

# The Empirical Study of WeChat Interactive Effects on Consumer Online Shopping Intention

Based on related theory of the perceived risk and the trust

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**Abstract:** The development of the Internet has dramatically changed people's life way, In addition to that, online shopping has also changed people's life. But because of its virtual shopping environment result in consumers have high level of perceived risk and lack of trust, which becomes the main factors to hinder the online shopping. WeChat is one of the most mainstream application, which set up a mutual communication platform also is an excellent platform of social relationship with acquaintances. Many e-commerce sellers have begun to use WeChat interaction as a tool to influence consumers' purchase intention. This paper discussed the relationship between WeChat interaction and the consumer purchase intention under the background of e-commerce. This paper adopted online questionnaire to obtained data, using the Spass22 software analyzes the relationship between the WeChat interaction, perceived risk, trust and consumer purchase intention and analyzes mechanism of the WeChat interaction effects on online shopping intention, to verify the effectiveness of the proposed basic assumptions.

**Keywords:** Perceived risk; E-commerce; WeChat; Purchase intention

## 1. Introduction

In recent years, China's e-commerce made great development. The China electronic commerce research center survey data show that China's e-commerce market turnover reached 7.63 trillion yuan in the first half of 2015, which up 30.4% from a year earlier[1]. In addition to that, the latest CNNIC (2014) survey data show that the number of Internet users in China reached 649 million by 2014 and the Internet penetration rate reached 47.9% [2]. Good prospects for the development of e-commerce in China, however, the permeability of e-commerce is not high. According to CNNIC survey shows that only 55.6% of Internet users online shopping, which has a big gap relative to the developed countries, for example, Online shopping permeability is 74.9% in the United States [3]. According to CNNIC survey, lack of trust and high perceived risk are the main causes of this phenomenon. WeChat which is based on the Internet, is one of the most mainstream application. WeChat interaction and circle of friends more and more become a marketing tool. Businesses through WeChat show goods and communicate with customers with the lowest cost to maximize marketing effect. WeChat combines text, video and voice, which provides businesses with a good opportunity to show customers. At the same time, customers can enquire more information about goods, service and busi-

ness through WeChat interaction. Through this interaction to affect consumers' perceived risk as well as trust in online shopping and positively impact on consumer purchase intention.

## 2. Literature Review and Research Hypothesis

### 2.1. Trust

Trust is a multidisciplinary concept, marketing research focuses on the angle of relationship marketing and channel marketing. Anderson&Narus [4] think that trust is a kind of belief, in other words, the other will be conducive to their own behavior, and not to damage the expected behavior of trading partners. In e-commerce, consumer trust is about overall trust of online transactions, consumers willing to put their own interests under the influence of each other trader and online trade environment. In general, uncertainty and risk are the main causes of trust. Trust can reduce the uncertainty and risk in the transaction process and save transaction costs. Under the environment of electronic commerce, which involves a high degree of uncertainty and risk. A large number of studies have found that trust can reduce the uncertainty and risk in online transactions and form a positive purchase attitude and purchase intention. Pavlou [5] empirically found that under the e-commerce environment, the

trust of the consumers will have a positive impact on their purchase intention. So this study puts forward assumptions:

H1: Trust has a positive correlation with the consumers online purchase intention

## 2.2. Consumers' perceived risk

The concept of perceived risk was proposed by Harvard University's Bauer [6], he thinks that the causes of perceived risk is that the consumer action may produce unexpected results, and these results may be unpleasant. Nena Lim [7] defined online shopping perceived risk as: when buying a product or service through the network, the degree of consumers will suffer. When consumers online shopping, they can't see goods, which result in a higher perceived risk than traditional shopping channels. The greater the perceived risk of online shopping, it is not easy for consumers shopping online. So this study puts forward assumptions:

H2: perceived risk has a negative correlation with consumer online purchase intention

## 2.3. WeChat interaction

WeChat interaction is information communication between users and the information publishers, or the communication between the user and the user on the WeChat platform. When put WeChat marketing into WeChat interactive, WeChat interaction is divided into two dimensions: interpersonal interaction and content interaction. Interpersonal interaction is that on the platform of WeChat, user communicate with other user or business. Content interaction is refers to the degree of user participation in WeChat content.

Consumer ' perceived risk, a large part of the reason is that the lack of enough information or experience. In other words, if consumers and businesses have enough interaction, sharing purchase experience with other buyers and obtain sufficient knowledge, so perceived risk will be greatly reduced. Bauer [8] (1960) indicated that only a low risk product not need to collect any information when make the purchase decision. Consumers will through various channels to collect the information to reduce the perceived risk before buying. So this paper put forward the following hypothesis:

H3: WeChat interaction can reduce the consumer's perceived risk in online shopping

H3-1: Interactive content can reduce the consumer's perceived risk in online shopping

H3-2: Interpersonal interaction can reduce consumers' perceived risk in online shopping

Sapient [9] (1999) proposed the six factors that affect trust in electronic commerce, three factors are related to the interaction between businesses and consumers. Tang Jiageng [10] (2006) think that, through positive interaction between the two sides to established trust mechanism

ism is the so-called trust establishment mechanism process. So this paper puts forward the following hypothesis:

H4: WeChat interaction has a positive correlation with consumer trust in online businesses

H4-1: Content interaction has a positive correlation with consumer trust in online businesses

H4-2: Interpersonal interaction has a positive correlation with consumer trust in online businesses

## 2.4. The theoretical model

This paper associated with WeChat interaction, perceived risk, trust and consumer purchase intention and deduce its theoretical model as shown in Figure 1. Consumers through WeChat interaction can know more about enterprise brand and product, to enhance the trust of the consumer to the enterprise or product and reduce the consumer perceived risk, thus influence consumer purchase intention.

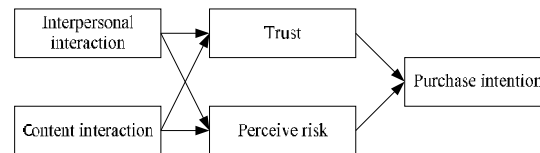


Figure 1. The theoretical model

## 3. Research Method and Sample Data

### 3.1. Sample and data

This study adopts online questionnaire, the website is [www.sojump.com](http://www.sojump.com).

This research adopts the measuring scale which has through small-scale test, then amend and adjust the measuring scale, then eventually formed the measuring scale used in this study. In the end recycling 188 questionnaires, excluding the invalid questionnaire which without use WeChat, eventually collecting 186 valid questionnaires.

### 3.2. The questionnaire and measurement

#### 1) The questionnaire

Prior to design the questionnaire, Summarizing previous scholars on the perceived risk, trust, interactive measurement indicators, and in-depth interviews with consumers which have online shopping experience at the same time also use WeChat, then get the multi-item measurement in this study.

This questionnaire contains six parts: the consumer perceived risk, the content interaction, interpersonal interaction, consumers trust, consumers purchase intention and consumers basic situation. This questionnaire takes Likert magnitude scale, 1 represents strongly disagree, 5 representative couldn't agree more.

2) Descriptive statistical analysis

In the sample, men accounted for 54.01% , women accounted for 45.99%. Since most used is student sample, so 18-25 years old people accounted for 74.33% in the sample, and the proportion of the undergraduate course accounted for 41.18%. 54.55% of people use WeChat more than 2 years of history. 52.94% of people login more than 7 times every day

3) Reliability analysis of the measuring scale

First of all, must to carry out reliability analysis on the collected questionnaires. Reliability analysis is to point to analysis the reliability of data, which is to check whether the questionnaire has intrinsic consistency, describe the content is accurate and the analysis of the variable is stable. This study uses Cronbach alpha coefficient to analysis whether the design of the questionnaire reliable. Cronbach alpha coefficient, generally range 0 to 1, which more close to 1 shows that the reliability better. Most of scholars agree that Cronbach alpha coefficient over 0.70 is accept, more than 0.85 shows very good, less than 0.60 shows should be modified. The Cronbach alpha coefficient of this study is shown in Table 1.

From the table above, the reliability of the questionnaire is good, which reached 0.865. Show that the project design of the questionnaire is stable, which has good internal consistency. Furthermore deletes any one do not significantly increased reliability value, so keep all statements.

4) Validity analysis of the measuring scale

Validity is that truthfulness or effectiveness of the measuring scale. This study uses the factor analysis to analysis structure validity of the measuring scale, which is mainly divided into four steps: (1) calculate the correlation matrix (2) the factor extraction (3) factor rotation (4) calculate the factor score (5) explain the factors. This paper will use KMO test and Bartlett sphere test to measure the correlation between each item. When KMO value is greater than or equal to 0.5, and the absolute value of load coefficient of each measurement item is greater than 0.5, which show that can put the measurement topic extraction as a factor, and carry on next analysis. As shown in Table 2.

Table 1. The reliability statistics

Cronbach's Alpha value	standardization project of Cronbach's Alpha value	The number of projects
0.865	0.870	17

Table 2. Validity analysis of the measuring scale

	KMO measure	Bartlett sphere test			the total variance expalained			statements load value
		chi-square	df	Sig	total	variance%	total%	
Consumers' perceived risk								
Q1	0.846	558.835	15	0.00	3.309	85.218	85.218	0.755
Q2								0.780
Q3								0.893
Q4								0.767
Q5								0.881
Q6								0.754
content interactive								
Q9	0.714	191.193	3	0.00	2.196	73.165	73.165	0.836
Q10								0.862
Q11								0.868
Interpersonal interaction								
Q12	0.705	166.165	3	0.00	2.125	70.824	70.824	0.860
Q13								0.830
Q14								0.833
Consumer trust								
Q15	0.765	130.421	1	0.00	1.713	85.662	85.662	0.926
Q16								0.926
Consumer purchase intention								
Q17	0.786	212.25	3	0.00	2.201	73.323	73.323	0.871
Q18								0.903
Q19								0.791

KMO test. KMO inspection for sampling adequacy, its value is more close to 1 indicates that the measuring scale is more suitable for factor analysis, which can be

seen from the above table, the KMO value of the consumer perceived risk, the content interaction, interpersonal interaction and consumers purchase intention is in

0.7 above, shows that all satisfy the premise of factor analysis.

Bartlett sphere test. Bartlett sphere test is used to test the correlation between variables. Can be seen from the above table, the significant value of each measurement item is  $0.00 < 0.05$ , shows that there are many common factors between the sample correlation matrix, further illustrate variables suit for factor analysis.

The total variance explained. The total variance explained indicates that extract factors can explain the level of the variable volume. Perceived risk variables, which total seven multi-item, extracting three factors find the total variance explained only 50%, a closer examination reveals that the seventh multi-item correlation with other variables is very weak, only 0.532, thus eliminating the seventh multi-item. Then carry out factor analysis found that three factors were extracted explained 85.218% of the total variable, the effect of factor analysis is good. Can be seen from the above table , the rest of the total

variance explained are over 70%,the factor analysis results of the measuring scale are good.

The statement load values. From the above table, the measuring scale of statements load value is above 0.7, and the measuring scale statements of interpersonal interaction, content interaction, trust and consumers purchase intention on a dimension, shows that the structure of the measuring scale has good validity. In the consumer perceived risk in multi-item, three factors were extracted, statements load value on the three factors respectively load is higher, also shows the structure of the measuring scale has good validity.

#### 4. The Correlation Analysis

In the last section of the factor analysis, this section will use the results of factor analysis to do correlation analysis, to explore the correlation between variables. This study adopts the Pearson correlation analysis, with Two - Tailed to test whether there are relationship between each variable and the positive and negative of the relationship.

**Table 3: The correlation analysis**

		content interaction	interpersonal interaction	consumer trust	Consumers' perceived risk	consumer's purchase intentions
content interaction	Pearson correlation	1	0.565**	0.498**	0.085	0.509**
	Sig( Two - Tailed)		0	0	0.249	0
	N	186	186	186	186	186
interpersonal interaction	Pearson correlation	0.565**	1	0.438**	-0.192**	0.561**
	Sig( Two - Tailed)	0		0	0	0
	N	186	186	186	186	186
consumer trust	Pearson correlation	0.498**	0.438**	1	-0.459**	0.659**
	Sig( Two - Tailed)	0	0		0	0
	N	186	186	186	186	186
Consumers' perceived risk	Pearson correlation	0.085	-0.192**	-0.459**	1	-0.339**
	Sig( Two - Tailed)	0.249	0	0		0
	N	186	186	186	186	186
consumer's purchase intentions	Pearson correlation	0.509**	0.561**	0.659**	-0.339**	1
	Sig( Two - Tailed)	0	0	0	0	
	N	186	186	186	186	186

Can be seen from the table above:

The Sig of correlation coefficient test p of consumer trust and consumer purchase intention is  $0.00 < 0.01$ , simple

correlation coefficient  $r = 0.659$ , which indicates that consumer trust has a positive correlation with consumer intention, so H1 verified.

The Sig of correlation coefficient test  $p$  of consumers perceived risk and purchase intention is  $0.00 < 0.01$ , simple correlation coefficient  $r = 0.339$ , shows that consumers perceived risk has a negative correlation with purchase intention, so H2 verified.

The Sig of correlation coefficient test  $p$  of content interaction and perceived risk is  $0.249$ , simple correlation coefficient  $r = 0.085$ , shows that content interaction is not obvious correlation with the consumer perceived risk, so H3-1 was not verified.

The Sig of correlation coefficient test  $p$  of content interaction and consumers trust is  $0.00$ , simple correlation coefficient  $r = 0.498$ , shows that content interaction has a positive correlation with consumer trust, H3-2 verified, so H3 has not been fully verified.

The Sig of correlation coefficient test  $p$  of interpersonal interaction and consumer perceived risk is  $0.00$ , simple correlation coefficient  $r = 0.192$ , shows that interpersonal interaction has a negative correlation with consumer perceived risk, so H4-1 verified.

The Sig of correlation coefficient test  $p$  of interpersonal interaction and consumers trust is  $0.00$ , simple correlation coefficient  $r = 0.438$ , shows that interpersonal interaction has a positive correlation with consumers trust, H4-2 verified, so the H4 fully verified.

## 5. Conclusions

(1) The trust influence on consumer purchase intention in e-commerce environment

This study found that consumers trust has a positive correlation with consumer purchase intention in e-commerce environment. Trust as an intervening variable, which can promote consumers to participate in the transactions, as well as can reduce transaction costs and reduce speculation and so on. The higher trust consumers have, it is easier for them to choose online shopping.

(2) Consumer perceived risk influence on consumer purchase intention in e-commerce environment

Corbitt [11] in his study mentioned that perceived risk will affect consumer experience, the higher the consumer perceived risk of online shopping, the more it is not easy for them to choose online shopping. Kuhlmeier [12] in the study of network shopping also think that perceived risk has a negative correlation between consumer online shopping intention. In this paper, we also empirically confirmed this point of view, that is, perceived risk has a negative correlation with online shopping intention. Relative to offline shopping, due to consumers can't really touch goods and not sure whether the information about the product or service is true or not, which makes consumers has higher perceived risk when network shopping. So perceived risk of online shopping is higher than the

perceived risk of traditional shopping channels. Many consumers would prefer to spend more time and money to the store to shopping, is not willing to take risks to try online shopping, so the higher perceived risk will become a stumbling block to block consumers to online shopping.

(3) WeChat content interaction and interpersonal interaction effect on consumer perceived risk

The main reason cause consumer's perceived risk is information asymmetry, or consumer lack of experience. We are able to realize that in the environment of the network transactions, if consumers can through WeChat interaction to obtain sufficient information and the knowledge about the related products, which can reduce the consumer's perceived risk, thereby promoting consumers to the online shopping. In previous studies, Bauer [13] think that when consumers to buy a commodity, they need to collect a large number of information through various channels, but if he can't obtain enough information, the consumer's perceived risk will increase. Mitchill [14] believe that consumers willing to familiar and more reliable store to buy the product, which can reduce their perceived risk.

This study empirically confirmed that WeChat content interaction is able to increase consumers' perceived risk, and interpersonal interaction will reduce consumers' perceived risk (not statistically significant). This conclusion can be explained such that consumers through WeChat content interaction may get risk information, but through directly WeChat interaction they can gain more experience about product purchase and product knowledge. So in WeChat interaction, the businessman should ensure WeChat news' quality, increase news' reliability, and reduce the false information, but also should pay more attention to the online customer service, should respond to the consumers' problems timely and efficiently.

(4) WeChat content interaction and interpersonal interaction effects on consumer trust

This study empirically confirmed that interpersonal interaction can improve the Consumers' trust of online shopping, content interaction can also improve the consumers' trust of online shopping. In other words, we can through the process of WeChat interaction to establish the trust. Although lack of face-to-face interaction, But through WeChat interaction still can enhance consumer trust in online businesses. With the development of e-commerce, with the development of e-commerce, the relevant specification also improved, people gradually increase knowledge of e-commerce, so consumer trust in electronic commerce also gradually increased.

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