

## Factors That Influence Consumer Satisfaction with Mobile Payment : The China Mobile Payment Market

**Yuanyuan Wang**

Department of Business Administration,  
Dong-A University, Busan, 49636, Korea

**Joo Hwan Seo**

Department of Business Administration,  
Dong-A University, Busan, 49636, Korea

**Woon-Kyung Song**

Department of Business Administration,  
Korea Aerospace University, Goyang, 10540, Korea

### ABSTRACT

*The purpose of this study was to investigate the key factors that influence consumers' preference for mobile payment in China. China has been quietly experiencing a third technological revolution that has markedly changed the way of life for its people. We used the structural equation modeling with 573 Chinese people to investigate the mobile-payment system in China based on the technology acceptance model. We found that factors such as value of service, security, convenience, and perceived usefulness have an impact on consumer satisfaction, and that satisfaction supports consumer purchasing. Also, it is possible to conclude that this proven instrument will assist researchers to further develop and refine mobile-payment research models.*

**Key words:** Mobile Payment, Technology Acceptance Model, Structural Equation Model, Consumer Purchase, Consumer Satisfaction.

### 1. INTRODUCTION

Currently, mobile payment transactions have been rapidly increasing throughout the world. Through the advancement of information technology, smart phone payment methods have changed, leading more and more consumers to use mobile payments. A mobile payment refers to making payments for goods, services, and bills in a variety of areas using smart phones and personal digital assistants [1], [2]. According to the Nielsen study survey (Feb, 2014), "Global Payment Gateways of the Future," experts claim that mobile payment smart phone apps powered by near-field communication technology are being adopted at a quick pace [3].

Especially in China, mobile payments have been quickly increasing every year since 2010 despite some barriers, such as

interface system and familiarity. Chinese consumers regard mobile payment as the preferred payment method in everyday life.

From 2012 to 2017, the number of mobile users in China has grown significantly.

By 2012, the number of mobile internet users directly counted 420 million people. As of June 2017, mobile payment dissemination has reached 751 million consumers [4]. Drawing on these results, we predict that consumers employ mobile payments in various aspects of the consumer life style, including purchase channels, transaction patterns, and public transport such as taxis, subways, airplanes, and more. Consumers frequently use mobile payment services due to their convenience and ease of use in addition to the environment, which means non-materialization in the social perspective compared to the credit card system [5].

Companies can not only reduce the material cost of cards but also look to the environment of the society, which seems to call for corporate social responsibility where in companies provide consumers with an effective mobile payment

---

\* Corresponding author, Email: [joohwans@dau.ac.kr](mailto:joohwans@dau.ac.kr)  
Manuscript received Sep. 23, 2019; revised Dec. 09, 2019;  
accepted Dec. 10, 2019

transaction. We expect that the practice of mobile payment has a promising trend and large market in China, because customers enjoy the usefulness and convenience of mobile payment [6]. In addition, each mobile payment provider has aided in developing the system, involving government, public service agencies, and communities. Consumers enjoy online payment systems everywhere, including services network fees, medical reservation, traffic violation fees, taxi fares, water fees, and more. Simultaneously, the establishment of an automatic deduction system makes mobile payment more convenient, more intelligent, and also greatly improved inefficiency, particularly for public service agencies [7].

More specifically, e-commerce sites in China—such as taobao.com, Tmall.com, and JD.com—have begun to accept mobile payments. The development of online shopping has accelerated the use of mobile payments [8]. Consumers in China feel that the mobile payment system is easier than debt or credit cards, because customers need to get more services from credit card companies, and consumers are skeptical regarding bank security. This special status for banks contributed to their expansion and abuse of bank rights [9]. The Chinese government's banking regulatory commission and other institutions have not yet set up independent consumer protection of basic payment methods outside of banks. Therefore, consumer protection remains a frequent problem when consumers use the bank's payment methods.

This study investigates the Chinese market as a research topic for the following reasons. To start, China has one of the world's largest and most promising mobile payment markets, making the credibility of the study relatively high. For China's existing mobile payment providers, some key issues can be found to facilitate the improvement of mobile payment services. Moreover, with the arrival of the artificial intelligence revolution, currency trading has not been perceived as revolutionizing the way people live and think, which may cause people to think that currency trading is the safest and most reliable way to pay in the future. This study's sections include the theoretical background and research hypothesis, the methodology and findings, and the conclusions and implications.

## 2. THEORETICAL BACKGROUND AND RESEARCH HYPOTHESIS

### 2.1 Theoretical background

The research design is based on the technology acceptance model (TAM) [10]. The TAM is a theory of reasoned action (TRA) adopted and established by Fishbein and Ajzen (1975) that explains the relationship between attitudes and behaviors in human action [11]. The theory suggests that behavioral intentions are influenced by attitudes and subjective norms and that behavioral intentions will affect behavior.

The TAM sees perceived usefulness and perceived ease of use as the determining factors that affect consumer acceptance of new technologies. Perceived usefulness is defined as a person considers a actual system would improve job performance. Also, the perceived ease of use can be defined as a person regards a specific system as free from effort [2], [10].

Even though the TAM has been tried and used in numerous studies, this study is the first to use this theory to explain Chinese consumer adoption behavior of mobile payment.

This study modifies some part of the variables and incorporates additional constructs in order to extend the original theory. Those factors that affect consumers' use of mobile payment intentions will be discussed in the context of past research.

### 2.2 Research hypothesis

#### 2.2.1 Security of mobile payment

Reference [10] demonstrated that consumers must undertake uncertainties and risks associated with adoption decision. In the mobile payment system, most consumers lack prior experience regarding this system [12]. Even though consumers feel that mobile payment is fast, easy, and convenient, they still worry about the security, which means perceived risk. In general, fewer experiences regarding mobile payment services increase consumers' perceived risk. Under the traditional framework, the negative effects associated with service adoption are reflected by perceived risk, regardless of the monetary costs incurred using mobile payment services [13].

In this way, if the perceived risk of mobile payment services negatively affects the intention to adopt them, then consumers recognize perceived security as an important factor of their use of the electronic payment system [14]. Security requirements include privacy, anonymity, trustworthiness, and the scope of the payment system to support the regulatory framework. The more security provided by third-party companies, the more increased consumer satisfaction. If consumers can experience good security with mobile payment experience, it will greatly increase consumer satisfaction.

**H1:** Security has a positive effect on consumer satisfaction.

#### 2.2.2 Value of service

Perceived service quality is defined as the customer's assessment of the overall excellence or superiority of the service. Overall service quality is evaluated by five underlying dimensions: tangibles, reliability, responsiveness, assurance, and empathy [15]. Service quality directly affects customer satisfaction [16]. Service quality also impacts satisfaction and service value [17]. Self-service technologies can change customer satisfaction or dissatisfaction [18], [19].

In this case, the signaling and screening concept can be applied to service providers and consumers. Service providers are signaled, and consumers are screened. When consumers encounter quality services, service providers send a good signal regarding their products, while consumers judge service providers as competent and friendly. Thus, if service providers present reliable services and timely responses to users, users' satisfaction will be directly affected [20]. Much previous research has discussed the quality of service as indicated by technical quality and functional quality. Service quality can also be used, as customers can form expectations by the perception of service quality [21], [22].

**H2:** Value of service has a positive effect on consumer satisfaction.

### 2.2.3 Convenience

Consumers' perceptions of service convenience involve assessing the time and effort required to use a service. Time and effort are nonmonetary costs that consumers must bear in order to receive the service. The degree of cost varies, but the investment of some amount of time and effort is inherent [23], [24]. In general, the more time and effort associated with a service, the lower the consumers' perception of service convenience. Convenience is integrated into the marketing of both goods and services. All types of convenience that provide good quality of products—such as time-saving, cost-effective, and easy approaches that reduce consumers' time or effort in shopping—belong to the domain of service convenience. Demand for convenience continues to rise [24], [25]. Many current studies support the relationship between convenience and the value of time. In general, the longer the amount of time associated with a service, the lower the consumers' perceptions of the service convenience [26]. In addition, in a study on mobile transactions, convenience was considered to be one of the most important factors affecting the success of mobile payment use [27]. Convenience features are related to the elements of user-generated time and location utility [28]. When the convenience of mobile payment is improved, the satisfaction of the user experience is positively influenced.

**H3:** Convenience has a positive effect on consumer satisfaction.

### 2.2.4 Perceived usefulness

According to literature, the perceived usefulness is the central premise of attitudes towards the use of a certain technology. In general, the definition of perceived usefulness is a particular system that improves task performance [10]. A number of empirical studies in the mobile technology literature found that perceived usefulness increased mobile transaction times and volumes due to consumer awareness [29]. Mobile payment is still considered an emerging area of payment technology; if consumers can perceive its usefulness, this technology will strongly and positively affect consumer attitudes and intent.

**H4:** Perceived usefulness has a positive effect on consumer satisfaction.

### 2.2.5 Satisfaction and consumer purchase

Satisfaction has a significant impact on customer purchase [2], [30]-[32]. Consumer satisfaction is related to the overall attitude of the customer during or after the purchase of the service [2], [30], [32], [33]. It also reflects the cumulative feelings developed in multiple interactions with a service provider [34]. Satisfaction is an assessment of the customer experience of interacting between service providers [35].

Satisfaction is a result of the customer's judgment on the issue and the extent to which the characteristics of the product or service meet the expectations of the customer [36]. Thus, we predict that if the consumers have positive experiences in their

use of mobile payment, their overall satisfaction will increase. Since consumer satisfaction reflects the degree of a customer's positive feelings concerning a service provider in a mobile commerce context, it is important for service providers to understand the customer's view of their services [37]. Thus, we make satisfaction to be a significant determinant of behavior.

**H5:** Consumer satisfaction has a positive effect on the customer purchase.

Figure 1 describe the research model. We investigate five variables such as security, value of service, convenience, usefulness and satisfaction to consumer purchase.

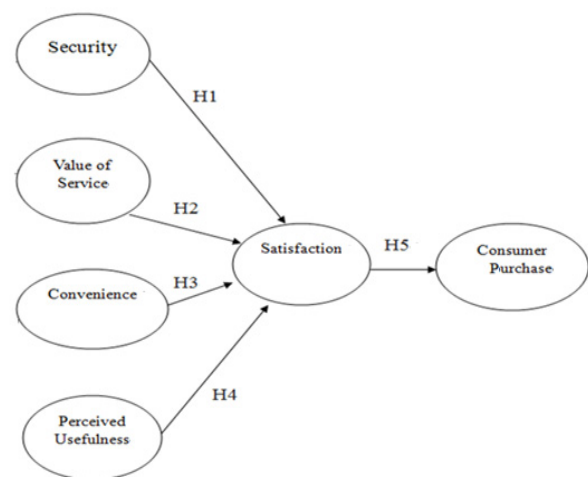


Fig. 1. Impact on Consumer Purchase

## 3. METHODOLOGY

### 3.1 Data and Descriptive Statistics

This study uses the structure equation model (SEM) in focusing on Chinese consumer factors for mobile payment systems. Furthermore, we consider certain socioeconomic variables and psychological factors. All the items are measured on 7-point Likert scales, with anchors ranging from 1 (strongly disagree) to 7 (strongly agree).

The questionnaire is aimed at consumers who use mobile payment systems in China. The questionnaire was distributed on the Chinese professional survey site Sojump. A total of 760 questionnaires were distributed, and 573 valid answers were returned. We used judgment sampling because all respondents live in China and also use mobile payment. We also obtained some demographic information, including gender, age, monthly income, education, occupation, location, and marital status. Table 1 shows the descriptive statistics of the sample.

In terms of gender, male and female participants were 49.2% and 50.8% of the sample, respectively. In terms of age, the distribution of the age is relatively wide. More specifically, 20-24 years old (15.3%) and 25-29 years old (29.8%) accounted for larger proportions. 20-29 years old (41.2%) group is larger than 30-39 years old group.

As for monthly income, 1500-4500 Chinese yuan group is around 50% in the income. With regard to education, the

majority had graduated from technical college (41.9%) or with a bachelor's degree (32.8%). Around 80% had graduated above the community college degree. In terms of occupation case, about half of the sample(55.7%) were company salaried employees. The rest were students, public officers, education employees, and others. In terms of living area, about 43.5% come from a big city and 56.5% come from a small city. According to the Chinese city classification system, the first cities are Beijing, Shanghai and Guangzhou; more than 20 cities are classified as big cities. The rest are considered small cities. Finally, the marital status is evenly distributed.

Table 1. Descriptive Statistics Results

Demographic	Category	Sample	Percentage
Gender	Male	282	49.2
	Female	291	50.8
Age	10~19	15	2.7
	20~24	88	15.3
	25~29	171	29.8
	30~34	114	20
	35~39	91	15.8
	40~49	60	10.4
	50~59	33	5.8
	above 60	1	0.2
Income(CNY )	below 1500	80	14
	1500~4500	292	51
	4500~9000	157	27.3
	9000~35000	36	6.3
	above 35000	8	1.4
Education	high school or before high school	117	20
	technical college	240	42
	bachelor degree	188	33
	after master degree	28	5
Occupation	company salaried employee	319	56
	public servant	22	4
	education	58	10
	student	48	8
	self-employed	35	6
	housewife	6	1
	others	85	15
City	big	249	43
	small	324	57
Marital	single	181	31
	married	245	43
	married and had children	147	26

4. RESULTS

We conducted a confirmatory factor analysis to further examine the measurement models including Cronbach's alpha, composite reliability and average variance extracted (AVE). As Table 2 shows below, the average variance extracted (AVE) for

every construct was well above 0.5, the composite reliability exceeded 0.7. From the Nunnally(1978)'s research that he advocated the score of each structure should be greater than 0.6 to be reliable [38]. Due to the overall reliability of the measurement above 0.7, the measuring instruments show sufficient internal consistency. And the square root of AVE is greater than the corresponding correlation coefficient, indicating acceptable discriminate validity.

In order to test the validity of discriminant, this study compared square roots of average variance extracted of each construct and completes the correlation with other constructs.

Table 2. Inter construct correlation

	Estimate	S.E.	C.R.	P-value
Security <--> Service	.669	.062	10.772	***
Service <--> Usefulness	.888	.069	12.917	***
Usefulness <--> Convenience	.832	.067	12.344	***
Security <--> Usefulness	.640	.062	10.317	***
Service <--> Convenience	.692	.060	11.483	***

We examined the SEM with the Amos software to test hypotheses. The model includes 17 items describing 6 latent constructs which are security, value of service, perceived usefulness, convenience, satisfaction and consumer repurchase. The overall goodness of fit of the research model is affected by sample size and model complexity. In general, the structural model fit indices obtained: RMR=0.085, GFI=0.883, IFL=0.905, CFI=0.905, TLI=0.897, RMSEA=0.082 indicated satisfactory model. Comparison of all fit indices with their corresponding recommended values provided evidence of acceptable model fit. Thus, we move to the final step.

The final step in model estimation is to explore the significance of each causal relationship for hypotheses in the model. Table 3 shows the test results. Hypotheses 1, 2, 3, and 4 examined the impact of satisfaction and hypothesis 5 tested consumer satisfaction and customer purchase. Hypotheses from 1 to 4 are significant effect on satisfaction and hypothesis 5 have a positive impact on customer purchase at p=0.000. The outcome demonstrated that satisfaction has a positive effect on consumer repurchase at p=0.000. Thus, the results show that these assumptions are fully supported.

Table 3. The result of hypothesis

Relationship	Estimate	S.E.	C.R.	P-value
Security-->Satisfaction	.177	.051	3.465	***
Value of Service -->Satisfaction	.318	.049	6.488	***
Convenience -->Satisfaction	.443	.050	8.905	***

Perceived Usefulness -->Satisfaction	.809	.097	8.331	***
Satisfaction -->Consumer purchase	1.035	.083	12.498	***

<Note>\*\*\*, \*\*, and \* are statistically significant at 0.01, 0.05 and 0.1, respectively.

## 5. CONCLUSIONS AND IMPLICATIONS

The main purpose of this study was to determine the factors that affect consumers' preference for mobile payment. In order to achieve this goal, the current study proposed a research model consisting of seven exogenous latent variables and three endogenous latent variables.

Based on the results of study, the main contributions are as follows. First, in the mobile payment system, customer satisfaction is a very important factor that has a direct and positive impact on consumer purchase behavior, which means consumers continue to use it.

Second, in terms of mobile payment as a service involving technical products, the usefulness of the product, security and convenience is key factors. Compared with others, the perception of usefulness has a greater impact on consumer satisfaction.

Moreover, this study confirms the adjusted TAM (1989) theory, which presented perceived usefulness as having a decisive influence on consumer repurchase even if the study incorporates other variables. Although some of the variables in the original model assumptions were not valid, other relationships were found.

In this study, we found from our survey data that the age group 20-40 years is the largest age group using mobile payment systems. Combined with China's specific situation analysis, people in this age group have some special features. Most of these individuals were born in China between the 1980s and 1990s, under the Chinese one-child policy. This means that they are born with greater financial support and economic purchasing power. Therefore, in the mobile payment market in China, we cannot ignore or underestimate the characteristics and needs of this age group of consumers. Furthermore, it is possible to conclude that this proven instrument will help researchers further develop and refine mobile payment research models. In the future, we will try to study various age groups to generate more research in this area. Moreover, we will try to investigate mobile payment for other countries such as Japan, Korea and U.S. to consumer satisfaction. Through further studies, we will be able to find the ways to increase the effect of consumer purchase strategies for both practitioner and academic researcher.

## ACKNOWLEDGEMENT

This paper work was supported by Dong-A university Research fund.

## REFERENCES

- [1] M. Carr, "Mobile payment systems and services: an introduction," In Mobile Payment Forum, 2007, p. 12.
- [2] L. Y. Chen and W. N. Wu, "An exploration of the factors affecting users' satisfaction with mobile payments," International Journal of Computer Science & Information Technology, vol. 9, no. 3, 2017, pp. 97-105. doi: <https://doi.org/10.5121/ijcsit.2017.9308>
- [3] American Marketing Association, Mobile Payments, global adoption (2014, December 6). Retrieved Sep. 7, 2019, from: <https://amalasvegas.com/mobile-payments-global-adoption>
- [4] CNNIC, 40th Statistical Survey Report On The Internet Development In China, 2017.
- [5] M. C. Ferreira, T. Fontes, V. Costa, T. G. Dias, J. L. Borges, and J. F. Cunha, "Evaluation of an integrated mobile payment, route planner and social network solution for public transport," Transportation Research Procedia, vol. 24, 2017, pp. 189-196. doi: <https://doi.org/10.1016/j.trpro.2017.05.107>
- [6] Y. B. Lu, S. Yang, P. Y. K. Chau, and Y. Cao, "Dynamics between the trust transfer process and intention to use mobile payment services: A cross-environment perspective," Information & management, vol. 48, no. 8, 2011, pp. 393-403. doi: <https://doi.org/10.1016/j.im.2011.09.006>
- [7] T. Wang, "Half of Internet users switch to use mobile payment, 'No Cash' era is coming," CNNIC, 2017.
- [8] IRESEARCH GLOBAL, China's Third-Party Online Payment Market Confronts Increasing Fierce Competition (2016, March 23). Retrieved Sep. 7, 2019, from: [http://www.iresearchchina.com/content/details7\\_20682.html](http://www.iresearchchina.com/content/details7_20682.html)
- [9] H. Yang and X. Liao, "A study on consumers' trust of bank information behavior," China Academic Journal Electronic Publishing House, vol. 115, no. 7, 2009.
- [10] F. D. Davis, R. P. Bagozzi, and P. R. Warshaw, "User acceptance of computer technology," Management Science, vol. 35, no. 8, 1989, pp. 982-1003. doi: <https://doi.org/10.1287/mnsc.35.8.982>
- [11] I. Ajzen and M. Fishbein, "A Bayesian analysis of attribution processes," Psychological Bulletin, vol. 82, no. 2, 1975, pp. 261-277. doi: <https://doi.org/10.1037/h0076477>
- [12] H. H. Bauer, R. Tina, J. S. Barnes, and M. M. Neumann, "Driving consumer acceptance of mobile marketing: a theoretical framework and empirical study," Journal of Electronic Commerce Research, vol. 6, no. 3, 2005, pp. 181-191.
- [13] S. Yang, Y. Lu, S. Gupta, Y. Cao, and R. Zhang, "Mobile payment services adoption across time: An empirical study of the effects of behavioral beliefs, social influences, and personal traits," Computers in Human Behavior, vol. 28, no. 1, 2012, pp. 129-142. doi: <https://doi.org/10.1016/j.chb.2011.08.019>
- [14] C. Jayawardhena and P. Foley, "Overcoming constraints on electronic Commerce-Internet payment systems," Journal of General Management, vol. 24, no. 2, 1998, pp. 19-35. doi: <https://doi.org/10.1177/030630709802400202>
- [15] V. A. Zeithaml, "Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence,"

- Journal of marketing, vol. 52, no. 3, 1988, pp. 2-22. doi: <https://doi.org/10.2307/1251446>
- [16] A. Caruana, "Service loyalty: The effects of service quality and the mediating role of customer satisfaction," *European Journal of Marketing*, vol. 36, no. 7/8, 2002, pp. 811-828. doi: <https://doi.org/10.1108/03090560210430818>
- [17] J. J. Cronin, M. K. Brady, and G. T. M. Hult, "Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments," *Journal of Retailing*, vol. 76, no. 2, 2000, pp. 193-218. doi: [https://doi.org/10.1016/s0022-4359\(00\)00028-2](https://doi.org/10.1016/s0022-4359(00)00028-2)
- [18] A. Beatson, L. V. Coote, and J. M. Rudd, "Determining Consumer Satisfaction and Commitment Through Self-Service Technology and Personal Service Usage," *Journal of Marketing Management*, vol. 22, no. 6, 2006, pp. 853-882. doi: <https://doi.org/10.1362/026725706778612121>
- [19] M. L. Meuter, A. L. Ostrom, R. I. Roundtree, and M. J. Bitner, "Self-service technologies: understanding customer satisfaction with technology-based service encounters," *Journal of marketing*, vol. 64, no. 3, 2000, pp. 50-64. doi: <https://doi.org/10.1509/jmkg.64.3.50.18024>
- [20] T. Zhou, "An empirical examination of continuance intention of mobile payment services," *Decision Support Systems*, vol. 54, no. 2, 2013, pp. 1085-1091. doi: <https://doi.org/10.1016/j.dss.2012.10.034>
- [21] C. Grönroos, "A service quality model and its marketing implications," *European Journal of marketing*, vol. 18, no. 4, 1984, pp. 36-44. doi: <https://doi.org/10.1108/eum000000004784>
- [22] A. Parasuraman, V. A. Zeithaml, and L. L. Berry, "SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality," *Journal of Retailing*, vol. 69, no. 3, 1988, pp. 320-352.
- [23] E. G. Bivens and B. C. Volker, "A value-added approach to household production: the special case of meal preparation," *Journal of Consumer Research*, vol. 13, no. 2, 1986, pp. 272-279. doi: <https://doi.org/10.1086/209066>
- [24] M. Srivastava and D. Kaul, "Social interaction, convenience and customer satisfaction: The mediating effect of customer experience," *Journal of Retailing and Consumer Services*, vol. 21, no. 6, 2014, pp. 1028-1037. doi: <https://doi.org/10.1016/j.jretconser.2014.04.007>
- [25] L. L. Berry and S. Grewal, "Understanding Service convenience," *Journal of Marketing*, vol. 66, no. 3, 2002, pp. 1-17. doi: <https://doi.org/10.1509/jmkg.66.3.1.18505>
- [26] B. H. Morris and R. D. Lehmann, "Allocating Discretionary Time: Complementarity Among Activities," *Journal of Consumer Research*, vol. 7, no. 3, 1981, pp. 395-406. doi: <https://doi.org/10.1086/208830>
- [27] G. Xu and A. G. Jairo, "An exploratory study of 'killer applications' and critical success factors in M-commerce," *Journal of Electronic Commerce in Organizations*, vol. 4, no. 3, 2006, pp. 63-79. doi: <https://doi.org/10.4018/jeco.2006070104>
- [28] I. Clarke, "Emerging value propositions for M-commerce," *Journal of Business Strategies*, vol. 19, no. 2, 2001, pp. 133-149.
- [29] C. Kim, M. Mirusmonov, and I. Lee, "An empirical examination of factors influencing the intention to use mobile payment," *Computers in Human Behavior*, vol. 26, no. 3, 2009, pp. 310-322. doi: <https://doi.org/10.1016/j.chb.2009.10.013>
- [30] V. Mittal and W. A. Kamakura, "Satisfaction, Repurchase Intent, and Repurchase Behavior: Investigating the Moderating Effect of Customer Characteristics," *Journal of Marketing Research*, vol. 38, no. 1, 2001, pp. 131-142. doi: <https://doi.org/10.1509/jmkr.38.1.131.18832>
- [31] B. Bai, R. Law, and I. Wen, "The impact of website quality on customer satisfaction and purchase intentions: Evidence from Chinese online visitors," *International Journal of Hospitality Management*, vol. 27, no. 3, 2008, pp. 391-402. doi: <https://doi.org/10.1016/j.ijhm.2007.10.008>
- [32] S. A. Taylor and T. L. Baker, "An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions," *Journal of Retailing*, vol. 72, no. 2, 1994, pp. 163-178. doi: [https://doi.org/10.1016/0022-4359\(94\)90013-2](https://doi.org/10.1016/0022-4359(94)90013-2)
- [33] C. Fornell, "A national customer satisfaction barometer: The Swedish experience," *Journal of Marketing*, vol. 56, no. 1, 1992, pp. 6-21. doi: <https://doi.org/10.1177/002224299205600103>
- [34] R. L. Oliver, "A cognitive model of the antecedents and consequences of satisfaction decisions," *Journal of Marketing Research*, vol. 17, no. 4, 1980, pp. 460-469. doi: <https://doi.org/10.1177/002224378001700405>
- [35] A. C. Lawrence, R. E. Kenneth, and C. Deborah, "Relationship quality in services selling: An interpersonal influence perspective," *Journal of Marketing*, vol. 54, no. 3, 1990, pp. 68-81. doi: <https://doi.org/10.1177/002224299005400306>
- [36] B. Ranjbarian, A. Sanayei, M. R. Kaboli, and A. Hadadian, "An Analysis of Brand Image, Perceived Quality, Customer satisfaction and Re-purchase Intention in Iranian Department Store," *International Journal of Business and Management*, vol. 17, no. 6, 2012, pp. 44-48. doi: <https://doi.org/10.5539/ijbm.v7n6p40>
- [37] Z. Deng, Y. Lu, K. K. Wei, and J. Zhang, "Understanding customer satisfaction and loyalty : An empirical study of mobile instant messages in China," *International Journal of Information Management*, vol. 30, no. 4, 2010, pp. 289-300. doi: <https://doi.org/10.1016/j.ijinfomgt.2009.10.001>
- [38] J. C. Nunnally and I. Bernstein, *Psychometric theory*, McGraw-Hill, New York, 1978.



**Yuanyuan Wang**

She is a doctoral student in the school of business at Dong-A University. She is interested in social media and digital marketing.

**Joo Hwan Seo**

He is an assistant professor of marketing in school of Business at Dong-A university. He received the Ph.D in Business (Marketing Major) at George Washington University. He has published in several journals including, Journal of the Academy of Marketing Science,

Journal of Business Research, Tourism Management and so on. His current research interests in sales promotions, social media, and marketing strategy.

**Woon-Kyung Song**

She is an assistant professor in School of Business of Korea Aeronautical University. She received PhD in Finance and Investments from George Washington University. Her research interests include marketing-finance interface and aviation management.