Research Article

Research on College Students' Purchase Intention Based on M-Shopping Platforms

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Abstract

Taking college student consumers as an example, the present study expands and modifies the theoretical model based on the Technology Acceptance Model (TAM), and explores the correlation between the dimensions that affect college student consumers' purchase Intention to use mobile shopping (M-shopping) platforms.1327 college students in Guizhou participated in a questionnaire survey through an online platform. The data was statistically analyzed with SPSS and AMOS software to test the theoretical model of the study.

The results show that subjective norms (SN) positively affect perceived ease of use (PEOU), perceived usefulness (PU), and the intention to use M-shopping platforms (ITUMP). PEOU positively affects PU and ITUMP. PEOU has a positive affects perceived trust (PT). PT positively affects PU and ITUMP. ITUMP positively affects the behavior to use M-shopping platforms (BTUMP). PU plays an intermediary role in the positive impact of PEOU on ITUMP. However, PR is not significant for PU and ITUMP.

Keywords: *Purchase intention; college student consumers; M-shopping platforms; TAM*

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Introduction

With the rapid development of mobile networks, mobile shopping (M-shopping) has completely changed the consumption methods and lifestyles of college students, and has become an important part of college students' consumption (Luo Yuting & Luo Hong, 2019). According to the 47th statistical report on Internet development in China released by China Internet Network Information Center (CNNIC) in 2020, the total number of mobile Internet users in China has reached 986 million, accounting for 99.7% of the total number of Internet users, of which 21.0% are students. In 2020, there will be 781 million consumers using mobile phone online shopping (CNNIC, 2020).

When consumers purchase goods in M-shopping platforms which improve the efficiency of consumers' shopping, they can shop anytime and anywhere, and reduces the cost of shopping (Ktoridou, Epaminonda, & Kaufmann, 2008). Consumers have gradually changed from being unaccustomed and ignorant of M-shopping to habit and dependence (Liu, Li, Edu, Jozsa, & Negricea, 2019). Mobile online shopping platforms provide consumers with a better consumer experience. Compared with traditional online shopping, consumers can use more fragmented time to meet consumer needs, get rid of space constraints and increase shopping efficiency (Wen, Li, & Yin, 2019). These M-shopping platforms have been rapid developed. Nowadays, there are many third-party M-shopping platforms in China, such as Taobao, JD, Pinduoduo, Suning.com, Vipshop. Moreover, M-shopping has become an indispensable part of people's life. It is obvious that mobile online shopping will seriously affect the development of China's consumer market. As the largest group, students' preference for M-shopping is also an important condition for the development of economic entities based on mobile online platforms (Wang Mengbo & Liu Qing, 2019).

Technology Acceptance Model (TAM) was proposed by Davis (1986) in 1986, and developed at 1989(Davis, 1989). This model limits the prediction and interpretation of user behavior to the initial acceptance of information systems. It is currently one of the most widely used and influential models, and also a commonly used theoretical model in the study of online consumer behavior. Due to the lack of variables such as subjective norms (SN) and perceived behavior control (PBC) in the TRA Model (Fishbein & Ajzen, 1975) and the TPB Model (Ajzen, 1985), TAM weakens its explanatory power. However, the concepts of perceived usefulness (PU) and perceived ease of use (PEOU) in TAM have simplified the operability of TAM and make it more universal. Therefore, TAM is the most suitable theory to conduct research on various new technologies(Akroush, Mahadin, ElSamen, & Shoter, 2020; Chen, Gillenson, & Sherrell, 2002; Groß, 2014; Heijden, Verhagen, & Creemers, 2003; Zhang, Niu, & Zhang, 2020).

Based on the theoretical model of TAM, the present study aims to expand and modify the theoretical model, find out the factors that affect college student consumers' attitude towards shopping on mobile platforms, explore the correlation between the dimensions that affect college student consumers' intention to use M-shopping platforms (ITUMP). Through the study, the paper puts forward some suggestions for M-shopping platform enterprises. The objectives of the study are:

1. Based on the characteristics of college student consumers' M-shopping, to expand TAM, add subjective norms (SN), perceived risk (PR) and perceived trust (PT) variables to the theoretical model, and modify the model.

2. To propose hypotheses for the theoretical model to explore the impact of PEOU, PU, PT and SN on college student consumers' attitudes and purchase intentions, and conduct an empirical study to deeply analyze the correction between variables and purchase intention.

Theoretical background

After reviewing the studies of TAM, Marangunić and Granić (2015) pointed out TAM is the most suitable for analyzing the consumption behavior of online users. Although TAM does not cover SN factor, it involves the variables of PU and PEOU which make it a higher advantage in the application process and a wider range of use. In the specific application process, by optimizing TAM, the scope of the application can be expanded. Compared with using TAM alone, this integration provides a better explanation for consumer acceptance of technology (Bailey, Pentina, Mishra, & Mimoun, 2017; Muñoz-Leiva, Climent-Climent, & Liébana-Cabanillas, 2017).Voss, Spangenberg, and Grohmann (2003), Marangunić and Granić (2015) expanded TAM with new influential factors and variables in order to better understand the predictors of TAM variables. Therefore, the integration of these variables into TAM will better explain the predictors of TAM core elements.

The hypotheses Development

3.1 The hypothesis of subjective norms

SN is defined as a person's perception, which refers to the social pressure that an individual feels about whether to take a particular behavior, that is, when predicting the behavior of others, the influence of those individuals or groups who have influence on the individual's behavior decision-making on whether to take a specific behavior (Young & TKent, 1985). Ajzen and Driver (1991) pointed out that SN is the degree of pressure that an individual perceives as an important reference to whether a person agrees with his behavior or not. Venkatesh and Davis (2000) added organizational and social factors, such as impression and SN, to TAM to get an extended version TAM2. Perdesen (2005) extended TAM by merging behavioral control and SN to produce a decomposable TPB Model, which proved to be useful for explaining early research on M-shopping behavior. Gerpott and Thomas(2014), Ovčjak, Polančič and Heričko(2015) found out that higher positive attitudes, SN, PT and self-efficacy would lead to a higher likelihood of using M-shopping. Luo Jie (2011) believed that SN and peripheral influences of college students have an important influence on consumer behavior. At the same time, Phong, Khoi and Le (2018) also believed that SN has a positive influence on the intention of M-shopping.

Therefore, based on previous scholars' research, the present research proposes the following hypotheses to test the impact of SN on M-shopping platforms:

H1: Subjective norms positively affect perceived ease of use.

H2: Subjective norms positively affect perceived usefulness.

H3: Subjective norms positively affect the intention to use M-shopping platforms.

3.2 The hypotheses of perceived ease of use and perceived usefulness

According to Davis (1986), the behavior of using information technology begins with the cognition of the usefulness and ease of use of information technology. Usefulness is defined as being able to be used beneficially or used for beneficial purposes. The perception of usefulness is the benefit a person believes he/she can get when he/she uses it. Ardyanto(2015), Budyastuti 和 Iskandar(2018) discussed the impact of e-commerce usefulness, ease of use and trust on user behavior. Besides PEOU, PU is the main determinant of TAM (Brusch & Rappel, 2020). PU, PEOU and behavioral intention are key predictors of expected and actual outcomes (King & He, 2006). At the same time, PU is also affected by PEOU, because any new technology that is easier to use would be considered more useful (Venkatesh & Davis, 2000).The present study believes that when network operations are performed on M-shopping platforms, the improvement of college students' consumption efficiency can be explained with the help of the concepts of PU and PEOU. Therefore, the research proposes the following hypotheses:

H4: Perceived ease of use positively affects perceived usefulness.

H5: Perceived usefulness positively affects the intention to use M-shopping platforms.

3.3 The hypotheses of perceived trust

PT is a subjective belief that when the trustee faces higher uncertainty and greater risk of losing control, the parties will fulfill their obligations (Lu, Yang, Chau, & Cao, 2011; Zhou, 2013). Many previous studies regarded trust as the determinant of information systems(Lee, Moon, Kim, & Yi, 2015; H.-H. Lin & Wang, 2006; X. Luo, Li, Zhang, & Shim, 2010). There are multiple mechanisms for trust establishment. According to the previous studies and the characteristics of the network platforms, the trust establishment mechanism of the network platforms can be classified as: 1. Trust based on knowledge. 2. Trust based on characteristics. 3. Trust based on the system. 4. Trust based on personal characteristics. Trust in members includes two dimensions. One is the trust in the abilities of other members, and the other is the trust in the honesty and benevolence of other members, that is, the belief that other members will consciously abide by social norms or principles(Grabner-Kraeuter, 2002; McKnight, Choudhury, & Kacmar, 2002; Pizzutti & Fernandes, 2010; Stewart, 2003; Y. D. Wang & Emurian, 2005).

Marriott and Williams(2018) found that aspects related to PR and PT can predict customers' intention to use M-shopping. If users believe that online merchants can complete transactions, keep their promises and pay attention to the interests of users, then users' trust and beliefs would be even higher. Therefore, this research proposes the following hypotheses:

H6: Perceived ease of use positively affects perceived trust.

H7: Perceived trust positively affects perceived usefulness.

H8: Perceived trust positively affects the intention to use M-shopping platforms.

3.4 Research hypothesis of perceived risk

According to the theory of perceived risk, any behavior taken by consumers has certain unpredictable results, and the attributes of the results may be bad, which will affect their attitude towards using mobile online shopping platforms (AlSoufi & Ali, 2014).The present study believes that PR can reflect college students' attitude towards risk and affect their intention to use M-shopping platforms. PR refers to the injury or loss that consumers may expect to cause when they use mobile network for shopping. In fact, users can not accurately predict the consequences of their own behavior when they are consuming. Based on this, a certain risk is actually perceived in this process, but for this risk, there is a big difference from the actual risk. In order to improve the explanation of the attitude and intention of M-shopping, Marangunić and Granić(2015), Groß(2015), Demoulin and Djelassi(2016) expanded TAM by adding PR, PT and enjoyment. When consumers use mobile online shopping platforms for shopping, the stronger their perceived risk is, the more they can affect college students' purchase intention to use M-shopping platforms. Therefore, the study puts forward the following hypotheses:

H9 Perceived risk is negatively correlated with perceived usefulness.

H10 Perceived risk is negatively correlated with the intention to use M-shopping platforms..

3.5 The Hypothesis of the Intention to use platforms

Davis(2000) believed that people's intention to adopt new technology and platforms is a pre-factor that affects their intention to use new information technology systems. According to reviewing the previous studies, people have confirmed that there is a positive correlation between attitudes and the intention to use new technologies, in which PEOU and PU are the prerequisites for determining consumers' attitudes toward technology adoption (Kang, Hahn, Fortin, Hyun, & Eom, 2006; H. D. Yang & Yoo, 2004; S. Yang, Lu, Gupta, Cao, & Zhang, 2012). Li Dongjin, Wu Bo, and Wu Ruijuan (2009) found that there was a significant relationship between ITUMP and behavior in the purchase intention model of Chinese consumers. Davis (1986) believed that the construction of TAM to study a system or technology depends on the user's behavior intention, which is greatly

influenced by the perception system, followed by the user's attitude. Forming and consolidating positive consumer attitudes can be considered the key to the success of M-shopping(Phong, Khoi, & Trang, 2018). In the study, ITUMP is an important variable in the behavior to use M-shopping platforms (BTUMP). Based on this point of view, the research proposes the following hypotheses:

H11: The intention to use mobile platforms positively affects the behavior to use mobile platforms.

H12: PU plays a mediating role in the positive impact of PEOU on ITUMP.

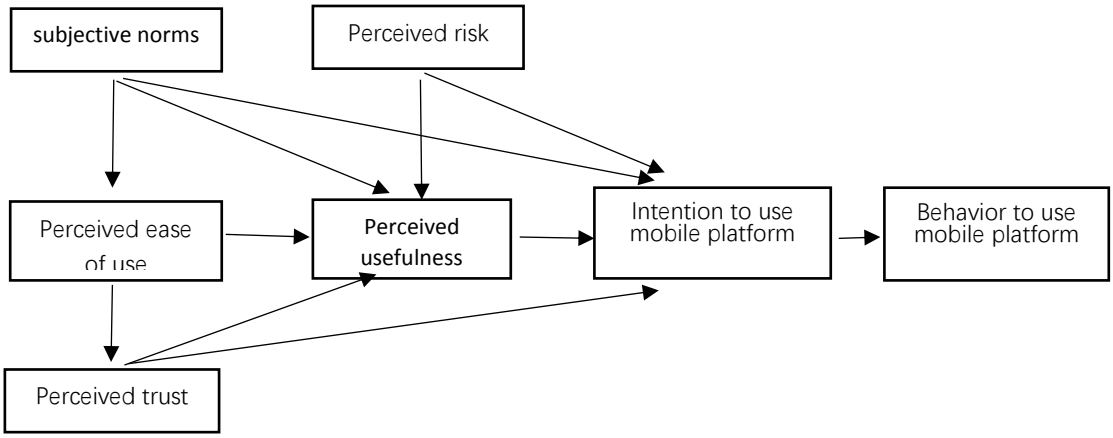

Figure 1. Hypothesized Research Model

Research Method

The present study uses the following methods and data analysis instruments to analyze the questionnaire data:

Descriptive statistical analysis. The paper sorted out and summarized the data, and then analyzed the trend and overall characteristics of the data with the help of frequency and other statistical indicators. Structural model analysis. Structural equation modeling (SEM) is an important method of multivariate statistics, which aims to analyze the interaction between variables. The measurement model was drawn in Amos 26.0. The data were loaded the collected to analyze the fitting degree of the model structure combined with the relevant analysis indicators. When the fitting indicators of the model meet the general standards, the path test can be carried out to analyze whether there is a dependency relationship between the variables and determine its impact degree.

4.1 sample and questionnaire

The 5-point Likert scale questionnaire was used in the study. In the questionnaire, "1, 2, 3, 4, 5" represent five levels of "strongly agree, agree, uncertain, disagree, and strongly disagree". According to the specific items

selected in the questionnaire, the respondents' opinion to choose options can be judged, that is, their attitude towards a certain item.

The items to measure PU of TAM in the questionnaire were adapted from Davis(1989), Venkatesh and Davis (2000), Heijden, Verhagen and Creemers(2003), Lin and Lin(2007); the items to measure PEOU and behavioral intention were adapted from Venkatesh and Davis(2000); the items to measure PT were adapted from Kim, Ferrin and Rao (2008), ElSamen (2015); and the items to measure PR were from Featherman and Pavlou(2003), Rafiq, Lu, & Fulford (2012), and George and Kumar （2014）.

4.2 Demographics of the respondents

The sample of the study are college student consumers in Guizhou Province, China. Questionnaire survey and data collection were conducted through an online survey platforms. In order to make the sample representative, questionnaires were sent to colleges students in Guizhou Province. Finally, 1560 questionnaires were obtained, of which 233 were invalid and 1327 were valid. The personal information indicators of the questionnaire are mainly related to the measurement of demographic indicators, including gender, age, income level, etc. The results of personal information were summarized as follows:

Table 1. The Results of Sample Demographics

Items	Choice	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	642	48.4	48.4	48.4
	Female	685	51.6	51.6	100.0
Age	< 18	38	2.9	2.9	2.9
	18-24	1267	95.5	95.5	98.3
	>24	22	1.7	1.7	100.0
Education	Junior College	700	52.8	52.8	52.8
	University	627	47.2	47.2	100.0
City Size	Capital City	136	10.2	10.2	10.2
	Prefecture-level City	218	16.4	16.4	26.7
	County Level	973	73.3	73.3	100.0

	and Below				
Average Monthly Disposable Amount	500-1000	806	60.7	60.7	60.7
	1001-1500	387	29.2	29.2	89.9
	1501-2000	85	6.4	6.4	96.3
	> 2000	49	3.7	3.7	100.0
Highest Acceptable Per Consumption	< 100	441	33.2	33.2	33.2
	100-300	610	46.0	46.0	79.2
	301-500	141	10.6	10.6	89.8
	> 500	135	10.2	10.2	100.0

Results

5.1 Reliability and validity

The study first conducted factor analysis. The results of Bartley sphere test show that the KMO value was 0.958, and is significant at the level of 0.001. Judging the interval according to the value in Table 2 shows that the data has a strong correlation and is suitable for factor analysis. The factor structure after principal component extraction and maximum variance rotation is shown in Table 3. Seven factors with eigenvalues greater than 1 are extracted, and the variance explanation rate is 68.879%.

Table 2. The Results of KMO and Bartlett's test

KMO Measure of Sampling Adequacy		0.958
Bartlett's Test of Sphericity	Approx. Chi-Square	23300.950
	df	435
	Sig.	0.000

For the reliability and accuracy of the questionnaire in the study, the internal consistency of the measurement results is relatively high. The study used Cronbach's α coefficient for reliability test, where the larger the value of Cronbach's α, the higher the reliability. When Cronbach's α is greater than 0.7 , Indicates good reliability, and when the value is greater than 0.8, it indicates that reliability is excellent (Eisinga, Grotenhuis, & Pelzer, 2013).

Table 3. The Results of Reliability Test

Factor	AVE	CR	Cronbach's α
PU	0.471	0.816	0.820
PEOU	0.621	0.867	0.882
PR	0.596	0.812	0.799
SN	0.514	0.808	0.801
PT	0.607	0.885	0.844
ITUMP	0.601	0.857	0.857
BTUMP	0.618	0.866	0.864

A total of 7 factors and 29 items were analyzed by confirmatory factor analysis (CFA). It can be seen from Table 3 that the AVE values of the six factors are all greater than 0.5, and the CR values are all higher than 0.7, which means that the analysis data has good aggregation (convergence) validity. Fornell & larcker (1981) suggested that the AVE value should be higher than 0.5. However, if the AVE value is higher than 0.5, it means that the factor load must be higher than 0.7. Considering the actual aspect of the data, the AVE value higher than 0.36 can be regarded as the barely acceptable standard

Table 4. The Results of Discriminant Validity

	PU	PEOU	PR	SN	PT	ITUMP	BTUMP
PU	0.686						
PEOU	0.674	0.788					
PR	0.319	0.466	0.772				
SN	0.539	0.508	0.306	0.717			
PT	0.402	0.323	0.112	0.613	0.779		
ITUMP	0.569	0.458	0.232	0.680	0.661	0.775	
BTUMP	0.615	0.554	0.277	0.651	0.523	0.766	0.786

5.2 The Hypothesis Testing

Table 5. The Results of Inner Model Test

X	⟶	Y	Non-SPC	*SE*	*z* (CR)	*p*	SPC
PU	⟶	ITUMP	0.313	0.034	9.192	0.000	0.307
PEOU	⟶	PU	0.766	0.050	15.257	0.000	0.680
PEOU	⟶	PT	0.495	0.040	12.388	0.000	0.407
PR	⟶	PU	-0.021	0.020	-1.037	0.300	-0.026
PR	⟶	ITUMP	-0.034	0.019	-1.809	0.071	-0.041
SN	⟶	PEOU	0.645	0.039	16.547	0.000	0.649
SN	⟶	PU	0.212	0.041	5.186	0.000	0.190
SN	⟶	ITUMP	0.486	0.042	11.601	0.000	0.426
PT	⟶	PU	0.073	0.023	3.160	0.002	0.078
PT	⟶	ITUMP	0.366	0.024	15.149	0.000	0.387
ITUMP	⟶	BTUMP	1.000	0.038	26.297	0.000	0.894

Note: ⟶Represents the path influence relationship

According to the path influence relationship of structural equation, when PR has a significant impact on PU, this path does not show significant (z = - 1.037, P = 0.300 > 0.05), so H9 is rejected. When PR affects ITUMP, this path does not show significant (z = - 1.809, P = 0.071 > 0.05), so H10 is rejected. The other paths are significant standard, so the PR factors are removed from the model, and the model is modified to get a new model.

According to the path of the modified structural equation model, when PU affects ITUMP, the standardized path coefficient is 0.314 > 0, and (z = 9.600, P = 0.000 < 0.01), which indicates that H5 is accepted. When PEOU affects PU, the normalized path coefficient is 0.679 > 0, and (z = 15.596, P = 0.000 < 0.01), which indicates that H4 is accepted. When PEOU affects PT, the standardized path coefficient is 0.405 > 0 (z = 12.330, P = 0.000 < 0.01), which indicates that H6 is accepted. When SN affects PEOU, the normalized path coefficient is 0.620 > 0 (z = 15.900, P = 0.000 < 0.01), which indicates that H1 is accepted. When SN affects PU, the normalized path coefficient is 0.182 > 0 (z = 5.561, P = 0.000 < 0.01), which indicates that H2 is accepted. When SN affects ITUMP, the standardized path coefficient is 0.404 > 0 (z = 12.106, P = 0.000 < 0.01), which indicates that H3 is accepted. When PT affects PU, the normalized path coefficient is 0.081 > 0 (z = 3.236, P = 0.001 < 0.01), which indicates that H7 is accepted. When PT affects ITUMP, the normalized path coefficient is 0.389 > 0

(z = 15.159, P = 0.000 < 0.01), which indicates that H8 is accepted. When ITUMP affects BTUMP, the value of standardized path coefficient is 0.893 > 0 (z = 26.184, P = 0.000 < 0.01), which indicates that H11 is accepted.

Table 6. The Results of Inner Model Test (Modified Model)

X	_Y	Non-SPC	*SE*	*z* (CR)	*p*	SPC
PU	_ITUMP	0.320	0.033	9.600	0.000	0.314
PEOU	_PU	0.762	0.049	15.596	0.000	0.679
PEOU	_PT	0.491	0.040	12.330	0.000	0.405
SN	_PEOU	0.627	0.039	15.900	0.000	0.620
SN	_PU	0.207	0.037	5.561	0.000	0.182
SN	_ITUMP	0.467	0.039	12.106	0.000	0.404
PT	_PU	0.075	0.023	3.236	0.001	0.081
PT	_ITUMP	0.367	0.024	15.159	0.000	0.389
ITUMP	_BTUMP	1.000	0.038	26.184	0.000	0.893

Note: ⟶Represents the path influence relationship

According to analysis of structural equation model fitting indicators (Table 7), results show that RMSEA 0.066, RMR 0.055, CFI 0.913, NFI 0.900, NNFI 0.902, TLI 0.902, IFI 0.913 meet the index standard. GFI 0.876 did not meet the criterion of greater than 0.9, but it has reached the minimum criterion of greater than 0.8.

Table 7. The Results of Structural Equation Model Fitting Indicators

Indictors	GFI	RMSEA	RMR	CFI	NFI	NNFI	TLI	IFI
Criterion	>0.9	<0.10	<0.05	>0.9	>0.9	>0.9	>0.9	>0.9
Value	0.876	0.068	0.057	0.913	0.900	0.902	0.902	0.913

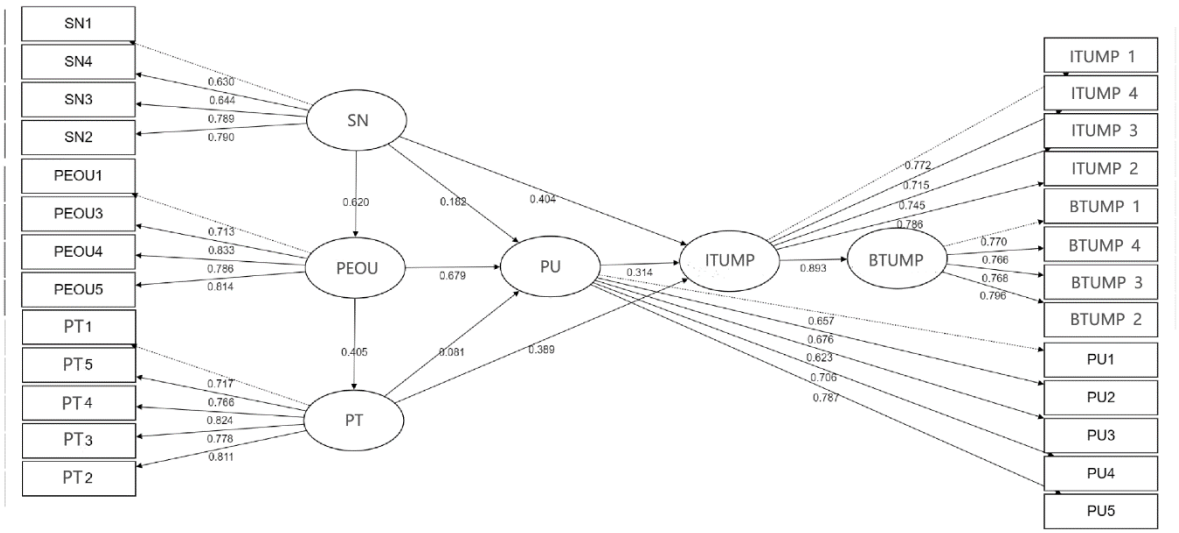

Figure 2. Modified Research Model

5.3 Mediation Variable Testing

Table 8 The Results of Mediation Effect Size

Items	Test Results	c Total Effect	a*b Mediation Effect	c' Direct Effect	Calculation Formula of Effect Proportion	Effect Ratio
PT=>PU=>ITUMP	Partial Intermediary	0.367	0.010	0.356	a * b / c	2.863%
PEOU=>PU=>ITUMP	Fully Intermediary	0.180	0.140	0.040	-	100%
PN=>PU=>BTUMP	Partial Intermediary	0.417	0.061	0.357	a * b / c	14.570%

As can be seen from Table 8, in terms of PT => PU => ITUMP and SN => PU => ITUMP, PU plays a part of the mediating role. However, in terms of PEOU => PU => ITUMP, PU plays a completely mediating role.

Discussion and Implications

The present study explored and tested the structural dimensions of purchase intention based on M-shopping platforms. The previous studies in this field are not comprehensive and systematic, especially the lack of research on SN and PT variables. By reviewing the research literature, the study constructs a theoretical model of college students' purchase intention based on M-shopping platforms, and makes theoretical logic deduction and interpretation. Based on TAM, the study introduces SN and PT to deepen the research on ITUMP.

6.1 Theoretical Implications

At present, there are many researches on the factors that affect the college students' consumer behavior in the e-commerce environment. However, there are few related studies on the factors that influence BTUMP. The study is one of the few studies that integrates PR, PT and SN into TAM to better explain consumer acceptance of M-shopping. Based on the theory of TAM, the study provides a behavioral method to understand ITUMP from the perspective of consumer behavior. Through PT, PR and SN, it can not only expand and better use Tam, but also enrich the theory of consumer online shopping behavior, which could provide a better understanding of consumer behavior for college students in the future.

6.2 Practical Implications

As a new means of consumption and shopping, M-shopping platform has the characteristics of convenience, instantaneity and low cost. It plays an important role in market consumption and plays a key role in the development of M-shopping market. As an important part of the operation of M-shopping platform system, college student consumers are important resources for mobile e-commerce. As a pioneer market, college students can more efficiently help mobile e-commerce companies publicize their family and friends and promote the scope of influence of the corporate platforms. At the same time, with the increase of college students' income, their M-shopping behavior will bring a substantial increase in the transaction scale for M-shopping platform companies.

6.3 Main Findings

1) SN positively affects PEOU, PU and ITUMP. Among them, H2 and H3 are consistent with Perdesen (2005), Gerpott and Thomas (2014)， Ovčjak， Polančič and Heričko (2015), Heričko (2015).

SN belongs to a type of social influence. As a member of a social group, human beings are deeply influenced by social groups and often have conformity(Venkatesh & Davis, 2000).New M-shopping users usually learn about this new way of shopping through the introduction and recommendation of their relatives and friends. Consumers will project their trust in their relatives and friends to the things they recommend. Therefore, when a consumer perceives that others want he/she to do online shopping, he/she will have purchase intention(Luo Jie, 2011).Besides relatives and friends, wanton publicity by TV media may have an impact on consumers (H1). The more the consumers know about it, the more it affects PEOU.

2) PU positively affects ITUMP, while PEOU positively affects both PU and PT.

The findings show that consumers are more inclined to use M-shopping platforms because PU and PEOU are higher than other transaction means (H5). Consumers prefer fast, convenient and simple forms of transactions (Brusch & Rappel, 2020).

The empirical results show that the combination of TAM with SN and PT better illustrates consumers' attitude and intention than using TAM alone. PEOU has a positive and significant impact on PU and PT (H4). If the system is not complicated and easy to use, consumers will have a more positive attitude towards using M-shopping platforms. If consumers find that they can easily browse, compare products and shop with just one finger, without complicated processes, consumers will be more inclined to view the usefulness of M-shopping platforms (Ardyanto, 2015). PEOU also positively affects PT (H6). With the advent of the 5G era, the mobile network environment has been greatly developed. Various M-shopping platforms are more convenient and faster, and mobile online payment forms are simple and safe. Security, the convenience of M-shopping platforms and more user-friendly design have increased consumers' trust in shopping on M-shopping platforms.

3) PT positively affects both PU and ITUMP.

PT, a complicated factor, is usually associated with a positive attitude (Marriott & Williams, 2018).Consumers have trust in M-shopping means that consumers believe that M-shopping is reliable and useful, and consumers will have a positive attitude towards PU (H7) (Pizzutti & Fernandes, 2010; Y. D. Wang & Emurian, 2005).The findings also show that PT has a positive effect on M-shopping attitudes (H8). The more consumers trust M-shopping, the more positive their M-shopping attitudes are. The more consumers are suspicious of M-shopping, and their M-shopping attitudes are more negative. In the M-shopping environment, consumers cannot see or touch the products, and they cannot see the seller. They will inevitably have a sense of distrust in this situation. At this time, consumers will have negative attitudes such as suspicion and doubts about M-shopping, which is not conducive to promoting BTUMP.

4) ITUMP positively affects BTUMP. PU plays a mediating role in the positive influence of PEOU on ITUMP.

ITUMP positively affects BTUMP (H11). According to previous studies, scholars have confirmed that there is a positive correlation between attitudes and intention to use new technologies. Among them, PEOU and PU are certain prerequisites for consumers' attitudes towards using technology (Kang et al., 2006; H. D. Yang & Yoo, 2004; S. Yang et al., 2012). Meanwhile, PU plays a mediating role in the positive impact of PEOU on ITUMP (H12)(Shi Peili, 2017). When internal factors, object motivation and intermediary factors interact with each other, attitude and purchase intention will be produced. With the participation of other factors, purchase behavior will eventually appear.

6.4 Suggestions

1) When M-shopping platform companies serve college students, they should pay more attention to the consumption ability of college students. Meanwhile, in the promotion process of M-shopping platforms, it is necessary to increase the importance of usefulness, and to better promote the platforms by strengthening the propaganda in this area.

2) M-shopping platform companies should pay more attention to the optimization of mobile clients, reduce the difficulty of college students relying on M-shopping platform transactions, and make the platforms more operability.

3) M-shopping platform companies should enhance the social impact of consumers. Create a marketing method based on consumer trust and experience marketing to maximize the convenience of consumers and expand consumer groups.

4) M-shopping platform companies should focus on simplifying the user's shopping procedures and payment processes, so that consumers have a good impression of the company. In addition, the companies should use high-quality services to win the recognition of consumers, so as to become loyal consumers of the companies.

6.5 Limitations and Future Research

Although this research has conducted theoretical logical deductions and explanations on the constructed theoretical model, the research is only a preliminary attempt. There are still limitations. Intentions cannot fully reflect the actual behavior of consumers, and variable selection can be more comprehensive. Meanwhile, the research survey is only arranged at one time point, so it is a cross-sectional study. Longitudinal studies will make it possible to observe changes in the characteristics of the variables being examined and their relevance over time. Over time, mitigation effects can also be observed.

In future research, it is worth exploring that consumers use mobile online shopping platforms for shopping. Firstly, testing the differences between users and non-users of M-shopping platforms is also very valuable, because previous studies have shown that there are differences between these two groups. Secondly, future research can examine the influence of consumer personality factors and other factors, such as innovation and self-efficacy, system quality, etc. as potential moderators of existing relationships. In addition, the study found that PR did not affect ITUMP and BTUMP, so that future research might examine the reasons behind this inconsistency.

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