Association for Information Systems
AIS Electronic Library (AISeL)

WHICEB 2015 Proceedings | Wuhan International Conference on e-Business

Summer 6-19-2015

Research on E-commerce Online to Offline Behavior Mechanism in Agricultural Products

Jingwen Li
Hubei Provincial Collaborative Innovation Centre of Agricultural E-Commerce (under Construction), Wuhan Donghu University, Wuhan, 430212, China

Sheng Cao
Hubei Provincial Collaborative Innovation Centre of Agricultural E-Commerce (under Construction), Wuhan Donghu University, Wuhan, 430212, China, caosam@gmail.com

Research on E-commerce Online to Offline Behavior Mechanism in Agricultural Products

*Jingwen Li, Sheng Cao**

Hubei Provincial Collaborative Innovation Centre of Agricultural E-Commerce (under Construction), Wuhan Donghu University, Wuhan, 430212, China

Abstract: Currently, online and offline channel integration as a successful business model is used in many industries, this paper aims at providing an insight into the factors affecting online channel (online shop) and offline channels (entity shop) in the agricultural product industry. Drawn from the extant literature, a consumer online and offline behavior model including trust, system quality, information quality , environment quality and service quality, online and offline satisfaction ,customer loyalty were provides. Data were obtained from 228 customers in china during 2014. Based on the data obtained, SPSS19.0 software is used to analyze reliability test and validity, descriptive statistics, correlation analysis, and AMOS17.0 were employed to calculate the path coefficient, and tests the proposed model. Data analysis shows that: The model describes the relationship among the online satisfaction, offline satisfaction and customer loyalty, and establishes a multi-relationship model that includes trust, system quality, information quality, environment quality and service quality. The factors impacting online satisfaction include trust, system quality and information quality; the factors impacting offline satisfaction include environment satisfaction and service quality. Meanwhile, we highlight the role of trust in online satisfaction, and prove that both online satisfaction and offline satisfaction have interaction on customer loyalty.

Keywords: Online satisfaction; Offline satisfaction; Trust; Customer loyalty; Agricultural e-commerce

1. INTRODUCTION

With a continuous development of the Internet of Things, Mobile Internet, Cloud Computing and big data technology, O2O pattern in Chinese agricultural market has a huge potential and an extensive market space providing that each individual can get what he need by interactions [1]. Clients can directly order from websites and have a real experience on physical grounds [2]. However, some problems are raised because of agricultural regionalism, seasonality, low level of standardization, dispersion of producers. For example, same products have different qualities and safety of on-line payment is threatened by dangers. Therefore, customers is lingering before the crossroad between buying from on-line and buying from real stores.

Nowadays, O2O pattern has been regarded as new ocean by Chinese agricultural products. Chu Orange, Liu Peach, Pan Apple, Ren millet have tried various O2O patterns on websites. When agricultural products apply traditional e-commerce, it also pays attention to experiences in real world that is an experiential consumption with various models and standards which is believed as a new consumption model. Under the background of product homogenization and brands popularization, services become very important during industry competitions. Therefore, O2O has become key point for transformation of traditional agriculture, because it is heavily influenced by the rapid development of e-commerce [3]. Basing on Three Dimensional Behaviors Theory, Information System Success theory and theory of Consumer's Behavior and started from customers' satisfaction degree for buying from on-line and real stores, this article firstly mentions a conceptual model and a theoretical assumption and designs scales for them [4]. At last, it analyzes samples and data acquired form scales. Because of increasing development of internet and mobile e-commerce with various and distinct demands of customers, it is

* Corresponding author: Email: caosam@gmail.com (Sheng Cao)

very significant to encourage clients' on-line and off-line behaviors for further development of traditional agriculture.

The following section introduces the concepts of interest in this study and puts forward our hypotheses. We begin with the specifics of agriculture industry. Then, we discuss the possible moderating effects of online and offline satisfaction. The subsequent methodology section lays down the sample, research setting, and the measurement of our constructs. Finally, we present our results and end with a discussion of the managerial and academic implication of our study.

2. CONCEPTUAL BACKGROUND AND HYPOTHESES

O2O mode, namely online to offline mode, can greatly satisfy the individualized and experiential demand of consumers. Under this mode, consumers firstly screen products online, then experience and compare the products offline, and finally effect payment offline [5]. B2C, B2B, C2C, and O2O are all based on the Internet technology, but O2O is different. The former three modes mainly adopt online payment, while O2O features offline experience and payment. In the meantime, O2O is a mode adopted by online shopping malls and it is also different from the group-buying mode characteristic of high discounts and temporary sales promotion. Based on the advantages of O2O, the farm produce industry has been constantly deepening the exploration into the O2O mode.

In earlier research, on the one hand, many scholars proposed and proved that the perceived usefulness and perceived usability of technology acceptance model have a great influence on the adoption of technology in the online marketing channels of the farm produce industry [7]. In the literatures of psychology and marketing, however, some scholars argued that it is not enough to use the two dimensions of usefulness and usability to explain the online purchase intention and behavior of farm produce consumers. For this reason, they added some new variables such as perceived risk, website reliability/security from the standpoint of consumers [8], and further materialized perceived usefulness and perceived usability and used system quality and information quality to measure the attitude of online consumers [9]. It is discovered by reading and analyzing relevant literatures that confidence plays a positive role in successful online transaction of the clothing industry. Online confidence is a problem that must be considered for online shopping in the farm produce industry [10]. Because of the risk of online shopping, both confidence and risk play an important role in online transaction [11]. The building process of online confidence of farm produce consumers is different from that of offline confidence. In the virtual cyber world, consumers only face a two-dimensional or three-dimensional graphical interface when they buy farm produce. They cannot have direct contact with or observe real commodities but browse pictures and detailed information. In the farm produce industry, consumer confidence plays an important role in online purchase, online auction and the disclosure of personal information [12] [13]. Although the current network security development is conducive to strengthening the confidence of online retailers of farm produce, some consumers still feel uneasy when providing sensitive information to online retailers. If consumers feel unsafe, they will suspend their interactive activities even when they look for information [14]. It is advisable to consider incorporating confidence as a factor into the model of this research. At the same time, the system quality and service quality will greatly influence the online satisfaction of consumers in the clothing industry, thus further influencing the loyalty and behavior of online consumers [15]. On the other hand, the agricultural service quality and environmental quality will greatly influence the offline satisfaction of consumers.

Based on the literature review and the understanding of online and offline satisfaction in the farm produce industry, this research puts forward the following model, which is as shown in Figure 1. Consumer loyalty is influenced by satisfaction, while satisfaction has an interaction effect on customer loyalty. Satisfaction includes online satisfaction and offline satisfaction. The influencing factors of online satisfaction mainly include

confidence, system quality and information quality, while those of offline satisfaction mainly include environmental quality and service quality.

2.1. Trust, system quality, information quality and online satisfaction

（1）Trust and online satisfaction. Black（2005）discovers that economic factors, geographic factors, trust, responses and the attitudes of usage have influences on the behavioral intentions and the willing of purchasing products online of consumers[17]. In the process of purchasing commodities online, when the financial information and individual data of consumers is shared, online trust is needed [18]. Online trust is based on risk perception and the benefits of online trade [19]. One of main reasons why consumers choose to purchase clothing offline is because of the lack of trust on the website, since online trade exists opportunism, anonymity, lack of control and other risks. In the process of purchasing clothing online, the time and location of the both parties of buyers and sellers are separated. After consumers pay, it usually needs to wait for a very long time to receive the clothing ordered online. Therefore, in the process of online trade, consumers are at the weak status. They need to take measures to reduce the uncertainty and risk in the transaction. When lacking online transaction rules and systems, they will use trust to maintain the trade relations. Therefore, in the course of establishing the trust of consumers in agricultural product industry, website develops very important function. Besides, Koufaris M and Hampton-Sosa W believe that the experience of new customers on enterprises and websites and their trust tendency commonly decide the trust of customers on the enterprises [20]. In this research, the measurement of trust mainly studies on the three aspects of the dependability of clothing industrial websites, the protection on individual privacy and the security of websites. At the same time, large quantities of research demonstrate that the higher the trust of consumers is, the greater the willing of consumers to purchase online will be. Therefore, we have proposed the following assumptions:

H1a：Trust has significant positive effects on online satisfaction.

（2）System quality, information quality and online satisfaction. In the agricultural product industry, website usability is always worrying for customers. For example, the failed navigation will cause difficulty for consumers to interview regularly [21]. In order to enhance the usability of the website, clothing enterprises should position their target customers and design the website that can be used easily by customers. This research defines satisfaction as a ratio of the expected value of consumers on service results to the actual value. System quality is the measurement on the functional characteristics of clothing websites, mainly including the dependability, response ability, flexibility and usability of the website. The convenience of purchasing agricultural products online involves a series of process related to consumer’s online purchases, or the agricultural product information collection process before online shopping, the agricultural product transaction process of online shopping and the agricultural product service process after online shopping. This course involve the operability of agricultural product website interface design, the friendliness of website interface design, the diversity of online payment method, the convenience of online payment program, the immediacy of online logistics, and the timeliness and completeness of after-sale service, etc. The convenience of purchasing agricultural products online equips with positive effects on online satisfaction. The dependability of online agricultural websites includes the security of the consumer’s personal information, the safety of consumer’s payment process and etc. The dependability of online agricultural product websites and the consumer’s online satisfaction, or the more dependable the information provided by agricultural product websites is, the more satisfied the online consumers will be. The real usability of the related information of online agricultural products include the authenticity of online agricultural product information, the authenticity of online forum information, the transparency of online product price information, the credibility of credit comments by online product agents, etc. In a word, the real usability of online product information can affect the online satisfaction of agricultural consumers positively. So we have put forward the below assumptions:

H1b: System quality is positive related with online satisfaction

H1c : Information quality is positive related with online satisfaction

2.2 Environment quality, service quality and offline satisfaction

Domestic and foreign scholars have analyzed the measures of agricultural product industrial service quality from different angles. Florus believes that service quality includes functional quality and technical quality. In his views, in the course that consumers are enjoying the service, the quality perception of customers on the service provided by service providers not only includes the service result acquired by consumers, but also involves the the offering means, method and attitude of service providers. Gummersson expresses that service quality includes production quality, design quality, output quality and process quality [22]. Edvardsson states that service quality can be divided into four categories: integration quality, function quality, technology quality and output quality [23].

Olsen（2002）divides service quality into three great types of production quality, design quality and process quality. While studying on the relationship between the service quality of clothing industry and offline satisfaction, numerous scholars believe that satisfaction comes from the service process conveyed by service providers, and service quality is the prioritized factor influencing the behaviors of consumers in this conveying course [24]. The service quality of clothing industry is closely related to offline satisfaction of consumers [25]. The classification of offline quality in agricultural product industry should include two aspects: environment quality, representing a kind of perception by consumers on the tangible service provided by servers[26]； service quality, refers to the perception of consumers on the expected level of service[27]. Some research demonstrates that offline quality has positive effects on offline satisfaction [28]. So we have raised the assumptions as below.

H2a: Environment quality is positively related to the offline satisfaction

H2b: Service quality is positively related to the offline satisfaction\

2.3 Customer satisfaction and loyalty

Oliver（1999）defines satisfaction. It refers to a kind of emotional reaction on the uncertainty of expectation. It relates to emotional assessment. He proposes the “inconsistent expectation”theory. This theory lays the solid theoretical basis for the research of satisfaction. If the practicality of the product exceeds the expectation of consumers, consumers will be satisfied, or consumers will be unsatisfied. The actual performance of the product here not only affects the satisfaction of customers when comparing to the expectation value, and the product itself also influences the customer satisfaction [29]. Fournier and Mick（1999）are in position that satisfaction should involve two aspects of emotion and conation. As a result, the satisfied feeling refers to a kind of emotional status in mind [30].

The realistic performance of agricultural products influences the satisfaction of customers. In the next, some scholars point out that satisfaction includes emotional factors, which is not just a cognition process [31]. Some other research state that satisfaction is one determining factor of customer loyalty [32][33]. This association acquires the consistent support from two aspects of online and offline. This research applies customer loyalty as the intention of identifying the future, because loyalty can be regarded as the purchasing willing of customers for the future products and service [34]. In the effect theory of consumer’s loyalty, Oliver（1980）believes that the satisfaction and trust of consumers can influence the loyalty of customers positively[35].Therefore, we have proposed the following assumptions:

H3: Online satisfaction and offline satisfaction equips with interactive functions on customer loyalty.

H4: Online satisfaction has significant positive effects on the loyalty of customers.

H5: Online satisfaction has significant positive effects on the loyalty of customers.

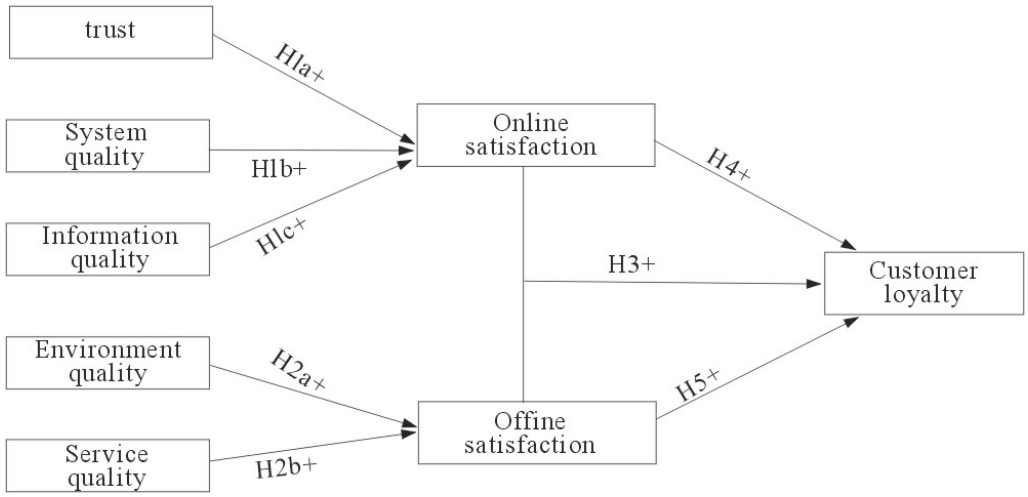

Fig 1. Summarizes the proposed research model

3. RESEARCH SETTING AND SAMPLE

We tested our hypotheses as part of a study in a quasi-experiment in the controlled setting of a single online shop. To examine the proposed model, an empirical investigation of customers in China was conducted during 2014, the sampling frame consists of all enterprises operating in one type of customers: experienced online purchases, the authors select these customers because the research object of this article is the online behavior of customers in agricultural industry , depending heavily on 020 e-commerce ,the technology is moving ahead quickly, and online and offline behaviors has been and continues to be a significant feature in these industries. Before actually administering the survey, a preliminary version of the survey instrument was pretested among a group of five executives of enterprises and three specialists in the disciplinary fields of this research(e-commerce and information system), namely two industrial psychologists, along with one e-commerce specialist. This group made recommendations to improve the questionnaire and establish the questionnaire valid on the face of it. The final questionnaires was sent via an Email to a total of 1000 members of students, workers or civil servants, which was equivalent to the number of employees in the participant organizations, 267were taken in and 228 had usable data. Therefore, we have a satisfactory response rate (22.8percent).

3.1 Data collection

The sample was predominantly by female (62.28percent).Participants ages averaged at 20-30, with a range of 20-52.Additionally, a higher percentage of participants (34.3 percent)had been employed in organization ranged from 3 to 5 years.

Table 1. The basic statistics sample

Variable	Items	N	Percents（%）
sex	Male	86	37.72%
	female	142	62.28%
age	<=20	4	1.75%
	20-30	128	56.14%
	31-40	88	38.60%
	>=40	8	3.51%

3.2 Measures

In this research, we used eight measurement scales, which were extensively tested and validated in prior studies published in the literature. In order to understanding the different variables of the article, we made definitions as shown in table 2.

Table 2. The Definition of Variables

Variable	Definition	Source
Trust	Trustworthiness of online The protection of personal privacy The security of online	Gefen et al,2003; Wu and Chang,2005; Ridings et al,2002; Stewart,2003; Feng et al,2004;Ziegler and Golbeck, 2007 Koh and Kim, 2004; Lu and Zhou, 2007
System quality	The reliability of the website, website responsiveness, flexibility, site usability	Devaraj et al, 2002; DeLone and McLean, 2003; Chen and Cheng, 2009
Information quality	The integrity of information, the reliability of the information, the accuracy of information, timeliness of information	Doll et a,1994; DeLone and McLean, 2003; Wixom and Todd ,2005
Environment quality	Offline shopping distance, offline shopping time, offline shopping traffic environment, the offline shopping weather, shopping environment of the store	Dabholkar et al, 1996; Brady and Cronin, 2001; Caruana, 2002; Wong ,2004; Fullerton,2005
Service quality	Provide service and consistent commitment, communicate with service personnel, service personnel to provide other services	Parasuraman et al, 1994; Brady and Cronin,2001; Ahn et al,2004;
Online satisfaction	The website achievements, website interaction and attitude of the web site	Fournier and Mick ,1999; Oliver,1999; Anderson and Srinivasan ,2003; Castañeda Joe ,2009; Chiu,2009
Offline satisfaction	Services provided by the entity shop; Compared with expectations, satisfied with the service stores offer, like physical stores to provide services	Anderson and Srinivasan,2003; Wong,2004;Ribbink et al, 2004; Choi et al,2004
Customer loyalty	Continue to browse online store, visit the online store again, recommend this shop to others	Jones and Sasser, 1995; Lin and Sun,2009

There are eight variables in this study including trust, system quality, information quality, environment quality, service quality, online and offline satisfaction, loyalty of customer. Trust, system quality and information quality are the factors influence the online satisfaction, and the service quality and environment quality are the factors influence the offline satisfaction, online satisfaction and offline satisfaction have influence to customer loyalty.

4. ANALYSIS AND RESULTS

4.1 Model and analysis

The means, standard deviations, correlations, and average variance extracted(AVE) for eight scales are presented in Table Ⅱ. The reliability of the measurements is evaluated using Cronbach's alpha and the composite reliability scores. As table shows, The AVE is the average squared loading of the items that constitute a construct, an AVE which is greater than 0.5 indicates satisfactory convergent validity(Chin,1998),as shown in table Ⅱ. All average variance extracted(AVE) values are above 0.50, and the square root of AVE values are

greater than the off-diagonal correlations, indicating adequate convergent and discriminate validity(Fornell and Larcker,1981).Table Ⅱ reports internal consistency values for the constructs using the internal consistency formula. The internal consistency scores over 0.7 indicate the adequate reliability. All values are below the multicollinearity cut off value (0.80), which indicates that constructs are interdependent but not multicollinear.

Table 3. Descriptive statistics and correlations

Variable	Mean	SD	α	AVE	1	2	3	4	5	6	7	8
TR	3.06	0.467	0.710	0.548	0.74							
SQ	3.57	0.397	0.761	0.595	0.353**	0.77						
IQ	3.20	0.368	0.773	0.578	0.479**	0.560**	0.76					
EQ	3.57	0.492	0.822	0.679	0.096**	0.143*	0.069	0.82				
SEQ	3.52	0.369	0.672	0.580	0.219**	0.481**	0.334**	0.304**	0.76			
OS	3.34	0.344	0.782	0.702	0.496**	0.524**	0.549**	0.014	0.383**	0.84		
OFS	3.19	0.364	0.774	0.558	0.015	0.263**	0.230**	0.308**	0.394**	0.152*	0.75	
CL	3.90	0.369	0.855	0.668	0.402**	0.502**	0.372**	0.193**	0.360**	0.330**	0.142	0.82

Notes: *p<0.05, **p<0.01,TR=trust, SQ=system quality, IQ=information quality, EQ=environment quality, SEQ=service quality, OS=online satisfaction, OFS=offline satisfaction, CL=Customer loyalty

4.2 Regression analysis of online and offline satisfactions on customer loyalty

This study utilizes regression analysis to verity the interaction effects between online and offline satisfactions to the customer loyalty. The intermediate variables of research framework in this part are online and offline satisfactions, and the consequent is customer loyalty, in order to examine the influence of main effects variable and interaction variables, a two step regression analysis is run: (1)the main effects were introduced, (2)the interaction effects of online and offline satisfactions were tested. Results are reported in table 4.

Table 4. The interaction of online and offline satisfaction

Variables	β	p
constant		0.000
Online satisfaction	0.445	0.000
Offline satisfaction	0.432	0.013
Online satisfaction	0.312	0.027
*offline satisfaction		

As shown in table 4, H4, which predicted that online satisfaction would relate positively to customer loyalty, is supported(β=0.445,p<0.000). H5, which asserted that offline satisfaction would be positive to customer loyalty, is supported too(β=0.432,p<0.05). As predicted by H3, Which stated that online satisfaction and offline satisfaction have interaction effects to customer loyalty, is supported (β=0.312,p<0.05), predicting that online satisfaction and offline satisfaction would strengthen the effects to customer loyalty.

4.3 Structural equation model

AMOS17.0 were employed to calculate the path coefficient, and tests the proposed model .According to the adjusted model, it is concluded that the path coefficient between variables, specific values are shown in table 5 below.

Table 5. Summary of the hypothesis tests

Hypothesis			β	p	Supported
H1	H1a	Trust→ online satisfaction	0.57	0.006***	Yes
	H1b	System quality→ online satisfaction	0.66	0.004***	Yes
	H1c	Information quality →online satisfaction	0.42	0.019**	Yes
H2	H2a	Environment quality→ offline satisfaction	0.35	0.037**	Yes
	H2b	Service quality→ offline satisfaction	0.54	0.008***	Yes
H4		online satisfaction→ customer loyalty	0.55	0.004***	Yes
H5		offline satisfaction→ customer loyalty	0.39	0.022**	Yes

Notes: *p<0.05, **p<0.01

As path coefficient values shown in table 5:

- H1a,H1b, H1c,which stated that trust ,information quality, service quality would be positive to online satisfaction， were supported(βa=0.57, βb=0.66,βc=0.42,p<0.05)
- H2a, predicting that information quality is positively related to offline satisfaction, is supported (β=0.35, p<0.01).H2b, which asserted that service quality is positively related to offline satisfaction, is supported (β=0.54,p<0.01).
- H4, predicting that online satisfaction is positively related to customer loyalty, is supported (β=0.55, p<0.01). H5, which stated that offline satisfaction is supported (β=0.39, p<0.05).

5. CONCLUSIONS

Based on the theory of three element and IS success model ,and combine with the e-commerce researches, this study constructed the customer online and offline behavior model in the agricultural industry, and summarized the key factors that effects the online and offline satisfaction of customers through the 228 data. Specific research conclusions are as follows:

First of all, in the farm products industry, trust, system quality and information quality are the key factors influence the online consumer satisfaction. The data of this study confirmed that the trust, system quality and information quality have positive effect to the customer's online satisfaction, further, also confirmed the three factors is positive influence online customer satisfaction.

Secondly, service quality and environmental quality of agricultural products affect consumer satisfaction of offline store. Such as service quality, service and commitment to consistent, communicate with service personnel, service personnel to provide other services and so on, these will directly affect the customer offline satisfaction; at the same time ,too far from the shopping district, spend more time shopping , traffic environment of offline shopping, the weather, shopping stores environment (decoration, lighting, background music, etc.) these environmental quality also affects the consumer offline satisfaction.

Thirdly, customer satisfaction with online and offline satisfaction will be positively influence customer loyalty, this conclusion is also proved the view of Anderson and Srinivasan [34], these scholars believe that the online satisfaction has a positive correlation with loyalty. At the same time, online and offline satisfaction has interaction to customer loyalty, both together promoted the development of customer loyalty.

In conclusion, with the development of information technology of big data, payment platform of continuous development and improvement and introduce some communication tools such as WeiXin ,LBS makes O2O model can be widely used in all kinds of life, including agriculture, because of the particularity of industry (experiential consumption) determines the agricultural O2O mode general improves continuously with perfect in practice. On the one hand, we should pay more attention to the mobile agricultural products O2O mode based on LBS; At the same time we cannot ignore the offline resources integration platform. Because of

the online platform, the offline platform and the consumer is to operate in the way of a circulation system, if missing online or offline platform, will make the O2O model cannot run normally, so both elements have to be present,

6. ACKNOWLEDGEMENT

This paper was supported by the grants from Hubei Provincial Collaborative Innovation Centre of Agricultural E-Commerce (under Construction) (Wuhan Donghu University research [2014] 4)-"the innovation research on the profit mode of agricultural from the perspective of e-commerce".

REFERENCES

[1] Wang C, Harris J, Patterson P G(2012). Customer choice of self-service technology: the roles of situational influences and past experience[J]. Journal of Service Management, 23(1): 54-78.

[2] Chintagunta P K, Chu J, Cebollada J(2012). Quantifying transaction costs in online/off-line grocery channel choice[J]. Marketing Science, 31(1): 96-114.

[3] Oppewal H, Tojib D R, Louvieris P(2013). Experimental analysis of consumer channel-mix use. Journal of Business Research, 66(11): 2226-2233.

[4] Delone W H, Mclean E R(2004). Measuring e-commerce success: Applying the DeLone & McLean information systems success model. International Journal of Electronic Commerce, 9(1): 31-47.

[5] Chocarro R, Cortiñas M, Villanueva M L(2013). Situational variables in online versus offline channel choice. Electronic Commerce Research and Applications, 12(5): 347-361.

[6] Chau P Y K, Hu P J H, Lee B L P, et al(2007). Examining customers' trust in online vendors and their dropout decisions: an empirical study. Electronic Commerce Research and Applications, 6(2): 171-182.

[7] Hess T J, McNab A L, Basoglu K A(2014). Reliability generalization of perceived ease of use, perceived usefulness, and behavioral intentions. MIS Quarterly, 38(1):1-58.

[8] Huang C E, Chen P K, Chen C C(2014). A study on the correlation between the customers' perceived risks and online shopping tendencies. Advanced in Computer Science and its Applications. Springer Berlin Heidelberg: 1265-1271.

[9] Subramanian N, Gunasekaran A, Yu J, et al(2014). Customer satisfaction and competitiveness in the Chinese e-retailing: Structural Equation Modeling (SEM) approach to identify the role of quality factors. Expert Systems with Applications, 41(1): 69-80.

[10] Jarvenpaa S L, Tractinsky N, Saarinen L(1999). Consumer trust in an Internet store: A cross-cultural validation. Journal of Computer-Mediated Communication, 5(2): 1-35.

[11] McCole P, Palmer A(2001). A critical evaluation of the role of trust in direct marketing over the internet//World Marketing Congress.

[12] Pavlou P A(2003). Consumer acceptance of electronic commerce: integrating trust and risk with the technology acceptance model. International Journal of Electronic Commerce, 7(3): 101-134.

[13]Chau P Y K, Hu P J H, Lee B L P, et al(2007). Examining customers' trust in online vendors and their dropout decisions: an empirical study. Electronic Commerce Research and Applications, 6(2): 171-182.

[14]Kim G, Shin B S, Lee H G(2009). Understanding dynamics between initial trust and usage intentions of mobile banking. Information Systems Journal, 19(3): 283-311.

[15] Beldad A, De Jong M, Steehouder M(2010). How shall I trust the faceless and the intangible? A literature review on the antecedents of online trust. Computers in Human Behavior, 26(5): 857-869.

[16] Demirci Orel F, Kara A(2014). Supermarket self-checkout service quality, customer satisfaction, and loyalty: Empirical evidence from an emerging market. Journal of Retailing and Consumer Services, 21(2): 118-129.

[17] Zhou Q, Fu G(2014). Developments on Informatization Technology in Agricultural Operations in China[M]//Computer and Computing Technologies in Agriculture VII. Springer Berlin Heidelberg: 10-15.

[18] Black G S(2005). Predictors of consumer trust: likelihood to pay online. Marketing Intelligence & Planning, 23(7): 648-658.

[19] Eggert A(2006). Intangibility and perceived risk in online environments. Journal of Marketing Management, 22(5-6): 553-572.

[20] Teo T S H, Liu J(2007). Consumer trust in e-commerce in the United States, Singapore and China. Omega, 35(1): 22-38.

[21] Koufaris M, Hampton-Sosa W(2004). The development of initial trust in an online company by new customers. Information & Management, 41(3): 377-397.

[22] Nathan R J, Yeow P H P, Murugesan S(2008). Key usability factors of service-oriented web sites for students: an empirical study. Online Information Review, 32(3): 302-324.

[23] Chase R B, Bowen B D(1991). Service Quality and the Service Delivery System. Service Quality: Multi-Disciplinary and Multi-National Perspectives.

[24] Edvardsson B(1997). Quality in new service development: key concepts and a frame of reference. International Journal of Production Economics, 52(1): 31-46.

[25] Olsen S O(2002). Comparative evaluation and the relationship between quality, satisfaction, and repurchase loyalty. Journal of the Academy of Marketing Science, 30(3): 240-249.

[26] Meuter M L, Ostrom A L, Roundtree R I, et al(2000). Self-service technologies: understanding customer satisfaction with technology-based service encounters. Journal of Marketing, 64(3): 50-64.

[27] Westbrook R A(1981). Sources of consumer satisfaction with retail outlets. Journal of Retailing, 57(3): 68-85.

[28] Brady M K, Cronin Jr J J(2001). Some new thoughts on conceptualizing perceived service quality: a hierarchical approach. Journal of Marketing, 65(3): 34-49.

[29] Fullerton G(2005). The service quality-loyalty relationship in retail services: does commitment matter?. Journal of Retailing and Consumer Services, 12(2): 99-111.

[30] Ahn T, Ryu S, Han I(2007). The impact of Web quality and playfulness on user acceptance of online retailing. Information & Management, 44(3): 263-275.

[31] Caruana A(2002). Service loyalty: the effects of service quality and the mediating role of customer satisfaction. European Journal of Marketing, 36(7/8): 811-828.

[32] Wong A(2004). The role of emotional satisfaction in service encounters. Managing Service Quality, 14(5): 365-376.

[33] McAlexander J H, Kim S K, Roberts S D(2003). Loyalty: The influences of satisfaction and brand community integration. Journal of Marketing Theory and Practice: 1-11.

[34] Srinivasan S S, Anderson R, Ponnavolu K. Customer loyalty in e-commerce: an exploration of its antecedents and consequences[J]. Journal of Retailing, 2002, 78(1): 41-50.

[35] Yu P, Zhao D(2014). Effect of Website Quality Factors on the Success of Agricultural Products B2C E-commerce.Computer and Computing Technologies in Agriculture VII. Springer Berlin Heidelberg: 98-113.

[36] Castañeda J A, Frías D M, Rodríguez M A(2009). Antecedents of internet acceptance and use as an information source by tourists. Online Information Review, 33(3): 548-567.

[37] Joe S W, Chiu C K(2009). Proposing online game loyalty and its antecedents considering gender as a moderator: a qualitative study. Quality & Quantity, 43(5): 731-741.

[38] Anderson R E, Srinivasan S S(2003). E-satisfaction and e-loyalty: A contingency framework. Psychology & marketing, 20(2): 123-138.

[39] Lin G T R, Sun C C(2009). Factors influencing satisfaction and loyalty in online shopping: an integrated model. Online Information Review, 33(3): 458-475.