MODELLING FACTORS INFLUENCING CONSUMERS TRUST IN E-COMMERCE IN SHANGHAI CHINA

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Abstract

The purpose of this study is to formulate the modelon the factors which influence consumer trust in e-commerce in China in Shanghai. Previous scholars have done some researches using TAM model to analysis e-commerce, but none of them had focus on Chinese consumers. Therefore, this research focuses on Chinese consumers' trust in e-commerce. A convenience sampling questionnaire were be use as instrument for data collection. A data of 307 respondents were collected and analyzed by SPSS. Descriptive and inferential statistical analysis will be carry out to examine the relationship between the independent variables and dependent variables.

Keywords

Consumer Behaviour, Trust, E-commerce, Shanghai

INTRODUCTION

In the past 10 years, the use of e-commerce has been increasing. E-commerce has created more business opportunities for China, including online banking, hotel and air ticket booking, and purchase of various products and services. E-commerce markets in all countries and regions are developing rapidly. As the most populous country in the world, China is a driving force for e-commerce in other countries. In China's e-commerce market, the three most widely used e-commerce services are online shopping, online payment and online banking, accounting for 374 million, 336 million and 301 million users respectively (56.9 percent, 48.3 percent and 44.6 percent of all Internet users respectively). The Chinese government's overall strategy to promote ICT is considered a key factor for the sustainable growth of the Chinese economy and plays an increasingly important role in economic development as part of the development of its economic, cultural fabric and social (Yao and Watanabeb, 2018). The sustainable development and use of e-commerce is expected to play an important role in China's urbanization process to achieve social inclusion and socio-environmental sustainability (Harter et al., 2014).

TAM model is one of the most commonly used models to identify perceived usefulness and perceived easy of use. According to this theory, users' acceptance of a certain technology mainly

depends on two aspects: perceived usefulness and perceived ease of use (Prashar, Sai Vijay and Parsad, 2015). Perceived usefulness indicates what aspects of e-commerce potential users think enhance the likelihood of a user experience. Perceived ease of use is determined by the degree to which potential users expect ease of operation of an e-commerce system (Davis et al., 1989).

This research is mainly based on Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB). The purpose of Theory of Reasoned Action (TRA) is to explain the relationship between opinions and behaviors in human society. It is mainly used to predict a person's future behavior based on his previous attitude and behavior. A person's decision to make an action is based on the expected result, also known as the result of an action. Reasoned Action theory is a universal model in which any factor can influence behavior only indirectly, through subjective attitudes and criteria, giving a clear idea of the rational production of behavior (Waheed, Kaur, Ain and Sanni, 2015). Theory of Planned Behavior (TPB) proposes that human behavior is the result of thinking and planning in advance (Yong and Jing, 2014). This theory holds that people's preferred behavioral intentions are influenced by their own agreed attitudes and others' support. And people's intentions affect their actual behavior. In other words, Theory of Planned Behavior (TPB) suggests that the human mind controls their behavior.

Perceived usefulness, perceived ease of use of e-commerce sites, the reputation of sellers and perceived risks may have some positive or negative effects on the trust of consumers. This research focuses on determining whether these factors models on consumer trust. By finding out the relationship between these factors and consumer trust, the development of e-commerce business can be further studied and understood.
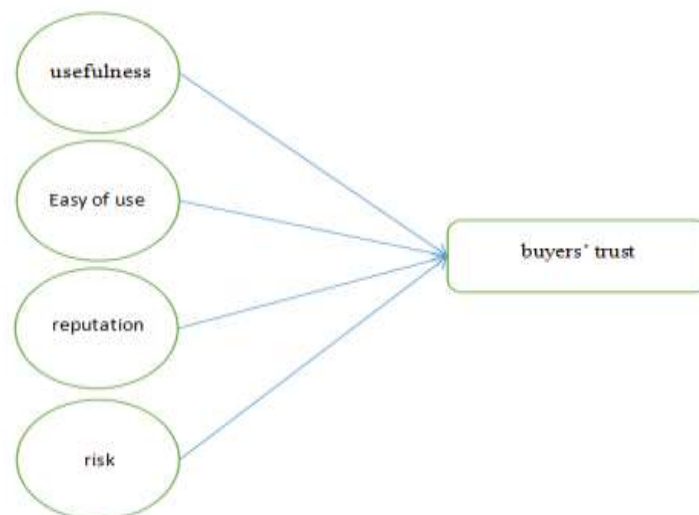

Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

This research used SPSS to conduct quantitative analysis on the data obtained from the questionnaire. This research chose to use the quantitative analysis method because it can conduct large-scale social surveys and quickly grasp the development trend of e-commerce. In this questionnaire, the basic information such as gender, age, occupation, income and so on were gathered. Then a survey of e-commerce buyers on the dependent variable and four independent variables where the dependent variable is consumer trust. By sending questionnaires online, this study ended with received 307 valid questionnaires who were between 18 and 50 years old. The stidy used E-mail and WeChat platform to send the questionnaire.

In China, Taobao, Tmall mall, Jingdong mall, Suning Tesco and Vipshop are the five most important electronic Internet platforms. Taobao has nearly 500 million registered users, and the total number of online goods on the platform has exceeded 1 billion. Tmall is the representative of B2C, China's e-commerce platform, which has the advantage of integrating tens of thousands of merchants and brands around the world. In 2017,Jjingdong had nearly 300 million active users and about 1.3 trillion yuan of transactions on its platform. In the sales of online home appliances in 2017, suning ranked first with a market share of 20%. Vipshop has more than 300 million registered members. I investigated users of Taobao, Tmall mall, Jingdong mall, Suning Tesco and Vipshop in Shanghai of China. Since almost all Internet users in China are e-commerce consumers, the study can smoothly survey e-commerce users in Shanghai by releasing electronic questionnaires on the online platform.

RESEARCH FINDINGS

In this study, I sent out 384 electronic questionnaires through the Internet platform and emails, and received 307 valid questionnaires. According to frequency statistics based on the gender and age of the interviewees, 144 of them are women, accounting for 46.9% of the total number. 163 of the respondents were men, 53.1 percent of the total. Overall, there were about the same number of male and female respondents, with slightly more male respondents. In terms of age, 230 were aged between 20 and 40, accounting for 74.9 per cent of respondents. There were 57 people aged 41 to 50, accounting for 18.6 per cent of the total. There were 20 respondents over 51 years old, accounting for 6.5% of the total. This suggests that most of the people who filled out the questionnaires in this study were young people. In terms of where respondents live, 184 individuals live in the city center, or 59.9 percent of the total. 98 people live in the suburbs, accounting for 31.9% of the total, while the remaining 25 live in the countryside, accounting for 8.1% of the total.Most of the respondents have bachelor's degrees, with 208 people accounting for 67.75% of the total. In terms of the occupation of the interviewees, the largest number of them are private employees, 106 of whom are private employees, accounting for 34.63% of the total number. Students and self-employed students are the next largest group, accounting for 62 employees respectively, accounting for 20.20% of the total number. Only 21 people retired, accounting for 6.84 percent. There were 172 respondents whose monthly income was between 5,001 and 10,000 RMB, accounting for 56.03%. Next, there are 60 people with an income below 5,000 RMB, accounting for 19.54% of the total. Only 24 respondents with monthly income greater than 15.001RMB, accounting for the least proportion.

Most people who fill out the electronic questionnaire spend less than 2,000 RMB online every month, accounting for 47.88%. Next, 80 people spent 4,001 to 6,000 RMB, accounting for 26.06%. Only 12 of them spend more than 6,001 RMB on online shopping every month, which is the least, accounting for only 3.91% of the total.

Reliability Test

As shown in the Table 1, the value of Cronbach's alpha has been tested to be 0.948, which is greater than 0.7, so the dependent and independent variables of this study are generally valid and can be studied.

Variables	Item number	Cronbach's Alpha
Preceived usefulness	3	0.889
Preceived ease of use	3	0.725
Sellers' reputation	3	0.852
Preceived risks	3	0.832
Buyers' trust	6	0.764

Table 1: Cronbach Alpha

Study tested the validity and reliability of the independent and dependent variables of the study and conducted a confirmatory factor analysis (CFA) method. The indicators are valid when the load factor (λ) is greater than 0.5 or more, and the data of the variables have a significant effect. When all values of construction reliability (CR) > 0.7 and Cronbach's alpha > 0.6, all data for the variables are suitable for analysis. As shown in the figure, the independent and dependent variables of Cronbach's alpha are greater than 0.7, so the CR and Cronbach values show that all variable data are suitable for further analysis.

IV	DV	Pearson correlation
Preceived usefulness	Buyers' trust	0.703
Preceived ease of use	Buyers' trust	0.734
Sellers' reputation	Buyers' trust	0.545
Preceived risks	Buyers' trust	0.711

Table 2: Pearson correlation of valuables

Suggested by Cohen (1988) and expanded by Sawilowsky (2009) the effect size of Pearson correlation is small with d=0.2 and medium with d=0.5. When d=0.8, the effect size is large, and when d=1.2, the effect is very large.

Therefore, according to the data of table 10, the Pearson correlation for preceived usefulness, preceived ease of use and preceived risks is 0.703, 0.734 and 0.711 respectively, both exceeding 0.7, so the effect size of these three independent variables is very large. The Pearson correlation of sellers' reputation is 0.545, exceeding 0.5, and the effect size is above medium.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.816[a]	.665	.661	.34313	.665	147.187	4	296	.000

a. Predictors: (Constant), PR, PU, SR, PEOU

Table 3: Model Summary of Hypotheses Testing

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.319	4	17.330	147.187	.000[b]
	Residual	34.851	296	.118		
	Total	104.170	300			

a. Dependent Variable: Trust

b. Predictors: (Constant), PR, PU, SR, PEOU

Table 4: ANOVA of Hypotheses Testing

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.755	.076		23.070	.000					
	PU	.283	.055	.424	5.177	.000	.707	.288	.174	.169	5.927
	PEOU	.338	.065	.455	5.233	.000	.734	.291	.176	.150	6.681
	SR	-.535	.058	-.739	-9.311	.000	.545	-.476	-.313	.179	5.577
	PR	.416	.054	.612	7.746	.000	.711	.411	.260	.181	5.517

a. Dependent Variable: Trust

Table 5: Coefficients of Hypotheses Testing

The model summary table can reflect the strength of the relationship between the model and the dependent variable. R embodies the linear correlation between the observed value of the dependent variable and the predicted value of the model, and is the multivariate correlation coefficient. R is 0.816, which is a relatively large value, indicating that the relationship between the model and the variable is strong.

The square of R, the coefficient of determination, is the square of the multiple correlation coefficient. The results show that the model explains 66.5% of the time variation. The analysis of ANOVA tables is a method of testing the acceptability of a model. The regression line explains the change information of the model. The remaining lines explain the change information outside the model. The significance value of the F statistic is less than 0.05, which is 0.000, so the change in the model interpretation is not accidental. From the coefficient table analysis, the sig coefficients of the four independent variables in the table are all 0.000, which are significant coefficients. It also shows that these variables contribute a lot to the whole model research. So, Therefore, the hypothesis is supported.

According to the data above, the Pearson correlation for preceived usefulness, preceived ease of use and preceived risks is 0.703, 0.734 and 0.711 respectively, both exceeding 0.7, so the effect size of these three independent variables is very large. The Pearson correlation of sellers' reputation is 0.545, exceeding 0.5, and the effect size is above medium. The model summary table can reflect the strength of the relationship between the model and the dependent variable. R is 0.816, which is a relatively large value, indicating that the relationship between the model and the variable is strong.The square of R, the coefficient of determination shows that the model explains 66.5% of the time variation.The analysis of ANOVA tables is a method of testing the acceptability of a model. The significance value of the F statistic is less than 0.05, which is 0.000, so the change in the model interpretation is not accidental. From the coefficient table analysis, the sig coefficients of the four independent variables in the table are all 0.000, which are significant coefficients. It also shows that these variables contribute a lot to the whole model research.

DISCUSSION AND CONCLUSION

The model summary table can reflect the strength of the relationship between the model and the dependent variable. R is 0.816, which is a relatively large value, indicating that the relationship between the model and the variable is strong.The square of R, the coefficient of determination shows that the model explains 66.5% of the time variation. The analysis of ANOVA tables is a method of testing the acceptability of a model. The significance value of the F statistic is less than 0.05, which is 0.000, so the change in the model interpretation is not accidental.

From the coefficient table analysis, the sig coefficients of the four independent variables in the table are all 0.000, which are significant coefficients. It also shows that these variables contribute a lot to the whole model research. So, therefore, Null Hypothesis is supported. The models can be predicted by Perceived usefulness, perceived ease of use of e-commerce sites, the reputation of sellers and perceived risks

The first is a suggestion for the shopping website. The safety of online shopping is very important for shopping website. Shopping website should constantly improve all aspects of online shopping, such as purchasing and payment; Simplify the process of online shopping so that consumers can simply carry out the operation process of online shopping; Allow all consumers and businesses to carry out real-name authentication to ensure the authenticity and accuracy of information; Change those unreasonable shopping terms to protect the rights and interests of consumers and merchants to the greatest extent. Shopping website should also be improved in consumer information protection and other aspects to prevent the disclosure of consumer and business private information.

The limitations of this study are shown below. First, this study only received data from 307 e-questionnaires. The sample size is relatively small, and there are some factors that make it difficult to find the difference from the statistics. Because this study was only conducted in Shanghai and did not understand the consumer situation in other cities in China, the data was not comprehensive enough. Due to limited research time and resources, there is no way to investigate everyone in Shanghai. If you want more accurate data results, the need to calculate a larger sample size. Second, the study of literature materials may lack real-time. Previous research can serve as the basis for literature review and research projects, but may not meet current development needs.

The importance of academia lies in understanding the academic frontier, industry dynamics and relationship with related fields of e-commerce industry. Grasp industry trend, facilitate the determination of government investment direction. Research can help the retail industry adjust its development direction and give full play to its advantages.

The significance of this study is to study the biggest advantages and future development of China's e-commerce model by describing the phenomenon of shopping on the Chinese network and combining the development of China's e-commerce model at home and abroad (Zhong and Ying, 2018). First of all, e-commerce is the inevitable product of the continuous development of the Internet age, and also the new direction of the application of network technology. The development of e-commerce has driven the popularity of shopping phenomenon on the global Internet and promoted the rapid development of B2C, C2C and other e-commerce models (Yu, Balaji and Khong, 2015). In the future research, I will make improvements based on the deficiencies of this research. In this study, due to limited time and resources, the understanding of consumers is not comprehensive and meticulous. In the future research, I will segment consumers from the perspective of income or culture, and study their consumption level and attitudes towards online shopping respectively.

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