

Print ISSN: 1738-3110 / Online ISSN 2093-7717
http://dx.doi.org/10.15722/jds.16.10.201810.23

Chinese Female Consumers' Intention to Use Mobile Payment Services

Zhi Zhang*, Ji-Eun Choi**, Moon-Seop Kim***

Received: September 10, 2018. Revised: October 20, 2018. Accepted: October 10, 2018.

Abstract

Purpose – This study intended to investigate ways to influence on the Chinese female consumers' use of mobile payment services. For this purpose, this research investigated the relationships among security and compatibility of the mobile payment service, perceived usefulness and perceived ease of use, psychological benefit, and intention to use mobile payment.

Research design, data, and methodology – This research developed a structural equation model in which the usefulness, the ease of use, and the psychological benefit are predictors and the intention to use is a dependent variable. Data were collected from China female in Jiangsu and Shandong province.

Results – Empirical results showed that the security and the compatibility had a positive influence on the usefulness and the ease of use. The usefulness and the ease of use influenced on the psychological benefit respectively and the psychological benefit had a positive influence on the intention to use.

Conclusions – This research contributed to the mobile payment service literature by showing how Chinese women consumers adopt the mobile payment service based on TAM. Moreover, current study introduced the security and the compatibility as antecedents of the usefulness and the ease of use and revealed the mediating role of psychological benefit. Managerially, these results suggested retailing companies ways to influence on the Chinese female consumers' use of mobile payment services.

Keywords: Compatibility, Intention to Use, Mobile Payment Service, Psychological Benefit, Security.

JEL Classifications: M31, M39.

1. Introduction

With the popularization of the mobile Internet, mobile payment services have become widespread. In particular, in China, mobile payment has become one of the most common payment methods due to rapid economic growth, diffusion of the mobile Internet and lack of a credit card payment system. According to data from the Financial Service Report of the People's Bank of China, mobile payments in China reached 202.9 trillion yuan (\$30.05 trillion all-year exchange rate average 1: 6.75) of 2017 with an increase of 28.8 percent compared to the whole of 2016 (People's Bank of China).

There are two kinds of mobile payment services in China: QR code payments and (near-field communication (NFC)). Three major telecommunication companies and Internet companies including Alibaba and Tencent have been carrying out business in QR code payments and NFC areas, respectively. The growth of mobile payment services has led to the emergence of online financial services, including Alibaba's Alipay, Tenpay's Tenpay, Huawei Pay, Apple Pay, and Samsung Pay. In particular, since telecommunication companies, banks, smartphone makers, BAT and other Internet companies have entered the mobile payment business, the mobile payment market has been growing rapidly. Despite of the rapid growth of mobile payment business and the importance of the academic understanding of the mobile payment, there is not enough research about the adoption of mobile payment services (Dahlberg, Guo, & Ondrus, 2015). This study aims to investigate what determines consumers' adoption of mobile payment services.

China is a huge market of 1.3 billion consumers. As the first step toward understanding the Chinese mobile payment business, this study focuses on women consumers, who

* First Author, Doctoral Student of Kangwon National University, Department of Business Administration. E-mail: zhangzhi1@naver.com

** Assistant Professor of Kangwon National University, Department of Business Administration. E-mail: jjeun@kangwon.ac.kr

*** Corresponding Author, Associate Professor of Kangwon National University, Department of Business Administration. E-mail: marketing@kangwon.ac.kr

account for 49% of the market and whose influence on the consumer market has been expanding quickly. The current study will focus on what influences on Chinese women consumers' use of mobile payment services. In particular, based on the technology acceptance model (TAM), antecedents of the intention to use mobile payment systems will be examined. Considering the fact that TAM has some limitations to comprehensively explain the adoption of new technology, current study will highlight the role of security and compatibility and psychological benefits. Lack of security and compatibility was considered as the representative barriers to the adoption of new technology (Dahlberg, Guo, & Ondrus, 2015). In this study security and compatibility will be examined as antecedents of the perceived usefulness and antecedents of the perceived ease of use. Moreover, this research will investigate how psychological benefits mediates the relationship between the intention to use mobile payment systems and the usefulness and the ease of use. This understanding of women consumers in China is a prerequisite to a successful retailing strategy for the Chinese market.

2. Theoretical Background and Hypotheses

2.1. Mobile Payment

Mobile payment services are those performed via mobile devices, including mobile phones (Butz & Kruger, 2001; Liébana-Cabanillas, Marinkovic, de Luna, & Kalinic, 2018). A mobile payment service allows users to trade a certain product or service by transferring a certain number of credit points or a fixed deposit amount. These services are gradually expanding from small amount payments to high amount payments. With the help of technology development and the penetration of smartphones, mobile payment systems have evolved into various forms including mobile wallets, contactless NFC, and QR code payments. In China, consumers are able to use payment services anytime and anywhere, which extends the banking business.

2.2. Technology Acceptance Model

TAM was primarily developed to understand and predict the behaviors of computer users in the workplace (Davis, 1989), and has mainly been studied in relation to information technology acceptance within organizations (Chau & Hu, 2001; Taylor & Todd, 1995). TAM applies the relationship between belief-attitude-behavioral intention and the theory of reasoned action (Ajzen & Fishbein, 1975) to the field of information technology. It suggests perceived ease of use and perceived usefulness as a belief that influences the attitude and behavioral intention of using personal information technology (Davis, Bagozzi, & Warshaw, 1989; Taylor & Todd, 1995).

Perceived ease of use refers to "the degree to which a

system would be free of effort," and perceived usefulness refers to "the degree to which a person believes that using a particular system would enhance job performance." Perceived ease of use and perceived usefulness enhanced a consumer's satisfaction, attitude, pleasure, and purchase intention (Chen & Shang, 2018; Johnson, Kiser, Washington, & Torres, 2018; Long, Park, & Lee, 2018; Seo & Lee, 2014; Na & Hong, 2008). Usually, it is found that the usefulness has a greater influence on intention compared to the ease of use (Davis, Bagozzi, & Warshaw, 1989; Koufaris, 2002; Liébana-Cabanillas et al., 2018; Venkatesh & Davis, 2000).

This study investigates the antecedents of the perceived ease of use and usefulness. This investigation would enrich the current TAM literature and could suggest managerial implications on how to motivate potential consumers to use a mobile payment service.

2.3. Security

Usually, security refers to the measures that are taken to protect one's property. With the widespread use of smartphones, the security of personal information stored on smartphones has become very important for users. In particular, smartphones contain important and sensitive personal information, and therefore access to this information must be controlled in order to protect the user's privacy.

As with other literature related to consumer's technology acceptance, this study has an interest in security, not as a measure to protect one's property, but as the consumer's perceived safety. This refers to the degree to which consumers feel safe about personal privacy infringement or data security when using mobile payment services (Buellingen & Woerter, 2004). In particular, in the mobile payment context, perceived security refers to the degree of feeling secure about personal information leakage when using a mobile payment service. With the popularization of the mobile Internet, it has become possible to access information anytime and anywhere, and so the possibility of information leakage has become a serious problem (Gunasekaran & Nagi, 2003).

Previous research has shown the importance of the consumer's perception of security. The risk of personal information leakage, privacy violation, and hacking has a negative influence on the consumer's attitude toward mobile payment services (Moon & Jung, 2004). Perceived security determines a consumer's intention to use a mobile payment service (Johnson et al., 2018; Liébana-Cabanillas et al., 2018).

Therefore, this study hypothesized that the higher the consumer's perceived security of a mobile payment service is, the higher perceived ease of use and perceived usefulness of mobile payments will be.

- H1** The security of mobile payments has a positive effect on perceived usefulness.
- H2** The security of mobile payments has a positive effect on perceived ease of use.

2.4. Compatibility

Compatibility is the degree to which an innovation is perceived to be consistent with potential users' existing values, prior experiences and needs (Mallat, Rossi, Tuunainen, & Oorni, 2006). Compatibility is considered one of the most important predictors in Innovation Diffusion Theory by (Rogers, 1983), which explains consumers' adoption of innovations. According to the theory, five innovation characteristics: compatibility, complexity, observability, relative advantage and trialability, determine the consumer's adoption of an innovation (Mallat et al., 2006). However, some research shows that only compatibility, complexity, and relative advantages are consistent antecedents of the diffusion of innovation (Agarwal & Prasa, 1998; Plouffe, Hulland, & Vandebosch, 2001).

Some researchers have incorporated compatibility and TAM so that they can better predict a consumer's adoption of innovative technologies such as spreadsheet software, online services and smart cards (Brancheau & Wetherbe, 1990; Plouffe, Hulland, & Vandebosch, 2001). In particular, research on mobile banking adoption in the UK shows that the compatibility of mobile banking with consumer needs and lifestyles had a positive effect on attitudes towards the adoption of mobile banking (Lee & Cheng, 2003). Also, compatibility positively influences on the perceived usefulness and the ease of use (Kim, Muna, & Kang, 2007; Wu & Wang, 2005)

Therefore, this research hypothesized that the higher the consumer's perception of compatibility is, the higher perceived ease of use and perceived usefulness of mobile payments will be.

- <H3> Compatibility has a positive effect on perceived usefulness.
- <H4> Compatibility has a positive effect on perceived ease of use.

2.5. Psychological Benefit

Zeithaml (1988) proposed that the customer's perceived value is the benefits received from a product or service relative to the cost paid for the product. A benefit is the extent to which consumers' needs or wants are fulfilled by consuming or using a product or service (Gutman, 1982; Kazemi & Javanmard, 2017; Lee & Huh, 2017; Peter & Olson, 1987). Peter and Olson (1987) divided benefits into functional benefits, psychological benefits, and social benefits.

Functional benefits are direct benefits from consuming or using a product or service and are usually related to the concrete attributes or functions of a product or service. Psychological benefits are emotional benefits from consuming or using a product or service and are usually related to the abstract attributes of a product or service (Claeys, Swinnen, & Abeele, 1995; Gerpott, Rams, & Schindler, 2001). In this study, psychological benefit is defined as the customers'

emotional benefits when they use mobile payment services.

Functional benefits have been considered as more important than psychological benefits and researched as a major antecedent of attitude and purchase intention or intention to use (Reibstein & Traver, 1982; Bawa & Shoemaker, 1987). However, recent studies have investigated the role of psychological benefits. Some studies have shown that monetary facilitation provides psychological benefits such as pleasure and entertainment (Liao & Ze, 2006).

Recently, with the development of a mobile payment infrastructure and the increase in users, it takes less time for consumers to complete the purchase process with mobile payments. Compared to traditional offline payment, which requires paper currency or a credit card, mobile payment can be paid easily via smartphone. Therefore, it is considered useful and easy to use a payment service, and moreover, the efficiency and accuracy of mobile payment allow consumers to perceive themselves as smarter customers. This perception leads to such psychological benefits such as pleasure, curiosity, interest and entertainment (Chandon, Wansink, & Laurent, 2000).

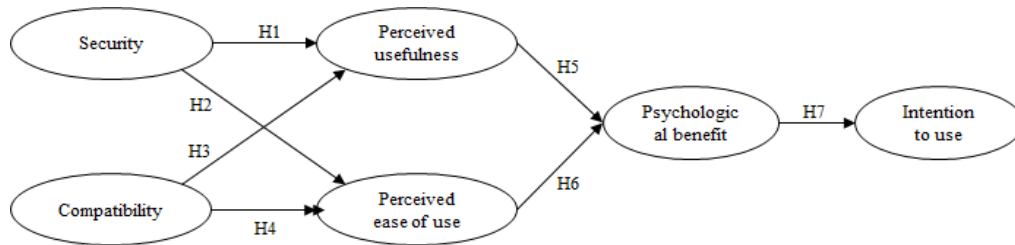
Based on the review of previous literature, it is hypothesized that the perceived usefulness of mobile payments and perceived ease of use will lead to psychological benefits.

- <H5> Perceived usefulness has a positive effect on psychological benefits.
- <H6> Perceived ease of use has a positive effect on psychological benefits.

Previous research has shown that the psychological benefits of coupons increases the intention to use coupons (Price, Feick, & Guskey-Federouch, 1988). Consumers who experience some psychological benefits while using payment services, including satisfaction and pride, intend to use these services (Lichtenstein, Netemeyer, & Burton, 1990). In particular, when consumers use mobile payment services through new media, they are more likely to feel interested, pleased, and proud of their adoption of this technology. For example, it has been shown that psychological benefits including fun and entertainment have a positive effect on attitude and intention to use (Ashworth, Darke, & Schaller, 2005; Chandon et al., 2000). Therefore, it is expected that these psychological benefits will increase the consumer's intention to use mobile payment services.

- <H7> Psychological benefits have a positive effect on the intention to use mobile payment services.

Based on previous research and these hypotheses, this study suggests a research model, as shown in <Figure 1>. Considering the importance of security and compatibility of mobile payment services, this research suggests these as antecedents of usefulness and ease of use. Moreover, the current study examines the mediating role of psychological benefits between the perceived usefulness and the ease of use and the intention to use mobile payment services.



<Figure 1> Research model

3. Methodology

3.1. Samples

Data for this research were collected via an online site. In order to verify the hypothesis of this research, 190 young Chinese women were recruited and responded to a survey questionnaire. The responses of 10 participants who did not answer some questions were removed. Thus, responses from 180 participants were used for the subsequent analysis. Demographic information on the respondents are described in <Table 1>.

<Table 1> Demographics Information of the Participants

	Frequency	Percent (%)
Age		
18~29	147	81
30~39	28	15.5
40~49	2	1
50~59	3	1.6
Education level		
Under Senior High School	7	3.8
Senior High School	41	22.7
College	81	45
Graduate (or above)	51	28.3
Monthly income (Yuan)		
Less than3000	70	38.9
3000-5000	56	31.1
5000-8000	24	13.3
8000	30	16.7
Job		
Student	62	34.4
Employee	45	25
Public Official	9	5
Self-employed	11	6
Housewife	7	3
The Others	35	19
Period of Use of mobile payment service		
< 6 months	9	5
0.5~1 year	19	10.6
1~1.5 year	7	3.9
1.5~2 year	38	21.1
more than 2years	107	59.4
Frequency of use in one week		
≤10 times	62	34.4
11~20 times	53	29.4
21~30 times	28	15.6
31~40 times	10	5.6
41 times≤	27	15

3.2. Measurements

To ensure the validity and reliability of measurements, the measurement items were adopted from previous research and then modified for this study. Participants answered to items on a five-point scale (1=strongly disagree; 5=strongly agree). <Table 2> shows the operational definitions and measurement items of each construct.

4. Data analysis and results

4.1. Reliability and Validity

In order to verify reliability and validity, SPSS 24.0 and AMOS 21.0 were used. Confirmatory factor analysis was conducted using the Maximum Likelihood Method. As shown in <Table 3>, the standardized loadings(λ) and t-value of all constructs were significant, thus verifying convergent validity (Anderson & Gerbing, 1988; Bollen, 1989). The composite reliability (CR) was greater than the general standard of 0.7, showing that all items had adequate reliability and discriminate validity. Cronbach's α value of each construct was greater than .70, ensuring internal consistency. As presented in <Table 4>, the average variance extracted value (AVE) was over 0.5 and every square root of AVE was bigger than the correlation coefficients of each construct, thus verifying discriminant validity.

4.2. Hypothesis Test

AMOS 21.0 was used to analyze the model fit and hypothesis. The indices of model fit show that the current research model had a good fit (GFI= .863, CFI= .933, TLI= .923, IFI= .934, RMSEA= .050, RMR= .047). In addition, as shown in <Table 5>, all hypotheses were supported. Specifically, the security has a positive effect on perceived usefulness (H1: β =.360, p < .001) and on perceived ease of use (H2: β =.373, p < .001). Compatibility has a positive effect on perceived usefulness (H3: β =.377, p <.001) and on perceived ease of use (H4: β =.496, p <.001). Perceived usefulness has a positive effect on psychological benefits (H5: β =.560, p <.001) and perceived ease of uses has a positive effect on psychological benefits (H6: β =.175, p <.05). In addition, the psychological benefit positively influences on the intention to use mobile payment services (H7: β =.241, p <.05).

<Table 2> Operational Definitions and Measurements

Variables	Operational Definition	Items	References
Security	The extent to which users feel safe about personal privacy infringement and data security	There is no risk for the personal information leakage	Suh & Han (2002), Buellingen & Woerter (2004)
		There is no fear of hacking when using mobile payment services	
		Using mobile payment services is safe	
		I can be adequately protected from problems that arise from the mobile payment service	
Compatibility	The degree to which a innovation is perceived to be consistent with users' values, prior experiences and needs	Using a mobile payment service is compatible with my other use of a mobile phone	Mallat et al. (2006)
		Mobile payment services are a suitable method for me to purchase goods/services	
		Using a mobile payment service is compatible with my style	
		Mobile payment services are compatible with my ways to purchase goods/services	
Perceived usefulness	The degree to which a mobile payment service is perceived to enhance one's performance	Mobile payment services are useful for the purchase of goods/services.	Davis (1989), Davis et al. (1989)
		Mobile payment services make the purchase of goods/services faster	
		Mobile payment services make the purchase of goods/services convenient	
		Overall, I find that using a mobile payment service is an effective way to make payments	
Perceived ease of use	The degree to which a mobile payment service is perceived to be easy to use	Mobile payment services are easy to use	Davis (1989)
		Using a mobile payment service is simple	
		Using a mobile payment service is clear and understandable	
Psychological benefit	Customers' emotional benefits obtained from using a mobile payment service	Using a mobile payment service makes me feel good	McDougall & Levesque (2000), Han (2011)
		Using a mobile payment service makes me feel smart	
		Using a mobile payment service is more interesting than other payment methods	
		Using a mobile payment service is fun	
Intention to use	The user's likelihood to use mobile payment services	I will use mobile payment services	Davis (1989), Bhattacharjee (2001)
		I will use mobile payment services as much as possible	
		I will use mobile payment services more than any other payment method	

<Table 3> Confirmatory Factor Analysis

Construct	Items	Standardized Loadings(λ)	S.E.	t-value	Cronbach's alpha(α)	Composite Reliability	AVE
Security	security1	0.748			.774	.832	.556
	security2	0.726	.170	6.474			
	security3	0.754	.179	7.066			
	security4	0.770	.172	6.765			
Compatibility	compatibility1	0.635			.821	.856	.600
	compatibility2	0.691	.222	7.215			
	compatibility3	0.843	.175	7.327			
	compatibility4	0.838	.195	6.012			
Perceived usefulness	usefulness1	0.666			.860	.903	.699
	usefulness2	0.760	.097	9.171			
	usefulness3	0.810	.100	9.875			
	usefulness4	0.782	.099	9.354			
Perceived ease of use	easiness1	0.708			.836	.893	.737
	easiness2	0.833	.110	11.368			
	easiness3	0.766	.113	10.160			
Psychological benefit	psychological1	0.788			.839	.870	.627
	psychological2	0.807	.118	11.280			
	psychological3	0.752	.103	9.378			
	psychological4	0.689	.115	8.833			
Intention to use	intention1	0.887			.802	.874	.700
	intention2	0.875	.123	8.447			
	intention3	0.784	.132	9.670			
$\chi^2=225.831$, $p=0.022$, $\chi^2/df=225.831$, $GFI=0.977$, $CFI=0.901$, $TLI=0.971$, $IFI=0.977$ $RMR=0.034$, $RMSEA=0.035$							

<Table 4> Correlation Coefficients Between Constructs

Variables	Security	Compatibility	Perceived usefulness	Perceived ease of use	Psychological benefit	Intention to use
Security	.746					
Compatibility	.260**	.775				
Perceived usefulness	.453**	.487**	.836			
Perceived ease of use	.429**	.535**	.649**	.858		
Psychological benefit	.307**	.461**	.610**	.477**	.792	
Intention to use	.085	.085	.041	.129	.224**	.837

Note: 1. Diagonal line is square root of AVE and under the diagonal line is correlation coefficients.
2. p* <.05, p** <.01, p*** <.001

<Table 5> Results of Hypothesis Path

	Path	Standardized Coefficient(β)	S.E.	t-value	sig.
H1	Security → Perceived usefulness	.360	.087	4.122	p < .001
H2	Security → Perceived ease of use	.373	.099	3.775	p < .001
H3	Compatibility → Perceived usefulness	.377	.074	5.090	p < .001
H4	Compatibility → Perceived ease of use	.496	.089	5.564	p < .001
H5	Perceived usefulness → Psychological benefit	.560	.105	5.323	p < .001
H6	Perceived ease of use → Psychological benefit	.175	.080	2.716	p < .05
H7	Psychological benefit → Intention to use	.241	.098	2.459	p < .05

5. Conclusion

The purpose of this study was to investigate ways to influence Chinese women consumers regarding the use of mobile payment services. For this purpose, the authors examined antecedents of the intention to use mobile payment services based on TAM (Davis, 1989; Venkatesh & Davis, 2000). In addition, security and compatibility were examined as antecedents of perceived usefulness and perceived ease of use. Moreover, psychological benefits were suggested and examined as an important construct to mediate between the usefulness and the ease of use and intention to use.

According to the results of this study, security and compatibility positively influences on the usefulness and the ease of use, which have an influence on the psychological benefits of mobile payment services, which in turn have a positive influence on the intention to use mobile payment services.

The theoretical and practical implications of this study are as follows. Most of all, this research empirically explained how Chinese women consumers adopt mobile payment services based on TAM. Although mobile payments became one of the most common payment methods in recent years, there is not enough research about the adoption of mobile payment services (Dahlberg et al., 2015). This study contributes to the academic understanding of consumers' adoption of mobile payment services.

Moreover, instead of settling for TAM, the current study introduced security and compatibility as antecedents of the usefulness and the ease of use. This introduction not only enhances the accuracy of the adoption model of mobile

payment services, but also enriches TAM-related literature.

In addition, this study revealed the mechanism of the effect of the usefulness and the ease of use on the intention to use by demonstrating the mediating role of psychological benefits. In particular, even though consumers pursue psychological benefits as well as economic value, psychological benefits have not been researched enough compared to economic value. This study contributes to an academic understanding of the less-highlighted psychological benefits. In future research, psychological benefits are expected to be studied as an important variable to explain the adoption of new technology, including mobile payment services.

From a managerial standpoint, this study provides potentially valuable insights for marketers of retailing companies who are motivated to attract more consumers. In order to induce potential consumers to use mobile payment services, marketers need to enhance the perceived security and compatibility of mobile payment services. This will lead to the intention to use mobile payment services by perceived usefulness, perceived ease of use, and psychological benefits. In particular, marketers should provide psychological benefits from using mobile payment services. For example, marketers need to communicate target consumers that when consumers use mobile payment services they can get psychological benefits such as pleasure, curiosity, interest and entertainment.

The current research has some limitations. First, this study focused on young Chinese women. Even though these participants are one of the major consumer segments of mobile payment services in China, further study using other samples could enhance the generalization of our findings.

Also, the current study was conducted in China (i.e., an interdependent culture) where people are more conscious of others and are likely to follow the behavior of group members compared to people in Western countries, including the United States and the EU (i.e., independent culture). Given these cultural differences, future research is required to examine the moderating role of cultural differences in the adoption of mobile payment services.

References

- Agarwal, R., & Prasad, J. (1998). A conceptual and operational definition of personal innovativeness in the domain of information technology. *Information systems research, 9*(2), 204-215.
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological bulletin, 84*(5), 888.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin, 103*(3), 411.
- Ashworth, L., Darke, P. R., & Schaller, M. (2005). No one wants to look cheap: Trade-offs between social disincentives and the economic and psychological incentives to redeem coupons. *Journal of Consumer Psychology, 15*(4), 295-306.
- Bawa, K., & Shoemaker, R. W. (1987). The coupon-prone consumer: some findings based on purchase behavior across product classes. *The journal of marketing, 99*-110.
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS quarterly, 35*1-370.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York, NY: Wiley.
- Brancheau, J. C., & Wetherbe, J. C. (1990). The adoption of spreadsheet software: Testing innovation diffusion theory in the context of end-user computing. *Information systems research, 1*(2), 115-143.
- Buellingen, F., & Woerter, M. (2004). Development perspectives, firm strategies and applications in mobile commerce. *Journal of Business Research, 57*(12), 1402-1408.
- Butz, A., Baus, J., Krüger, A., & Lohse, M. (2001, January). A hybrid indoor navigation system. In *Proceedings of the 6th international conference on Intelligent user interfaces* (pp. 25-32).
- Chandon, P., Wansink, B., & Laurent, G. (2000). A benefit congruency framework of sales promotion effectiveness. *Journal of marketing, 64*(4), 65-81.
- Chau, P. Y. & Hu, P. J. H. (2001). Information technology acceptance by individual professionals: A model comparison approach. *Decision sciences, 32*(4), 699-719.
- Chen, Y., & Shang, Y. F. (2018). Factors Influencing Users' Word-of-Mouth Intention Regarding Mobile Apps: An Empirical Study. *The Journal of Industrial Distribution & Business, 9*(1), 51-65.
- Claeys, C., Swinnen, A., & Abeele, P. V. (1995). Consumer's means-end chains for "think" and "feel" products. *International Journal of Research in Marketing, 12*(3), 193-208.
- Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. *Electronic Commerce Research and Applications, 14*(5), 265-284.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly, 3*19-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management science, 35*(8), 982-1003.
- Financial Service Report of People's Bank of China NO.1 2017.
- Gerpott, T. J., Rams, W., & Schindler, A. (2001). Customer retention, loyalty, and satisfaction in the German mobile cellular telecommunications market. *Telecommunications policy, 25*(4), 249-269.
- Gunasekaran, A., & Nagi, E.W.T. (2003). The Successful Management of a Small Logistics Company. *Journal of Physical Distribution & Logistics Management, 33*(9), 825-842.
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *The Journal of Marketing, 60*-72.
- Han, S. H. (2011). A Study on Consumer Preference and Purchase Intention to Smart Phone: Focused on Perceived Cost and Expected Benefit. *Journal of Korean Home Management Association, 29*(2), 23-37.
- Johnson, V. L., Kiser, A., Washington, R., & Torres, R. (2018). Limitations to the rapid adoption of M-payment services: Understanding the impact of privacy risk on M-Payment services. *Computers in Human Behavior, 79*, 111-122.
- Kazemi, A., Javanmard, H., & Mohammadi, R. (2017). Determining the Relationship between the Effective Factors of Strategic Behavior: A Case Study for Social Insurance Company of Tehran. *The East Asian Journal of Business Management, 7*(1), 5-12.
- Kim, S. W., Muna, S. K., & Kang, H. T. (2007). Understanding Consumers' Intention to use Mobile Payment Services. *Korean Institute for Industrial Economics, 20*(4), 1739-1766.
- Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information systems research, 13*(2), 205-223.
- Kruger, S. J., & Welman, J. C. (2001). *Research methodology for the business and administrative sciences*. Cape Town: Oxford University Press South

- Africa.
- Lee, C. H. M., Cheng, Y. W., & Depickere, A. (2003). Comparing smart card adoption in Singapore and Australian universities. *International Journal of Human-Computer Studies*, 58(3), 307-325.
- Lee, H. J., & Huh, M. Y. (2017). *A Study on the Relationship of Benefits, Quality, and Continuity Intention in Community Services*. 8(4), 53-63.
- Liao, S., & Ze, Y. (2006). The effects of nonmonetary sales promotions on consumer preferences: The contingent role of product category. *Journal of American Academy of Business*, 8(2), 196-203.
- Liébana-Cabanillas, F., Marinkovic, V., de Luna, I. R., & Kalinic, Z. (2018). Predicting the determinants of mobile payment acceptance: A hybrid SEM-neural network approach. *Technological Forecasting and Social Change*, 129, 117-130.
- Lichtenstein, D. R., Netemeyer, R. G., & Burton, S. (1990). Distinguishing coupon proneness from value consciousness: An acquisition-transaction utility theory perspective. *The Journal of Marketing*, 54-67.
- Long, S. G. J., Park, U. Y., & Lee, J. H. (2018). A Study on the User's Sustainable Intention of Mobile Tourism: Focused on Chinese Tourists Visiting Korea. *The International Journal of Industrial Distribution & Business*, 9(5), 47-62.
- Mallat, N., Rossi, M., Tuunainen, V. K., & Oorni, A. (2006, January). The impact of use situation and mobility on the acceptance of mobile ticketing services. *Proceedings of the 39th Annual Hawaii International Conference*, 2. DOI:10.1109/HICSS.2006.472
- McDougall, G. H., & Levesque, T. (2000). Customer satisfaction with services: putting perceived value into the equation. *Journal of services marketing*, 14(5), 392-410.
- Moon, Y. E., & Jung, E. J. (2004). A study on the determinants of intention to use mobile banking. *The Journal of information systems*, 13(2), 89-117.
- Na, Y. K., & Hong, B. S. (2008). The effect of the perceived risk, trust of internet shopping on the perceived usefulness, attitude, and purchase intention of the fashion merchandise. *Journal of the Korean Society of Clothing and Textiles*, 32(5), 834-845.
- Peter, J., & Olson, J. C. (1987). *Consumer behavior: Marketing strategy perspectives*. Reno, NV: Better World Books: West.
- Plouffe, C. R., Hulland, J. S., & Vandenbosch, M. (2001). Richness versus parsimony in modeling technology adoption decisions—understanding merchant adoption of a smart card-based payment system. *Information systems research*, 12(2), 208-222.
- Price, L. L., Feick, L. F., & Guskey-Federouch, A. (1988). Couponing behaviors of the market maven: profile of a super couponer. *Advances in Consumer Research*, 15(1), 354-359.
- Reibstein, D. J., & Traver, P. A. (1982). Factors affecting coupon redemption rates. *The Journal of Marketing*, 102-113.
- Rogers, E. M. (1983). Diffusion of innovations. *New York: Free Press*, 1, 14-15.
- Seo, Y. S., & Lee, S. S. (2014). A Study on Consumer Satisfaction and Willingness to Recommend by the Innovation Diffusion Theory: Comparison on Different Technology Adoption Stages of Smartphone. *consumption culture commerce*, 17(1), 89-111.
- Suh, B., & Han, I. (2002). Effect of trust on customer acceptance of Internet banking. *Electronic Commerce research and applications*, 1(3-4), 247-263.
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information systems research*, 6(2), 144-176.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46(2), 186-204.
- Wu, J. H., & Wang, S. C. (2005). What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & management*, 42(5), 719-729.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *The Journal of marketing*, 52(3), 2-22.