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STUDY OF BEHAVIORAL INTENTIONS AMONG CHINESE AND SOUTH KOREAN M-COMMERCE CONSUMERS

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ABSTRACT

The usage of mobile phones and Internet around the world has grown nowadays, this is causing a continuous increase in adoption of M-commerce. Users' intention of M-commerce can be considered through theoretical and practical understanding of factors which are m-commerce ubiquity, habits and others related to cultures and demography. Firstly, the availability of mobile phones and internet can support using M-commerce of consumers. This research uses ubiquity as a multidimensional construct and measure it through Immediacy, Portability, Continuity, Search-ability across China and South Korea. Current study attempts to fill out the research gap by considering to consumer behaviors in using M-ecommerce across China and South Korea through evaluating some more key factors that drive M-commerce such as perceived usefulness and perceived ease of use.

Our findings indicate both similarities and differences among consumers in different markets which are different in stages of M-commerce readiness. Regarding the developing country, China has different factors that impact M-commerce usage, are mostly assumptions about contextual characteristics, included technology readiness stage, customer characteristics and so on. For example, the effect of ubiquity on intention to use M-commerce is remarkably greater for customers in China compared with those who are in South Korea. Since in China, the technology is developing so that there are different types of accessibility in this country for Internet and usage of M-commerce. Basing on our result, we suggest some ideas for international marketing strategies. Our results reveal that depending on the stage of M-commerce readiness, users in China and South Korea assign greater importance to different factors. This implicated that a simple standardization strategy will not work well. In South Korea, we should focus on building habit by highlighting M-commerce benefits. M-retailers in China should be aware of the likelihood as how to use M-commerce rather than using it habitually.

Keywords: Developed Versus Developing Markets, Mobile Commerce, Readiness, Ubiquity, China, South

Korea

1. INTRODUCTION

Nowadays, mobile phones and the Internet utilization all over the world has developed, causing a step-up in e-commerce and M-commerce adoption. M-commerce has been described as "any transaction with a monetary value that is conducted via a mobile telecommunications network" [1]. In 2010, there were only 1,991 million internet users, and that climbed dramatically to 3,385 million users in 2016 (*Internet users by region and country, 2010-2016* Internet Telecommunication Union 2017), including the high number of Chinese users 750 million people (53% population) and 47 million users (93%

population) in South Korea. According to mobile phone users, particularly in South Korea and China, the number of smartphone users has been increasing gradually over the past 10 years [2]. Due to this, the demand for using the Internet to do businesses using the smartphone around the world has increased sustainably.

The ubiquity of M-commerce, routine and other custom and demographics can take into account the intention of M-commerce users through a theory and practice. Firstly, the availability of mobile phones and the internet can support using the M-commerce of consumers. There have been few studies that have examined the effect of ubiquity on the desires of

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national

[6]; [7]).

customers and the practical use of M-commerce [3]. Through Immediacy, Portability, Continuity, Search

ability throughout China and South Korea, this research utilizes ubiquity as a constructional multi-

dimension and measures it. Secondly, in terms of

habits, M-shopping habits in general can be

considered "an automatic behavior response that is

triggered by a situational stimulus without a

cognitive analysis process due to the learned

association between the shopping behavior and

satisfactory results" [4]. Lastly, the dimensions of

Collectivism, and demography such as age, gender, and internet plan will affect M-commerce usage [[5];

In developing countries, there is an excellent

opportunity for telecommunication companies and

M-commerce businesses, and particularly, China has

a massive number of internet users, as mentioned

above, and big size of population (over 1 billion

people). Moreover, developed countries such as

South Korea own breathtaking technologies.

According to Euromonitor International's Digital

Connectivity Index, South Korea reached 41.75

scores, which means the lead in terms of the digital

readiness of South Korea. The infrastructure for the

internet, broadband, and telecommunication has

been expanding, and it is enhancing the speed of

internet service. Thus, the adoption of M-commerce

might increase over time in those countries, but there

are some studies such as [8], [9] & [10] states that

mostly it was lower and slower than anticipated.

Besides, [11] showed that the defined utility and ease

of use have a major impact on the behavioral intent

of M-commerce. Hence, defining the essential

elements that affect the intent of users to use M-

Recent research of [12] indicated that M-

commerce Ubiquity, habits and cultures affect the

readiness of M-commerce purpose of use and actual

use in some developing and developed countries.

There are some drawbacks here, however, and the

study is small as it consists of only four countries and

has not explicitly evaluated the effect of M-

commerce readiness on consumer behavior.

Moreover, there are no studies making the

comparison between South Korea and China. The

present proposed study therefore aims to fulfill the

research difference by reviewing consumer

behaviors in using M-commerce throughout China

and South Korea by assessing some more critical

commerce across different countries is important.

culture

Hendrik (Geert) Hofstede,

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aspects driving M-commerce, such as helpfulness and ease of use perception.

The study will be structured as follows. The next part is about the introduction of the theoretical context as a review of the literature. The third section form the new research model and hypotheses as well as data gathering and analysis. We will discuss the implications of results in the fourth section. Finally, we conclude the research paper by the last part with future research recommendations.

2. LITERATURE REVIEW

M-commerce is defined as using mobile electronic devices to conduct purchases, which is quite similar to e-commerce as regards the additional cost of using Internet connection, offering shopping the experiences to consumers in different locations. Consumer behavior is driven by the mobile telecommunication usage [13], which is considered as M-commerce nowadays. The growth of smartphone usage and mobile phone internet users are one of the various factors that caused this phenomenon. According to [2], the number shows that the total number of users of smartphones globally is growing from 2014 to 2020 and that the estimate for 2019 and 2020 will hit 2, 71 billion and 2, 87 billion respectively. According to the January 2018 [14] survey, total global M-commerce sales increased to over \$1,357 trillion last year by 40.3 billion, comprising 6.0 percent of total retail spending. As being noticed, China, Japan, South Korea, the UK, and the US have the significant number of mobile expenditures that enables customers feel more comfortable to shop on their smartphones compared to other devices. Moreover, in some certain areas, other fabulous options of lower-cost items like apparel and household goods, which promotes purchasing. Furthermore, in terms of psychology, M-commerce adoption is driven by behaviors of customers that have been influenced by particular traits (personal connection, creativity, risk avoidance, and privacy concerns) [15], because consumers believe that mobile phones are an indispensable part of their lives. Other research assessed the role of personal attachment and mobile phone use, including Korean Consumers investigation studies [16], and U.S. youth consumers [17]. In addition, [11] came up with conclusion that social influences and customization has a noticeable impact on perceiving utility while perceiving ease of use is affected by mobility, customization and personal innovativeness, all of which have a



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the effect of ubiquity on the desires of customers and the practical use of M-commerce. [3]. Many of the studies concentrate on the single viewpoint of the emotional emotions of the customer with respect to m-shopping, and less studies reflect on the dual viewpoint of personal characteristics and mobile shopping characteristics. In this research, the emphasis is on the different stages of readiness, diverse cultural background, and different development levels of the economy in two countries, M-commerce was divided into two separate groups: (1) early readiness (China) and (2) advanced readiness (South Korea). As the result, the impact of ubiquity (on the M-commerce usage intention has the different levels in two groups.

The impact of M-commerce characteristics on usage intention was noticeably higher for customers at an early stage of readiness than those at an advanced stage. However, in only countries where the M-commerce readiness stage has been advanced, habit moderated unfavorably the connection between ubiquity and motive of M-commerce usage. The summary of this study is mentioned in table 1.

2.1 M-commerce characteristics that impact purchase intention

Mobile Commerce is widely identified as M-Commerce, basically it is every e-commerce performed in a wireless context, particularly through the Internet [25]. The distinct characteristics make M-commerce different from E-commerce are mobility and reach. Consumers can make real-time interaction with commercial and other platforms wherever they take place to be (mobility). People can be reached with M-Commerce anytime (reach).

According to [26], the Utilitarian and Hedonic benefits positively lead users' intention to adopt M-Internet. In contrast, monetary and non-monetary costs are barriers to interfere with users' intention to adopt M-internet. Costs affect customers more than benefits. High Monetary cost reduces the perceived value.

Firstly, the M-commerce allows the user to log in to the Web services, and purchase products anytime and anywhere, namely Immediacy [27]. The ubiquity brings the convenience to consumers to generate more sales [28]. Secondly, mobile shopping also has the personalized information push, that means that means marketers can increase their revenue by making customized marketing information accessible to customers based on their

valuable contribution to the behavioral intention of M-commerce users.

As the rapid growth in M-commerce and become our daily shopping necessity channel, the research on this topic has been extended with deeper according the ever-changing context technology world. According to [18], factors relationships such as perceived usefulness, perceived ease of use, personal innovativeness, subjective norms, behavioral control and intention play a key role for consumers to adopt mobile commerce. Based on the extended theory of planned behavior from Yang, perceived satisfaction was the most powerful determinant that generated a favorable attitude towards mobile shopping. The findings confirmed that the conduct of mobile shopping adoption by consumers varies in degrees of technology traits [19]. It has been shown that ubiquitous perception, perceived personalization and perceived risk have a huge effect on the acceptance of mobile shopping by consumers [20]. Researchers have shown that perceived benefit, perceived ease of use, emotional perceptions, and perceived value all have major impacts on mshopping behavioral intent [21].

Kao came up with factors such as: trust, payment security concern, and brand preferences has major impact on stable m-shopping development. Kao set up a research framework focused on the BATE model and cultural aspects and found that the trust in purchases has a big effect on the acceptance of mobile shopping by customers and that culture plays a key role in the regulation [22]. Other research from Yang pointed out mobile purchase intention are influenced by two groups of aspects (1) mobile commerce: interactivity, convenience, and interest as independent variables and (2) brand loyalty and price sensitivity are set as adjustment variables [23].

In addition, according to [24], the two most important dimensions in eSQ methodology that not only impacts service quality evaluation, but also has positive correlation to customer perceived value and loyalty intention. On the other hand, hedonic aspect plays as the entertainment related purpose when shopping online has the distinct benefits for individuals. On the other word, fun and pleasure aspects may not be relevant to all customers in terms online shopping.

In brief, there are various studies of consumers' intention engaging in mobile-commerce on the subjective feelings, but only a few have examined

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personal tastes and location. That means purchase decision is accelerated when the offering is matching with the personalized information [29]. Thirdly, social media has given the e-commerce a new definition. Through social media, brands and consumers can create, explore, and share product information. Besides, brands can leverage social media for better brand communication. An important part of ensuring the success of mobile commerce is the easy accessibility of SNS systems that connect mobile shopping services [30]. The summary of this study is mentioned in table 1.

As mentioned before, China has one of the world's largest population of mobile phone users [2]. China has been a manufacturing economy for years, but it has transitioned to consumption, particularly online spending lately [31]. Accordingly, to about twothirds of China's e-commerce occurred via phone in 2015. This was the first smartphone company that accounted for most of China's e-commerce revenues. Although online payments are still growing in Western countries, this sector in China has risen dramatically and was 50 times larger than in 2017 [32]. In summary, in China, M-commerce is flourishing and continues to expand steadily. For example, Alibaba is the leading mobile space, with Alibaba hitting 265 million active monthly users on its mobile commerce apps in 2014. According to [33], with 86 percent share of total mobile GMV (gross merchandise volume), Alibaba is leading the China mobile commerce market.

As M-commerce is evolving in China, users are increasingly purchasing overseas products. "China made up 67.1% of M-commerce sales worldwide in 2017, driven by its mobile-first internet audience. Sales are expected to nearly triple from \$909.93 billion to \$2.595 trillion between 2017 and 2021" [14]. According to [34], the study revealed that satisfaction, utility, and ease of use perception have a significant impact on the M-commerce continuity intentions of consumers through the use of extended ECM template. Perceived value can be defined as "the degree to which a person believes that using a particular system would enhance his/her job performance", and ease of use perception definition is described as "the degree to which a person believes that using a particular system would be free of effort" [35]. This dimension of perceived userfriendliness can be regarded as convenience and usability for customers as it makes it easy for them to participate in exchange, which is part of the ubiquitous essence of M-commerce [36] which is one of the factors in our research model. As with

[13], satisfaction is related to loyalty in mobile telecommunications and the influence of satisfaction on loyalty is based on cultural differences that will be known as one of the control variables in the current research model in eight different countries.

Regarding South Korea, South Korea is an ideal target market for online expansion since it is one of the wealthiest nations with the fourth largest in Asia by GDP. It is also a technologically advanced country with an incredibly connected online, with 84% of its residents being able to access the Internet. Besides, the penetration rate for smartphones among mobile phone users is over 70%, and M-commerce increased doubled in 2014 [37]. M-commerce market displays remarkable growth thanks to the penetration of M-Internet. Mobile shopping transactions totaled 47.84 trillion won in 2017, a 34.6 percent increase compared to 2016, and the number of M-Internet users in 2017 was 40.18 million people, increasing significantly over time and predicted to 42.97 million users in 2022 [2]. For example, Gmarket launched the nation's first mobile commerce app in 2009 and then has been an annual growth of 30 percent [38]. "Considering the fact, we can expect that more and more online shopping will be made through mobile devices in the near future" [39]. Looking at the reasons why Mcommerce grew, M-commerce is built from ecommerce with new technological elements such as handheld devices and wireless Internet, and key factors affect the customer's intention to use Mcommerce are the reliability of content and the payment process [40].

Since M-commerce developed in both developing and developed nations, some studies were comparing M-commerce in both types of economies like [12]. By examining the different stages of readiness, diverse cultural background, and different development levels of the economy in four countries, M-commerce was divided into two separate groups: (1) early readiness (developing countries) and (2) advanced readiness (developed countries). The result showed that the impact of ubiquity on the M-commerce usage intention was noticeably higher for customers at an early stage of readiness than those at an advanced stage. However, in only countries where the M-commerce readiness stage has been advanced, habit moderated unfavorably the connection between ubiquity and motive of M-commerce usage.

The current study will therefore be based on the above-mentioned factor analysis to identify the key

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elements that affect M-commerce behavior in China and South Korea, and then compare the behavioral intentions of M-commerce customers and actual actions using a model from previous comparison research.

3. RESEARCH METHODS AND ANALYSES

3.1 Data collection

Two groups of students from South Korea and China collected data for this research via a professional offline panel. Respondents are from an International School of Business located in South Korea. The research obtained 308 respondents, including 74 from China and 234 from South Korea, as shown in Table 2.

3.2 Respondents demographic profiles

There are 308 in a total of respondents, including 57% (China) and 47% (South Korea) were female, 43% (China), and 53% (South Korea) were male. levels varies Education from High school/Trade/Technical school (around 6% for China, 8% for South Korea), Some college (8% for China, 56% for South Korea), College graduate (80% for China, 31% for South Korea) to Graduate school (6 % for China, 5% for South Korea). About 91% (China) vs. 23% (South Korea) were in 16-24 age group, 7% (China) vs. 38% (South Korea) were in 23-34 age group, only 1 % (China) vs. 21% (South Korea) were in 35-44 age group, 1% (China) vs. 17% (South Korea) were in 45-54 age group, and 17% (South Korea) vs. none of them (China) were in the group of age 55 or above. Thus, respondents from China were in younger sectors compared to those from South Korea. Around 19% (China) vs 32% (Korea) had an annual average income under \$10,000. Approximately 24% (China) vs. 25% (Korea) had an average annual income of around \$10,000 and \$29,000, whereas 27% (China) vs. 24% (Korea) had an annual average income of between \$30,001 and \$49,999 and just 6% (China) vs. 5% (Korea) had an annual average income of between \$50,000 and \$69,999. Similarly, solely about 8% of both China and Korea had an annual average income between \$70,000 and \$ 99,999, whereas the figure of \$100,000 or over was about 16% (China) and 6% (Korea). The study conducted a chi-square test to measure the disparity in demographics between the chosen focus groups from the economies of China and South Korea. Results (X2=0.16 for gender X2=0.00 for level of education, X2=0.00 for age,

X2=0.04 for level of income: measured at 0.01 level of meaning) showed that two groups are not statistically different except for levels of education and age.

3.3 Analysis of electronic devices usage behaviors

As shown in Table 3, about 68% (China) used mobile phones to browse Websites more than 10 hours per day while more than 78% (Korea) used mobile phones to browse Websites less than 10 hours per day. The result also showed that, on average, about 65% (China) had been used personal computers for 1-5 years, whereas the percent for Korea was around 51%. It is also found that, about only 4% (China) vs. 45% (Korea) respondents used Smartphone for 11 years or over, including around 53% (China) used Smartphone for online purchasing within 3-5 years while the majority of Korea (around 62%) used Smartphone to shop online within 0.5-2 years. Besides, the figures for online shopping were approximately 78% (China) vs. 50% (Korea) for 3-5 years and over. Taking the consideration both Table 2 and Table 3, it can be seen clearly that since respondents from China are younger than Korea, even though Chinese have been using smartphones just for a shorter time compared with Korean, Chinese seemly purchased online by Smartphone for a longer time than Korean.

This study uses quantitative analysis to evaluate the structural models using partial least squares (PLS) modeling as this modeling is known as a simplified method with minimizing the residual variances of the PLS, which has been shown to be effective against inadequacies. Besides, the PLS-SEM approach has obtained an increase in the popularity of empirical research in international marketing [41].

The study tested convergent validity using individual item reliability and construct reliability, according to [42] recommendations. Almost AEV scores exceed the value, which is recommended 0.5 and the performance values for the composite were above the 0.5 limit used [43]. This shows that our measures are relatively reliable show in table 4. In addition, the analysis tests discriminating validity by using the method of cross-loading [44] and calculating the loading of each element on its construction and other constructs. The result showed that each object has a higher load than other constructs. www.jatit.org



Table 1 Previous Studies by Chinese and South Korean Scholars on The Characteristics of Mobile Shopping

	China		S	outh Korea
Lu et. Al. (2012)	Zhang, Zhang R (2012)	Jang (2015)	Park (2015)	Hew, J. J., Lee, V. H., Ooi, K. B., & Lin (2016)
Ubiquity	Immediacy	Mobile commerce: interactivity, convenience, interest	Personalized information	Social Media factor
Individualization	Ubiquity	Brand loyalty		
Perceived risk		Price sensitivity		

			China	Sc	outh Korea
	Female	42	57%	111	47%
Gender	Male	32	43%	123	53%
	High School/Trade/technical School	4	5.41%	18	7.69%
	Some College	6	8.11%	132	56.41%
	College Graduate	59	79.73%	73	31.20%
Education Level	Graduate School	4	5.41%	11	4.70%
	16-24	67	90.54%	53	22.65%
	25-34	5	6.76%	87	37.18%
	35-44	1	1.35%	48	20.51%
	45-54	1	1.35%	38	16.24%
Age	55 or over	0	0.00%	8	3.42%
	Under \$ 10,000	14	18.92%	76	32.48%
	\$ 10,001 - 29,999	18	24.32%	58	24.79%
	\$ 30,000 - 49,999	20	27.03%	56	23.93%
	\$ 50,000 - 69,999	4	5.41%	12	5.13%
Annual Household	\$ 70,000 - 99,999	6	8.11%	19	8.12%
Income	\$ 100,000 or over	12	16.22%	13	5.56%

Table 2. Summary of Respondents Demographic Profile



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		China		South Korea	
	1-5 years	48	64.86%	42	17.95
II h	6-10 years	18	24.32%	77	33%
personal computers?	11 years or over	8	10.81%	115	49%
	1-5 years	35	47.30%	45	19.23%
How long have you have using	6-10 years	35	47.30%	85	36.32%
Smartphone?	11 years or over	3	4.05%	104	44.44%
	0.5 - 1 year	4	5.41%	41	17.52%
	1-2 years	12	16.22%	77	32.91%
How long have you been using	3-5 years	40	54.05%	66	28.21%
purpose?	More than 5 years	18	24.32%	50	21.37%
	0.5 - 1 year	5	6.76%	78	33.33%
	1-2 years	15	20.27%	67	28.63%
How long have you been using	3-5 years	39	52.70%	50	21.37%
purpose?	More than 5 years	12	16.22%	39	16.67%
	Less than one hour	2	2.70%	59	25.21%
	1-5 hours	3	4.05%	72	30.77%
	6-10 hours	18	24.32%	52	22.22%
On the evenese here meny here	11-20 hours	10	13.51%	26	11.11%
per week do vou browse the	21-40 hours	17	22.97%	18	7.69%
Websites using Smartphones?	Over 40 hours	23	31.08%	5	2.14%

Table 3. Summary of Respondents Electronic Devices Usage

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South South China Korea China Korea AEV AEV AEV AEV Usage habit 0.590 0.316 Individualism 0.696 0.527 CR 0.896 CR 0.649 CR 0.816 CR 0.689 AEV AEV AEV AEV 0.502 0.500 0.761 0.530 Intention Collectivism CR 0.927 CR 0.693 CR 0.575 CR 0.665 AEV AEV AEV AEV .905 0.603 0.571 Ambiguity 0.577Actual usage CR 0.844 CR 0.950 CR 0.724 CR 0.749 AEV AEV AEV AEV 0.833 0.364 0.582 0.570 Immediacy Internet Plan CR 0.952 CR 0.695 CR 0.806 CR 0.726 AEV AEV AEV AEV 0.756 1.000 Continuity 0.383 Risk 1.000 CR 0.903 CR 0.647 CR 1.000 CR 1.000 AEV AEV AEV AEV Portability 0.7940.364 1.000 1.000 Age CR 0.939 CR 0.694 CR 1.000 CR 1.000 AEV AEV AEV AEV Searchability 0.839 0.444 1.000 1.000 Gender CR 0.940 CR 0.704 CR 1.000 CR 1.000

Table 4: Me	easure Mode	el with Facto	or Loadings
10000 1. 1110	contro mono		JI Doudings

Second Order latent construct	China	South Korea
Ubiquity	AEV 0.694	AEV 0.199
Continuity	0.926	0.671
Immediacy	0.933	0.686
Portability	0.954	0.802
Searchability	0.909	0.705



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	C	china	Korea	
	Path	T-value	Path	T-value
Intention to Use M-commerce				
Ubiquity> Intention	0.02	0.14	0.14	0.87
Usage habit -> Intention	0.4	1.32	-0.01	0.05
Control Variables				
Collectivism -> Intention	-0.15	0.85	-0.13	0.96
Individualism -> Intention	-0.01	0.07	0.22	1.44
Ambiguity -> Intention	0.2	1.05	-0.13	0.93
Risk -> Intention	0.17	1.14	0.11	1.1
Age -> Intention	-0.07	0.49	-0.11	1.02
Gender -> Intention	0.03	0.25	0.042	0.41
Internet plan -> Intention	0.23	1.27	0.043	0.31
Actual M-commerce Usage				
Ubiquity -> Actual usage	0.01	0.1	-0.06	0.38
Usage habit -> Actual usage	0.23	1.98	0.08	0.47
Intention -> Actual usage	0.3	1.34	0.15	1.04
Control Variables				
Collectivism -> Actual usage	0.16	1.72	0.01	0.03
Individualism -> Actual usage	-0.04	0.35	-0.15	1.02
Ambiguity-> Actual usage	0.16	1.09	0.02	0.15
Risk -> Actual usage	0.12	1.22	0.06	0.53
Age -> Actual usage	-0.14	1.23	0.02	0.22

Table 5: Structure Model Estimates

Interaction

Gender -> Actual usage

Internet plan -> Actual usage

Ubiquity*Habit> Intention	-0.24	0.93	0.34	0.65
R [^] 2 Intention	59%		15%	
R ² Actual	53%		9%	
Q ² Intention	0.18		0.07	
Q^2 actual	0.39		0.06	

0.02

0.09

0.32

0.98

-0.03

0.23

0.3

1.84

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3.1 Control Variables

Being similar with previous researches in international marketing, six control variables were included in this study, which are uncertainty avoidance, collective-individual societies ([45]; plan [47], gender, and age [41]. Since only those dimensions are highly linked to the interest structure should be incorporated into the investigation [48], only six above variables were selected by research. According to [5] and [6], culture has a considerable impact on consumers' behaviors. In addition, the mobile internet plan also has a significant impact on the rate of mobile internet use, impacting the readiness of M-commerce [47].

The results of the study shown in table 5 indicate that individualism has a weak effect on China's plan to use M-commerce, but the impact in South Korea is relatively positive and stronger. (China $\rightarrow = -0.01$, t-value=0.07; South Korea $\rightarrow = 0.22$, t-value=1.44) while collectivism has a negatively affected intention to use M-commerce (China $\rightarrow = -0.15$, tvalue= 0.85, South Korea $\rightarrow = -0.13$, t-value= 0.96), which is different from the previous research; it was positive effect in all countries (Australia, United States, India, and Pakistan) [12]. On the other hand, the Internet plan has a significant positive impact at China and South Korea's intention to use Mcommerce (China $\rightarrow = 0.23$, t-value=1.27, South Korea $\rightarrow = 0.043$, t-value=0.31).

3.2 Structural Model

Direct effects: The research provides strong support for the linkage between Ubiquity to Intention. The corresponding track coefficients are important, but according to Habit in the unexpected direction. Ubiquity and Habit are essential and positive predictors of the intention of customers to use M-commerce for China, but Habit is not a relevant and negative predictor of South Korea's intention to use M-commerce (\rightarrow = - 0.01, tvalue=0.05). In term of actual M-commerce Usage, the result shows that intention is a significant and positive predictor of actual M-commerce usage (China $\rightarrow = 0.3$, t-value=1.34, South Korea $\rightarrow = 0.15$, t-value=1.04) while The effect of ubiquity on real use in both countries is not relevant (China $\rightarrow = 0.01$, t-value=0.1, South Korea \rightarrow =- 0.06, t-value=0.38). In addition, the link between habit and actual usage is significant for China ($\rightarrow = 0.23$, t-value=1.98), but not significant for South Korea ($\rightarrow = 0.08$, tvalue=0.47).

3.3 Interaction effects

The result shown in table 5 illustrated that the connection between ubiquity and intention to use M-commerce is negatively moderated by Habit in China where the usage of M-commerce is at the early stage (\rightarrow = -0.24, t-value=0.93), but it is positively moderated by Habit in South Korea where people are at advanced M-commerce readiness stage (\rightarrow = 0.34, t-value=0.65).

The result shows that the variance explained (R2) is typically high in the endogenous variables and acceptable in China. For Intention, the R² is from only 15% (South Korea) to 59% (China). Similarly, the R^2 for actual usage varies even more widely. which is just 9% of South Korea and 53% of China. This indicates that, for M-commerce customers in South Korea, the actual usage is not determined, but at least Intention is determined by factors beyond those identified in the research scheme. Lastly, Stone-Geisser Q² value is calculated by using a blindfolding technique. The Q2 offers a gage of the predictive validity of track models for a particular endogenous latent reflective structure. As a result, shown in Table 5, all Q² values are more significant than zero, which are indicative of predictive relevance, satisfactory predictive significance of the endogenous constructs.

4. DISCUSSION

To researchers and practitioners this research has important theoretical and some practical implications. With respect to developing countries, China has different factors influencing the use of Mcommerce, which are mainly contextual perceptions, including technological readiness, consumer preferences, and more. For instance, the effect of ubiquity on Chinese customers ' willingness to use M-commerce is significantly greater than in South Korea. Since the innovation is evolving in China, various types of Internet access and use of Mcommerce are available in this country. Some of them can access Mobile Internet and be familiar with it, but some are not. However, in South Korea, most Koreans could access Mobile Internet and use it as usual, so they would not decide to use M-commerce by whether Mobile Internet is available or not. Instead, their habits strongly affect the intention of using M-commerce and the actual use of Mcommerce. It can be explained from the role of practices in influencing technology usage behaviors.



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Further, in China online shops should take into consideration of their early readiness period because of the customers concern of how to get to use the Mcommerce for the first time rather than using it daily. So, the M-retailers should focus on greasing the wheels for customers to reach and use M-commerce efficiently as soon as possible (ease of use). For example, M-retailers can guide consumers in using M-commerce, Mobile applications to purchase through different communication channels, such as making videos of guidelines and publish them on media channels that customers usually use. Besides, M-retailers can run promotional campaigns to reinforce usage and acceptance of M-commerce by telling them about benefits that they can receive from M-commerce.

In mobile developers' perspectives, they should enhance the applications to easy to navigate with clear instructions of using. Moreover, developers should cooperate with telecom companies to guide customers in installing the shopping application. Some promotion campaigns can start from this party, by installing apps, mobile phone buyers can quickly get a discount or coupon for purchasing other products.

5. CONCLUSION AND FUTURE RESEARCH RECOMMENDATIONS

Our research aimed at making essential and timely inputs to international marketing practice as well as a theory by investigating and comparing consumer M-commerce usage behaviors in China and South Korea. Our results demonstrate similarities as well as variations between customers in different markets, that vary in stages of readiness for M-commerce. Our research model differed across 2 samples that are early and advanced readiness stages.

Our findings show that different factors were given greater importance to users in China and South Korea, based on the stage of M-commerce readiness. This meant that a simple strategy of standardization would not perform well. We ought to concentrate on developing habits in South Korea by highlighting the advantages of M-commerce. For example, Mretailers should emphasize the benefits of mobile applications on different occasions to raise the routine use of M-internet. To encourage customers to reuse it, M-retailers should provide some promotions, coupons or even run advertising campaigns through Mobile channels.

The study has limitations as well. Note that the current study was conducted only on South Korean and Chinese M-commerce customers and further, limited to certain age customers. Thus, the findings could not be generalized. It is recommended that due the importance and rapid growth potential of M-commerce, further studies be conducted in different regions and among different age groups as well.

REFERENCES

- [1] Durlacher 1999. Mobile Commerce Report. Accessed September 20, 2020: http://www.durlacher.com Durlacher Resea rch Ltd.
- [2] Statista 2018. Number of mobile phone internet users in South Korea from 2015 to 2022
- [3] Okazaki and Mendez, 2013. Perceived Ubiquity in Mobile Services. *Journal of Interactive Marketing*. Volume 27, Issue 2, May 2013, Pages 98-111.
- [4] Chao-Min, Meng-Hsiang Chiu, Hsu, Hsiangchu Lai, and Chun-Ming Chang, 2012. Re-Examining the Influence of Trust on Purchase Online Repeat Intention: The Moderating Role of Habit and its Antecedents. Decision Support Systems, 53(4):835-845.
- [5] Hani Mesak, Dwyer, Sean and Hsu, 2005. An Exploratory Examination of the Influence of National Culture on Cross-National Product Diffusion. *Journal of International Marketing*, 13 (2), 1-27.
- [6] Mattison Thompson, Frauke; Chmura, Thorsten, 2015. Loyalty Programs in Emerging and Developed Markets: The Impact of Cultural Values on Loyalty Program Choice. *Journal of International Marketing*. Sep2015, Vol. 23 Issue 3, p87-103. 17p. 2 Charts. DOI: 10.1509/jim.14.0125.
- [7] Auh, S., Menguc, B., Spyropoulou, S., & Wang, F, 2015. Service employee burnout and engagement: the moderating role of power distance orientation. *Journal of the Academy of Marketing Science.* https://doi.org/10.1007/s11747-015-0463-4.
- [8] Cudjoe AG, Anim PA, Nyanyofio JGNT, 2015. Determinants of mobile phone banking adoption in the Ghanaian banking industry: a case of access bank Ghana limited. J Comput -Commun 3(2015);1-19.
- [9] P. Mahatanankoon and J. Vila-Ruiz, 2008. Why Won't Consumers Adopt M-Commerce-



ISSN: 1992-8645

www.jatit.org

An Exploratory Study. *Journal of Internet Commerce*, 6(4) pp.113-128

- [10] Rahman, M. 2013. Barriers to M-commerce Adoption in Developing Countries – A Qualitative Study among the Stakeholders of Bangladesh *The International Technology Management Review*, Vol. 3 (2013), No. 2, 80-91
- [11] ZonranKalinic and Veljoko Marinkovic, 2015. Determinants of users' intention to adopt M-commerce: an empirical analysis. Journal of Information Systems and e-Business Management, 367-387.
- [12] Abdul R. Ashraf, Narongsak (Tek) Thongpapanl, Bulent Menguc and Gavin Northey, 2017. The Role of M-commerce Readiness in Emerging and Developed Markets. *Journal of International Marketing*, 25 (2). pp. 25-51. ISSN 1069-031X.
- [13] Lerzan Aksoy, Alexander Buoye, Pelin Aksoy, Bart Larivière, Timothy L. Keiningham, 2013, Across-National Investigation of the Satisfaction and Loyalty Linkage for Mobile Telecommunications Services Across Eight Countries. *Journal of Interactive Marketing*. Volume 27, Issue 1, February 2013, Pages 74-82.
- [14] eMarket 2018, Worldwide Retail and Ecommerce Sales: eMarketer's Updated Forecast and New M-commerce Estimates for 2016-202. Accessed September 10, 2020: https://www.emarketer.com/Report/ Worldwide-Retail-Ecommerce-SaleseMarketers-Updated-Forecast-New-Mcommerce-Estimates-20162021/2002182. Data Accessed: January 21, 2019.
- [15] Gao, Tao; Rohm, Andrew J.; Sultan, Fareena; Huang, Suping, 2012. Antecedents of consumer attitudes toward mobile marketing: A comparative study of youth markets in the United States and China. *Thunderbird International Business Review*, Vol. 54 Issue 2, p211-224. 14p. 1 Diagram, 4 Charts. DOI: 10.1002/tie.21452. Database: Business Source Complete.
- [16] Mi Jung Kim, Jong Woo Jun 2008. A case study of mobile advertising in South Korea
- [17] Pewinternet.org 2015. Aaron Smith 2015. U.S. Smartphone Use in 2015. Accessed August 26, 2020: https://www.pewinternet.org/2015/04/01/ussmartphone-use-in-2015/
- [18] Bhatti, T. (2008). Exploring Factors Influencing the Adoption of Mobile

Commerce. *Journal of internet banking and commerce*.

- [19] Kiseol Yang. (2012). Consumer technology traits in determining mobile shopping adoption: An application of the extended theory of planned behavior. *Journal of Retailing and Consumer Services*, 484-491.
- [20] Lu, M., Cao, Y., & Lu, Y. (2012). A Study on Consumers' Adoption of Mobile Shopping Services from a Perspective of Features in the Mobile Environment. *Journal of Intelligence*, 31(9), 202–206.
- [21] Liu, Y. &. Tang D. (2015). Effects of Consumer's Perceived Value on Mobile Shopping Willingness—Based on TAM and VAM models. *Lanzhou Academic Journal*, 169-175.
- [22] Yang, S. Quain, H. & Duy, R. (2019). Factors Influencing 5G Smartphone purchase intentions. *The 7th Taiwan Workshop for Information Management (Conference)*
- [23] Jang, Y. D. (2015). Effects of Mobile Shopping Characteristics on Purchase Intention in a Smart Media. *Journal of Marketing Thought*, 60-73.
- [24] Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). ES-QUAL: A multipleitem scale for assessing electronic service quality. *Journal of service research*, 7(3), 213-233.
- [25] E. Turban, D. K. (2003). Introduction to Ecommerce. *Prentice Hall*.
- [26] Kim, H. W., Chan, H. C., & Gupta, S. (2007). Value-based adoption of mobile internet: an empirical investigation. *Decision support* systems, 43(1), 111-126.
- [27] Zhang, L. Y. (2012). A meta-analysis of mobile commerce adoption and the moderating effect of culture. *Computers in Human Behavior*.
- [28] Zhang, R. (2012). THE CHARACTERISTICS AND TECHNICAL FOUNDATIONS OF MOBILE. Issues in Information Systems, 394-396.
- [29] Park, C. J. (2015). Do mobile shoppers feel smart in the smartphone age? *International Journal of Mobile Communications*, 157-171.
- [30] Hew, J. J., Lee, V. H., Ooi, K. B., & Lin, B. (2016). Mobile social commerce: The booster for brand loyalty? *Computers in Human Behavior*, 59, 142-154.
- [31] Wordbank 2018. Why is Chinese Mcommerce so important? Jonny Simpson,

Journal of Theoretical and Applied Information Technology 31st October 2020. Vol.98. No 20



	© 2005 – ongoir	ng JATIT	& LLS
ISSN:	1992-8645 <u>www.j</u>	atit.org	E-ISSN: 1817-3195
[32]	2017. Accessed August 17, 2020: http://www.wordbank.com/blog/advertising/ chinese-mcommerce/ Euromonitor International 2018. Digital_Consumer_in_South_Korea. Accessed August 14, 2020: http://www.portal.euromonitor.com/portal/a palwin/tab	[41]	18 Issue: 3, pp.313-335, Accessed August 3 2020.; https://doi.org/10.1108/10662240810883335 27. Abdul R. Asharf, Narongsak (Tek Thongpapanl, and Seigyoung Auh, 2014. The Application of Technology Acceptance
[33]	iResearch 2017, Alibaba Still Dominated China's SME B2B E-Commerce Market in 2016. Accessed August 10, 2020: http://www.iresearchchina.com/content/detai	[42]	The case of Online Shopping Adoption Journal of International Marketing, 22 (3) 68-93 Hair, Joseph F., Christian M. Ringle, and Marko Sarstedt 2011 PLS SEM: Indeed of
[34]	Alain Yee-Loon Chong (2013 Understanding Mobile Commerce Continuance Intentions: An Empirical Analysis of Chinese Consumers, <i>Journal of Computer</i> <i>Information Systems</i> , 53:4, 22- 30, DOI: 10.1080/08874417.2013.11645647	[43]	Silver 32. Bullet, Journal of Marketing Theory and Practice, 19 (2), 139-52. Straub, Detmar, Marie-Claude Boudreau, and David Gefen, 2004. Validation Guidelines for IS Positivist Research. The Communications of the Association for Information Systems 13 (1), 380-427.
[35]	Davis FD, 1989. Perceived usefulness, perceived ease of use and user acceptance of information technologies. Management Information Systems Research Center, University of Minnesota, <i>MIS Q 13</i> (3): 319-340	[44] [45]	Chin, Wynne W.,1998. The Partial Least Squares Approach to Structural Equation Modeling. <i>Modern Methods for Business</i> <i>Research</i> , 295 (2), 295-336. Sharma Piyush, 2010. Measuring Personal Cultural Orientations: Scale Development
[36]	Keng, S. Lim, E. & Shen, Z, 2001. Mobile Commerce: Promises, Challenges, and Research Agenda. <i>Journal of Database</i> <i>Management</i> 12(3): 4,13	[46]	and Validation, Journal of the Academy of Marketing Science, 38 (6), 787-806. Hancioghi, Y. Dogan, U. & Yidirim, S. 2014 Relationship between Uncertainty Avoidance
[37]	Chris Hutchins, 2015. Discover Why South Korean M-Commerce Is Rising and Thriving. Accessed August 7, 2020 ; https://www.motionpoint.com/blog/discover -why-south-korean-m-commerce-is-rising- and-thriving/	[47]	Culture, Entrepreneurial Activity and Economic Development. 10th International Strategic Management Conference, Ankara, Turkey. Gerpott, Torsten J., and Sandra Thomas 2014. Empirical Research on Mobile Internet
[38]	The Korea Herald 2013. Gmarket aims to lead mobile shopping business. Accessed at: http://www.koreaherald.com/view.php?ud=2 0130819000818. Data Accessed: August 19, 2020.	[48]	Usage: A Meta-Analysis of the Literature <i>Telecommunications Policy</i> , 38 (3), 291-310 Griffith, David A., Michael Y. Hu, and John K. Ryans Jr, 2000. Process Standardization across Intra-
[39]	Nowak & Partner Co., Ltd 2017. E- COMMERCE MARKET IN SOUTH KOREA – Overview on e-commerce in South Korea Platforms / Marketplaces for e-commerce. Mrs. Seungah Hong & Mr. Elias Peterle, 2017. Accessed August 6, 2020: https://www.nowak- partner.com/files/20170712 a.commerce.		Relationships. Journal of International Business Studies, 31 (2), 303-324.

partner.com/files/20170713-e-commercemarket-in-korea.pdf

Jeewon Choi, Hyeonjoo Seol, Sungjoo [40] Lee, Hyunmyung Cho, Yongtae Park, 2008. Customer satisfaction factors of mobile commerce in Korea, Internet Research, Vol.

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