116–131, 2017.
- [7] S. Glas, N. Spierings, M. Lubbers, and P. Scheepers, "How politics shape support for gender equality and religiosity's impact in arab countries," *European Sociological Review*, vol. 35, no. 3, pp. 299–315, 2019.
- [8] A. M. Ghouri, T. M. Kin, N. K. b. Y. Yunus, and P. Akhtar, "The dataset for validation of customer inspiration construct

- in Malaysian context," *Data in Brief*, vol. 25, Article ID 104131, 2019.
- [9] S. Bettany, S. Dobscha, L. O'Malley, and A. Prothero, "Moving beyond binary opposition: exploring the tapestry of gender in consumer research and marketing," *Marketing Theory*, vol. 10, no. 1, pp. 3–28, 2010.
- [10] V. Venkatesh, M. G. Morris, and P. L. Ackerman, "A longitudinal field investigation of gender differences in individual technology adoption decision-making processes," *Organizational Behavior and Human Decision Processes*, vol. 83, no. 1, pp. 33–60, 2000.
- [11] E. Van Tonder and D. J. Petzer, "The interrelationships between relationship marketing constructs and customer engagement dimensions," *Service Industries Journal*, vol. 38, no. 13-14, pp. 948–973, 2018.
- [12] S. Sengan, O. I. Khalaf, G. R. K. Rao, D. K. Sharma, and A. A. Hamad, "Security-aware routing on wireless communication for E-health records monitoring using machine learning," *International Journal of Reliable and Quality E-Healthcare*, vol. 11, no. 3, pp. 1–10, 2022.
- [13] R. Tavallaei, S. Shokouhyar, and F. Padash Pour, "Effects of electronic banking services adoption on banks performance via balanced scorecard approach using fuzzy TOPSIS," *International Journal of Social Science and Humanities Research*, vol. 10, pp. 40–62, 2015.
- [14] A. A. Aliyu, T. Rosmain, and J. Takala, "Online banking and customer service delivery in Malaysia: data screening and preliminary findings," *Procedia - Social and Behavioral Sciences*, vol. 129, pp. 562–570, 2014.
- [15] F. I. Anyasi and P. A. Otubu, "Mobile phone technology in banking system: its economic effect," *Research Journal of Information Technology*, vol. 1, no. 1, pp. 1–5, 2009.
- [16] S. Jha, S. Ahmad, H. A. Abdeljaber, A. A. Hamad, and M. B. Alazzam, "A post covid machine learning approach in teaching and learning methodology to alleviate drawbacks of the e-whiteboards," *Journal of Applied Science and Engineering*, vol. 25, no. 2, pp. 285–294, 2021.
- [17] A. A. Shaikh and H. Karjaluo, "Mobile banking services continuous usage--case study of Finland," in *Proceedings of the 2016 49th Hawaii International Conference on System Sciences (HICSS)*, pp. 1497–1506, IEEE, Koloa, HI, USA, 2016 January.
- [18] H. K. Asfour and S. I. Haddad, "The impact of Mobile Banking on enhancing customers' E-satisfaction: an empirical study on commercial banks in Jordan," *International Business Research*, vol. 7, no. 10, p. 145, 2014.
- [19] R. Gomachab and B. F. Maseke, "The impact of mobile banking on customer satisfaction: commercial banks of Namibia (Keetmanshoop)," *Journal of Internet Banking and Commerce*, vol. 23, no. 2, pp. 1–18, 2018.
- [20] A. Jose, D. G. G. Kumar, and R. Varghese, "Factors influencing customer adoption of mobile banking services with special reference to ernakulam district," *IOSR Journal of Business and Management*, vol. 19, no. 11, pp. 41–47, 2017.
- [21] A. H. Hameed, E. A. Mousa, and A. A. Hamad, "Upper limit superior and lower limit inferior of soft sequences," *International Journal of Engineering and Technology (UAE)*, vol. 7, no. 7, pp. 306–310, 2018.
- [22] C. P. Alderfer and R. A. Guzzo, "Life experiences and adults' enduring strength of desires in organizations," *Administrative Science Quarterly*, vol. 24, no. 3, pp. 347–361, 1979.
- [23] S. Y. Chen and R. Macredie, "Web-based interaction: a review of three important human factors," *International Journal of Information Management*, vol. 30, no. 5, pp. 379–387, 2010.
- [24] V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User acceptance of information technology: toward a unified view," *MIS Quarterly*, vol. 27, no. 3, pp. 425–478, 2003.
- [25] Z. Zhou, X.-L. Jin, D. R. Vogel, Y. Fang, and X. Chen, "Individual motivations and demographic differences in social virtual world uses: an exploratory investigation in Second Life," *International Journal of Information Management*, vol. 31, no. 3, pp. 261–271, 2011.
- [26] J. F. Hair, M. Sarstedt, L. Hopkins, and V. G. Kuppelwieser, *Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research*, European business review, Mont-Saint-Aignan, France, 2014.
- [27] J. C. Nunnally and I. H. Bernstein, "This week's citation classic," *Psychom. theory*, vol. 34, p. 1982, 1979.
- [28] C. Fornell and D. F. Larcker, "Structural equation models with unobservable variables and measurement error: algebra and statistics," *Journal of Marketing Research*, vol. 18, 1981.
- [29] M.-H. Wang and T.-Y. Yang, "Investigating the success of knowledge management: an empirical study of small- and medium-sized enterprises," *Asia Pacific Management Review*, vol. 21, no. 2, pp. 79–91, 2016.
- [30] D. Compeau, C. A. Higgins, and S. Huff, "Social cognitive theory and individual reactions to computing technology: a longitudinal study," *MIS Quarterly*, vol. 23, no. 2, pp. 145–158, 1999.