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Winter 12-4-2016

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#### **Recommended Citation**

Zeng, Yitang; Cao, Sheng; and Li, Li, "Exploring the Factors Affecting Consumers' Online Agricultural Products Purchase Behavior Based on the UTAUT Model" (2016). *ICEB 2016 Proceedings*. 73. https://aisel.aisnet.org/iceb2016/73

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## **Exploring the Factors Affecting Consumers' Online Agricultural Products Purchase Behavior Based on the UTAUT Model**

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#### **ABSTRACT**

The online agricultural products purchase has become a trend of consuming, but it is influenced by many factors. Based on the UTAUT (unified theory of acceptance and use of technology) model, some of the factors which include performance expectancy, effort expectancy, social influence, perceived risk, facilitating conditions, consumer innovativeness and purchase intention are chosen to build a research framework, and several hypotheses are proposed. Finally, a survey is conducted by questionnaires, and 264 valid samples are obtained. The research model is verified by using AMOS, and a modified model is built. Meanwhile, group testing is carried out to verify the correctness of each sub hypothesis.

The empirical results show as follows: effort expectancy has a significantly positive effect on consumers' online agricultural product purchase intension. Performance expectancy, facilitating conditions and purchase intention have a significantly positive effect on consumers' online agricultural products purchase behavior. The effect of social influence and perceived risk on the consumers' online agricultural product purchase intension is not significant. Some suggestions are put forward for the agricultural product online stores to meet the needs of the consumers and to improve the online agricultural products trade according to the empirical results.

KeyWords: online agricultural products purchase; purchase behavior; purchase intention; UTAUT; structural equation model

#### **BACKGROUND**

In recent years, with the increasing coverage of Chinese network, the optimizing of distribution industry and online banking, and the improving of laws and regulations of e-commerce, the environment of online shopping is gradually improved. Consequently, the scale of online shopping is developing greatly, and the consumers' habit of online shopping is fostered gradually. At the meantime, the marketing channels of agricultural products are expanded from offline to online. The online agricultural products purchase is becoming common consuming behavior of people. Compared to the traditional way of trade, the online agricultural products purchase can avoid the limitation of location and time, and it will promote the trade of agricultural products and reduce the cost of trade, and it will also stimulate the consumers' desire of consuming. In addition, the e-marketing of agricultural products helps farmers take part in setting the price of agricultural products, so that the farmers increase their incomes.

However, the e-commerce of agricultural product in our country is still in the primary stage, and many problems of it need to be researched, such as the factors affecting consumers' online agricultural products purchase. It is of great significance to know which factors will stimulate consumers to purchase agricultural products online, and which factors will hinder consumers to purchase agricultural products online. Clearing about these factors will help the storekeepers to promote the e-marketing of agricultural products.

#### THE OVERVIEW OF UTAUT MODEL

A new technology does not naturally get people's recognition. A large number of studies show that there are many factors affect users' intention to accept new technology in the process of development and promotion. All kinds of technology acceptance theories study the psychological and external factors which affect users' acceptance attitude of new technology from the subjective and objective view[1]. In the area of technology acceptance research, academic circles put forward many models, such as the theory of reasoned action (TRA), the theory of planned behavior (TPB), the technology acceptance model (TAM)

and its modified model (TAM2 and UTAUT)[2].

UTAUT model was raised in 2003 by Venkatesh et al[3]. It integrates more than 20 variables from eight theory models including the TRA, the TAM, the Motivational Model (MM), the Theory of Planned Behavior (TPB), the Decomposed Theory of Planned Behavior (DTPB), the Model of PC Utilization (MPCU), the Innovation Diffusion Theory (IDT), and the Social Cognitive Theory(SCT). The empirical test results show that the explanatory power of technology acceptance of UTAUT model closes to 70% [4]. The main variables of UTAUT model are performance expectancy, effort expectancy, social influence and facilitating conditions. In addition, there are four moderators that will influence the effect of the determinants on behavioral intention and/or use behavior: gender, age, experience with the system and voluntariness of use. Performance expectancy defined as the degree to which an individual believes that using the system will help him or her to achieve increases in job performance. And its segmentation source variables include perceived usefulness, job fit and achievement expectancy. Effort expectancy defined as the degree of ease associated with the use of the system. And its segmentation source variables include the perceived ease of use and the complexity of the system. Social influence defined as the degree to which an individual perceives that important others believe he or she should use the new system. And its segmentation source variables include social factors and image / compatibility. Facilitating conditions defined as the degree to which an individual believes that an organizational and a technical infrastructure exists to support use of the system. And its segmentation source variables include facilitating environment and perceived behavior control. Behavioral intention and facilitating conditions determine the use behavior directly, and performance expectancy, effort expectancy, social influence affect the use behavior indirectly through affecting behavioral intention.

UTAUT model is one of the widely used, reliable and effective models to study the users' acceptance of IT technology. UTAUT model can help the strategy makers or managers understand the factors of behavioral intention of accepting new technology better. It is a measure for managers to evaluate the effectiveness of the new technology to be introduced. It helps making marketing or training decisions by using UTAUT model to predict and explain the behavior of users' technology acceptance. UTAUT model shows in Figure 1:

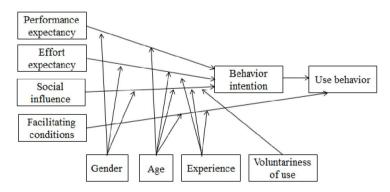


Figure 1: UTAUT Model (Venkatesh & Davis, 2003)

#### RESEARCH MODEL AND HYPOTHESES

Firstly, the UTAUT model is taken as the basic model of user acceptance model of online shopping.

Secondly, the user acceptance model of online shopping is supplemented based on perceived risk theory and diffusion of innovativeness theory. In addition to the "performance expectancy", "effort expectancy", "social influence", "facilitating conditions", two variables such as "perceived risk" and "consumer innovativeness" are added.

Thirdly, the moderators of the UTAUT model are modified to make the model specific. The final moderators are gender, online purchase frequency of agricultural products and consumer innovativeness.

An initial model of this paper is built. It is shown in Figure 2.

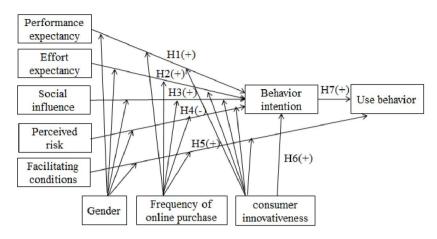


Figure 2: The research model

The following hypotheses are presented in this paper:

#### (1) Performance expectancy and online agricultural product purchase intension.

Performance expectancy refers to the degree to which an individual believes that online agricultural products will help him or her to get good shopping experience. Generally speaking, if the consumers have higher performance expectancy on online agricultural products purchase, their intention on online agricultural products purchase is stronger. Compared to men, women purchase agricultural products more often, and they have higher performance expectancy on online agricultural products purchase. The consumers with higher frequency of purchasing agricultural products online tend to have higher performance expectancy, because they often purchase agricultural products online, and they wish to improve their life much by it. Some scholars believe that consumer innovativeness will affect consumers' perception and decision making process, Agarwal and Prasad (1998) [5], Dabholkar and Bagozzi (2002) [6] believe that the consumers with higher innovativeness are easier to accept new things, and they have greater expectation about new things can benefit their work and life.

Based on the analysis above, we propose the following hypotheses:

H1: Performance expectancy will positively affect the consumers' online agricultural product purchase intension.

H1a: Performance expectancy will positively affect the consumers' online agricultural product purchase intension, and it affects female consumers greater.

H1b: Performance expectancy will positively affect the consumers' online agricultural product purchase intension, and it affects the consumers with higher frequency of purchasing agricultural products online greater.

H1c: Performance expectancy will positively affect the consumers' online agricultural product purchase intension, and it affects the consumers with higher innovativeness greater.

#### (2) Effort expectancy and online agricultural product purchase intension

Effort expectancy refers to the degree of ease associated with the use of the shopping system for purchasing agricultural products online. If consumers perceive that the shopping system for purchasing agricultural products online is easy, their intention to purchase agricultural products online is stronger. If the operating process is relatively simple and easy to master during online agricultural products purchase, the enthusiasm of consumers shopping online will grow up. Whether the online

agricultural products purchase can help consumers finish their work easily and conveniently or not is a concern when they are going to purchase agricultural products online. Generally speaking, female consumers are more likely responsible for housework, and purchasing agricultural products is one of them. If purchasing agricultural products online is convenient and quick, it will be good for women to reduce their intensity of work. The consumers with higher frequency of purchasing agricultural products online have no difficulties in operating, because they are familiar with it. The consumers with high innovativeness are initiative and capable in accepting new things, and it is easy for them to purchase agricultural products online.

Therefore, the following hypotheses are proposed:

H2: Effort expectancy will positively affect the consumers' online agricultural product purchase intension.

H2a: Effort expectancy will positively affect the consumers' online agricultural product purchase intension, and it affects female consumers greater.

H2b: Effort expectancy will positively affect the consumers' online agricultural product purchase intension, it affects the consumers with higher frequency of purchasing agricultural products online greater.

H2c: Effort expectancy will positively affect the consumers' online agricultural product purchase intension, and it affects the consumers with higher innovativeness greater.

#### (3)Social influence and online agricultural product purchase intension

Social influence refers to the degree to which an individual perceives that important others believe he or she should purchase agricultural products online. The consumers who purchase agricultural products online are influenced not only by surrounding community (such as colleagues, friends and relatives) but also by various information from relevant social network. When the consumers' relatives and friends always purchase agricultural products online or show positive attitude towards it, the consumers' intention to purchase agricultural products online will be strong. Especially, the women, the consumers with low frequency of purchasing agricultural products online and the consumers with low innovativeness will be affected by social influence. There are several reasons for this. First, Female consumers are more sensitive, and they will be affected by the surrounding community and environment easily. Second, consumers with low frequency of shopping online are not familiar with the operation of online shopping and the online high-quality agricultural product shops. Third, the consumers with low innovativeness are insensitive to new things, and they are not enthusiasm to care and learn new things. So, these three types of people always follow the suggestions of their relatives and friends when they are going to purchase agricultural products online.

Therefore, the following hypotheses are proposed:

H3: Social influence will positively affect the consumers' online agricultural product purchase intension.

H3a: Social influence will positively affect the consumers' online agricultural product purchase intension, and it affects female consumers greater.

H3b: Social influence will positively affect the consumers' online agricultural product purchase intension, it affects the consumers with lower frequency of purchasing agricultural products online greater.

H3c: Social influence will positively affect the consumers' online agricultural product purchase intension, and it affects the

consumers with lower innovativeness greater.

#### (4) Perceived risk and online agricultural product purchase intension

For the perceived risk in the field of e-commerce, Dowhng[7], Pavlou[8] point out that online shopping is very different from traditional shopping. It is more convenient and more efficient, but there are more risks behind it. And these risks will affect the consumers' enthusiast of online shopping. Generally speaking, if the consumers perceive more risks, they are more reluctant to purchase agricultural products online. Especially, the women, the consumers with low frequency of purchasing agricultural products online and the consumers with low innovativeness will be affected more by perceived risk. Compared with male consumers, female consumers are more sensitive, fragile, delicate, and lack of a sense of security. The consumers with low frequency of purchasing agricultural products online have strong sense of risks. The consumers with low innovativeness are suspicious and shilly-shally. So, these three types of people are always affected by perceived risk when they are going to purchase agricultural products online.

Therefore, the following hypotheses are proposed:

H4: Perceived risk will negatively affect the consumers' online agricultural product purchase intension.

H4a: Perceived risk will negatively affect the consumers' online agricultural product purchase intension, and it affects female consumers greater.

H4b: Perceived risk will negatively affect the consumers' online agricultural product purchase intension, and it affects the consumers with lower frequency of purchasing agricultural products online greater.

H4c: Perceived risk will negatively affect the consumers' online agricultural product purchase intension, and it affects the consumers with lower innovativeness greater.

#### (5) Facilitating conditions and the online agricultural product purchase behavior

Facilitating conditions defined as the degree to which an individual believes that an organizational and a technical infrastructure exists to support their online agricultural products purchase. Convenience, ease of operation, nutritional value, quality and price are all facilitating conditions. Typically, if the facilitating conditions are stronger, the possibility of consumers' purchasing agricultural products online will be greater. For women, purchasing agricultural products is their daily work, and they tend to purchase agricultural products online when the facilitating conditions are stronger. Consumers with high frequency of online shopping won't purchase agricultural products online without enough facilitating conditions. Consumers with low innovativeness are not enthusiasm and active to online shopping, only are there enough facilitating conditions, will they purchase agricultural products online.

Therefore, the following hypotheses are proposed:

H5: Facilitating conditions will positively affect the consumers' online agricultural product purchase behavior.

H5a: Facilitating conditions will positively affect the consumers' online agricultural product purchase behavior, and it affects female consumers greater.

H5b: Facilitating conditions will positively affect the consumers' online agricultural product purchase behavior, and it affects the consumers with higher frequency of purchasing agricultural products online greater.

H5c: Facilitating conditions will positively affect the consumers' online agricultural product purchase behavior, and it affects the consumers with lower innovativeness greater.

#### (6) Consumer innovativeness and online agricultural product purchase intension

In the past the studies, consumer innovativeness got much attention due to it is related to the consumer behavior of accepting and purchasing a new product.

Consumer innovativeness will stimulate consumers to learn the operation of online shopping. Consumers with high innovativeness will accept the way of purchasing agricultural products online easily. The study[9] has shown that earlier recipients will use the Internet at home and work more frequently when they perceive more usefulness of network by using it, and they will show much more intention to use online shopping than the later recipients. Consumers with high innovativeness are more easer to accept online shopping.

Based on the analysis above, the following hypothesis is proposed:

H6: Consumer innovativeness will positively affect the consumers' online agricultural product purchase intension.

#### (7) Online agricultural product purchase intension and online agricultural product purchase behavior

Intention governs a certain behavior, and the behavior of a person is usually produced under the control of the intention. When consumers have the intention to buy agricultural products online, they will take the actual behavior.

Therefore, the following hypothesis is proposed:

H7: Online agricultural product purchase intension will significantly affect the consumers' online agricultural product purchase behavior.

#### DATA ANALYSIS AND HYPOTHESIS TESTING

#### **Variable Measurement and Data Collection**

According to the model and object of this paper, there are two dependent variables (online agricultural product purchase intension, online agricultural product purchase behavior) and six independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, perceived risk, consumer innovativeness). In order to ensure the reliability and validity of the measurement, the measure indexes of each variable were modified based on the relatively mature indexes at home and abroad under the consideration of the actual situation of China. The measure indexes of initial questionnaire were modified after consulting the experts in e-commerce area. Then, questionnaire was modified according to the feedback of preliminary investigation on ten students. All of the items were modified to fit into the five-point Likert-scale format (1 = strongly disagree, 2 = slightly disagree, 3 = neither agree nor disagree, 4 = slightly agree, and 5 = strongly agree).

The data for this paper is collected by online questionnaire survey. The link address is http://l.sojump.com/jq/3186551.aspx. The questionnaire survey was carried out through the QQ group, Forum, Micro-blog, Wechat in May 2016. A total of 305 respondents were received. After eliminating invalid responses, a total of 264 usable questionnaires were got for data analysis and hypothesis testing.

#### Reliability and Validity Analysis

The reliability of measurement is higher, the scales or questionnaires are more stable. In this paper, the reliability of questionnaire is verified through the SPSS, and Cronbach's Alpha is adopted as the reliability standard which must be beyond 0.7. The result shows Cronbach's Alpha of the scales is beyond 0.7. So the reliability of variables is good. The percentage of

explained variance is beyond 60%, and the significant probability is 0.00. So the validity of the scales is good. As shown in Table 1.

Table 1: The results of reliability and validity test

Construct	Number of item	Cronbach's α	KMO	percentage of explained variance (%)	Sig
performance expectancy	6	0.890	0.860	65	0.00
effort expectancy	3	0.795	0.707	71	0.00
social influence	6	0.840	0.750	60	0.00
perceived risk	5	0.801	0.729	56	0.00
facilitating conditions	4	0.777	0.500	89	0.00
consumer innovativeness	4	0.851	0.736	69	0.00
Online agricultural product purchase intension	4	0.786	0.691	62	0.00
Online agricultural product purchase behavior	2	0.780	0.500	89	0.00

#### **Hypothesis Testing**

In this paper, the structural equation model is applied to test the relationships among 8 variables. The path coefficients of the model are estimated by running AMOS, the results are shown in Table 2.

Table 2: Initial standardized structural estimates and tests of hypotheses

Hypotheses	Standardized path coefficient	Estimates	S. E.	t-value	P	Results
H1	0.126	0.114	0.107	1.068	0.285	Reject
H2	0.567	-0.550	0.147	3.745	***	Accept
H3	-0.088	-0.104	0.129	-0.801	0.423	Reject
H4	0.079	0.082	0.093	0.883	0.377	Reject
H5	0.422	0.318	0.064	4.496	***	Accept
Н6	0.180	0.114	0.062	0.183	0.064	Reject
H7	0.542	0.650	0.121	5.385	***	Accept
Fit indexes: $\gamma^2/df=1.997$ ; GFI=0.706; AGFI=0.649; NFI=0.679; IFI=0.847;						
CFI=0.805; RMSEA=0.087;*** ≤0.05						

The above table shows that the absolute value "t" of H1, H3, H4, H6 is lower than 1.96, and P are not significant at 0.05 level. The absolute value "t" of H2, H5, H7 is beyond 1.96, and P are significant at the 0.05 level. It shows that the quality of the model is not satisfying. Therefore, it is necessary to modify the model.

#### **Model Modification**

According to the analysis of structural equation model, a causal relation between performance expectancy and online agricultural product purchase behavior is established, and the causal relation between performance expectancy and online agricultural products purchase intention is cancelled. The modified model is shown in Fig.3.

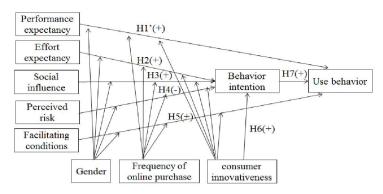


Figure 3: The modified model

The path coefficients of the model are evaluated by running software Amos. The specific results are shown in Table3:

H1'	0.366					
	0.500	0.406	0.108	3.775	***	Accept
H2	0.611	0.592	0.133	4.456	***	Accept
H3	-0.075	-0.088	0.130	-0.675	0.499	Reject
H4	0.077	0.080	0.094	0.849	0.396	Reject
H5	0.252	0.189	0.066	2.859	***	Accept
H6	0.194	0.123	0.063	1.945	0.052	Reject
H7	0.426	0.519	0.112	4.646	***	Accept
Fit indexes: χ2/df=1.965; GFI=0.710; AGFI=0.653; NFI=0.685; IFI=0.857;						

Table 3: Modified standardized structural estimates and tests of hypotheses

The above Table shows the absolute value "t" of H1 is beyond 1.96, and P reaches the significant level. It indicates the modified model is reasonable.

From table 3, the overall fitness of the modified model is improved compared with the meta-model, indicating that the modified model is reasonable. The P of H2 is less than 0.05 significant level and standard regression coefficient is 0.611, which means effort expectancy positively affect the consumers' online agricultural product purchase intension. The P of H1', H6 and H7 are less than 0.05 significant levels and standard regression coefficient are 0.366, 0.252 and 0.426 respectively, which means performance expectancy, facilitating conditions and online agricultural products purchase intention positively affect the consumers' online agricultural products purchase behavior.

#### **Group Testing**

In order to verify the hypotheses of moderators in the research framework, the standard regression coefficients between different groups were measured.

- (1) Grouping according to the gender: The samples are divided into male group and female group. The samples of male group are 100 in total, while the samples of female group are 164 in total.
- (2) Grouping according to the frequency of purchasing agricultural products online: The samples are divided into two groups, group of low frequency of purchasing agricultural products online and group of high frequency of purchasing agricultural products online. The former group is 102, while the latter group is 162.
- (3) Grouping according to consumer innovativeness: The average score of consumer innovativeness in the sample is 14. Therefore, the samples are divided into two groups: consumers whose score below 14 (consumers with low innovativeness),

and consumers whose score beyond 14 (consumers with high innovativeness). The former group is 178, while the later group is 86.

Then, model fitting of these groups of samples were carried out. The result of group test is shown in Table4

significant

Not

significant

Gender frequency of purchasing innovativeness Effect male female 1ow high low high relationship Significant. Significant. Not Significant. performance expectancy Significant Sionificant. >purchase behavior positive positive positive significant positive nositive effort expectancy Not Significant, Significant, Significant, Significant, Not >purchase intention significant positive positive positive positive significant social influence Not Not Not Not Significant. > purchase intention significant significant significant significant significant positive perceived risk Not Not Not Not Not Not

significant

Significant,

positive

significant

Significant,

positive

significant

Significant

significant

Significant,

positive

significant

Not

significant

Table 4 Group testing results

We can find that H1b, H1c, H2a, H5a, H5b, H5c are gotten support.

purchase intention

facilitating conditions

purchase behavior

#### CONCLUSION AND IMPLICATIONS

#### **Results Discussion**

Based on above research, the following main conclusions of factors affecting the consumers' online agricultural products purchase are obtained:

#### (1) Performance expectancy and online agricultural product purchase intension.

During the process of online agricultural products purchase, performance expectancy positively affects the consumers' behavior. That is to say when the consumers have stronger expectation on online agricultural products purchase which can benefit them a lot, they are more likely to take an actual action to purchase agricultural products online.

Performance expectancy positively and significantly affects the male or female consumers' online agricultural products purchase behavior, and it lays greater affect on male consumers because that compared to female consumers, male consumers are more decisive and resolute. When they aware that something can benefit them, they will take an action on it.

Performance expectancy positively and significantly affects the consumers with high frequency of purchasing agricultural products online. The main reason is that these consumers believe online agricultural products purchase is helpful, and they always purchase all kinds of agricultural products online, which is a part of their life. However, it weakly affects the consumers with low frequency of purchasing agricultural products online. Because online agricultural products purchase is not essential for them no matter how helpful it is, and performance expectancy doesn't affect their online agricultural products purchase significantly.

Performance expectancy positively and significantly affects the consumers' online agricultural products purchase behavior. It lays greater affect on the consumers with high innovativeness. The main reason is that consumers with high innovativeness are good at discovering and making use of new things when they aware that the new things can meet their needs.

#### (2) Effort expectancy and online agricultural product purchase intension

Effort expectancy positively and significantly affects the consumers' online agricultural product purchase intension. It implies that when consumer aware online agricultural purchase is easy to operate, their online agricultural purchase intention is stronger.

Effort expectancy positively affects the female consumers' online agricultural products purchase intension, and it lays weak affect on male consumers. This is because of the different characters between men and women. Generally speaking, women is delicate, their ability of dealing with complex issue pales beside men. When a new technology is easy of operating, women tend to use it, and vice versa. However, men are much stronger and curious, and they always go forward to try the new technology no matter how difficult it is.

Effort expectancy positively and significantly affects the consumers' online agricultural products purchase intension, and it lays greater affect on consumers with low frequency of purchasing agricultural products online. Effort expectancy lays greater affect on consumers with low frequency of purchasing agricultural products online. Compared with the consumers who lack experience of online agricultural products purchase, consumers who always purchase agricultural products online are familiar with the operating. So, for them, whether the online agricultural products purchase is easy or not weakly affect their purchase behavior.

Effort expectancy positively and significantly affects the online agricultural products purchase intension of consumers with low innovativeness, but it lays weak affect on consumers with high innovativeness. Consumers lack innovativeness are not good at accepting and making use of new things, and whether the new things are ease of use or not affect them greatly. Therefore, when consumers lack innovativeness aware that online agricultural products purchase is ease of use, they will choose to make use of it.

#### (3) Social influence and online agricultural products purchase intension

Social influence doesn't significantly affect the consumers' online agricultural products purchase intension. This is not consistent with the conclusion of UTAUT. The possible reason is that the social environment is pluralistic, people always pursue individuality, the relationship between people is relatively indifferent due to fast-paced way of life, and shopping is the behavior of the individual. So, consumers' online agricultural products purchase intension is not affected by social influence.

For the consumers with high innovativeness, social influence negatively and significantly affects consumers' online agricultural products purchase intention. That is to say, if consumers with high innovativeness are affected by social influence more greatly, their intention to purchase agricultural products online is weaker. The possible reason is that consumers with high innovativeness tend to pursue individuality and unusual things, and they are not affected by the surroundings easily.

#### (4) Perceived risk and online agricultural product purchase intension

The affect of perceived risk on the consumers' online agricultural product purchase intension is not significant. Nowadays, with the development of technology and the improvement of standardization of e-commerce, the risks of online shopping become weaker and weaker, and the consumers' awareness and ability to resist risk are increasing. Therefore, the consumers won't be affected by perceived risks when they purchase agricultural products online.

#### (5) Facilitating conditions and the online agricultural product purchase behavior

During the process of online agricultural products purchase, facilitating conditions positively affects the consumers' online agricultural products purchase behavior. It means that more facilitating conditions provide convenience for consumers' online agricultural products purchase, and consumers will tend to take an actual action on online agricultural products purchase. Because it is inevitable that people have some troubles in accepting and making use of a new things (such as online shopping of agricultural products), and enough facilitating condition will help people make use of it.

Facilitating conditions significantly affect women's online agricultural products purchase behavior. In China, most of women are responsible for housework, and they often purchase agricultural products. When there are facilitating conditions which help

them purchase agriculture products online, they will choose the way of online agricultural products online. Most of men seldom purchase agricultural products, so facilitating conditions do not affect them significantly.

Facilitating conditions positively and significantly affect consumers with high frequency of purchasing agricultural products online, because facilitating conditions provide much convenience and benefit for them to purchase agriculture products online.

Facilitating conditions positively and significantly affect the online agricultural products purchase behavior of consumers with low innovativeness. The main reason is that consumers with low innovativeness are not good at discovering and making use of new things, and only are there many facilitating conditions to provide convenience for them, will they make use of the new things.

#### (6) Consumer innovativeness and online agricultural product purchase intension

The affect of consumer innovativeness on the consumers' online agricultural product purchase intension is not significant. Usually, consumers' recognition and acceptance of new things are different, because their innovativeness is different. This study finds that consumer innovativeness doesn't affect the intention of consumers' online agricultural products purchase significantly.

#### (7) Online agricultural product purchase intension and online agricultural product purchase behavior

The affect of online agricultural product purchase intension on the consumers' online agricultural products purchase behavior is significant. When consumers have the intention to purchase agricultural products online, they will take an action.

#### **Suggestions**

It is necessary to clear which factors will affect the consumers' online agricultural products purchase. It can help enterprises set definite consumer object and make the best use of the situation to attract more and more consumers. It is meaningful to increase the power of positive factors and to eliminate the negative factors, because it will stimulate the consumers to purchase agricultural products online and promote the development of the e-commerce of agricultural products.

- (1) From the perspective of improving performance expectancy, the online providers should increase the categories of agricultural products to enable the consumers to buy what they want. In order to improve the efficiency of purchasing agricultural products online, the online provider should ensure the quality of agricultural products and improve the efficiency of distribution.
- (2) From the perspective of enhancing effort expectancy, the online provider should consider whether the trading system of agricultural products is easy-using or not. Simple and easy-using online shopping system will help consumers search what they want conveniently, quickly and correctly, so as to finish the online trading of agricultural products.
- (3) From the perspective of increasing facilitating conditions, the online providers should try their best to ensure the agricultural products are excellent in quality and reasonable in price. Meanwhile, they should improve and ensure the quality of service, such as online consulting, after-sale service.
- (4) From the perspective of satisfying different consumers, the online providers should provide diverse agricultural products and personalized service to meet the needs of consumers.

#### REFERENCE

[1] Y.H. Lee, et al.. (2015) 'Relating motivation to information and communication technology acceptance:

- Self-determination theory perspective', Computers in Human Behavior, Vol.51, No.10, PP.418-428.
- [2] Venkatesh Viswanath, Thong James Y. L, & Xin Xu. (2016) 'Unified Theory of Acceptance and Use of Technology: A Synthesis and the Road Ahead', *Journal of the Association for Information Systems*, Vol.17, No.5, PP. 328-376.
- [3] Viswanth Venkatesh, Michael G. Morris, & Gordon B. Davis. (2003) 'User Acceptance of Information Technology: Toward a Unified View', *MIS Quarterly*, Vol.27, No.3, PP.425-478.
- [4] Amaro Suzanne, Duarte Paulo, & Anatolia. (2016) 'Travellers' intention to purchase travel online: integrating trust and risk to the theory of planned behavior', *An International Journal of Tourism & Hospitality Research*, Vol.27, No.3, PP.389-400.
- [5] Agarwal, R & Prasad, J. (1998) 'A conceptual and operational definition of personal innovativeness in the domain of information technology', *Information Systems Research*, Vol.9, No.2, PP. 204-215.
- [6] Dabholkar, P. A. & Bagozzi, R. P. (2002) 'An attitudinal model of technology-based self-service: moderating effects of consumer traits and situational factors', *Journal of the Academy of Marketing Science*, Vol.30, No.3, PP.184-201.
- [7] Dowling GR & Staelin R. (1994) 'A model of Perceived risk and intended risk-and ling activity', *Journal of consumer research*, Vol.3, No.21, PP.119-134.
- [8] PavlouPA. (2003) 'Consumer acceptance of electronic commerce: integrating trust and risk with the technology acceptance model', *International journal of Electronic Commerce*, Vol. 7, No.3, PP.101-134.
- [9] Chuanlan Liu & Sandra Forsythe. (2011) 'Examining drivers of online purchase intensity: Moderating role of adoption duration in sustaining post-adoption online shopping', *Journal of Retailing and Consumer Services*, Vol.25, No.18, PP.103-107.

#### **APPENDIX**

This research was financially supported by the grants from Hubei Provincial Collaborative Innovation Centre of Agricultural E-Commerce (under Construction).