Study of Consumer Online Repurchase Behaviors

Li-Shan Chen

Associate professor, Business School, Lingnan Normal University, Lingnan Normal University, No.29 Cunjin Rd., Chikan Qu, Zhanjiang, Guangdong Province, P. R. China.

Abstract: *The e-commerce market in China is changing rapidly, and new generations of consumers are rising. Companies urgently need to update their consumer data. This study attempts to establish a model to predict what affects consumer repurchase behavior. By using PLS to analyze 500 questionnaires, we conclude the following statements: First, online reviews and online advertising have a significant impact on consumer repurchase. Second, there is no relationship between their own experience and their purchase decisions. Third, satisfaction positively influences the consumers repurchase behavior.*
Keywords: *repurchase; expectation confirmation; satisfaction; online shopping; e-commerce*

I.   Introduction

According to data from CNNIC (China Internet Network Information Center), the sales volume of China's online shopping market reached 7.18 trillion CNY in 2017, with an increase of 32.2% over the previous year. Among categories, the online retail sales of physical goods was 5.4806 trillion CNY, increasing 28.0% compared to the previous year. It accounts for the proportion of 15.0% of the total retail sales of consumer goods, increasing 2.4 percentage over the previous year [1]. China ranks as the world's largest and most energetic e-commerce market. In 2017, total e-commerce transactions in China reached 29.2 trillion CNY, an increase of 11.7% year-on-year, with both B2C sales and online shopping consumers ranking first in the world. Researches show that online shopping behaviors in China are becoming more frequent, more diversified, and like the new better than the old. When China's e-commerce market has grown to the "Red Sea", it is necessary to study the psychology of consumers and to improve the business strategy of e-commerce companies based on consumer preferences in order to win customers and make profits.

II.   Literature Review

A.   Online Reviews

Hennig-Thurau et al. (2004) believe that online commentary is to consume or use the Internet to publish their own subjective information about products and sellers [2]. Park and Lee (2008) believe that online reviews are positive or negative evaluations made by consumers after they purchase goods [3]. Chen and Xie (2008) argue that online reviews refer to the positive or negative views of consumers make on the web about products and services [4]. Mudambi and Schuff (2010) believe that online reviews are opinions on products and services published by consumers on retailer websites or third-party Internet platforms [5]. Du Xuemei (2013) believes that the quantity, quality, and potency of online reviews are significantly related to consumers' purchase intentions [6]. Li Yanfei (2016) believes that online reviews are positive or negative opinions on products and services published by consumers after shopping in the online market [7].

B.   Personal Experience

The consumer's own experiences are the shopping experiences accumulated by consumers in the online shopping process. Zhang Yunlai (2014) believes that consumers' online shopping experience will increase consumers' information consulting ability and influence consumers' subsequent purchase behaviors [8]. Wu Wei (2015) introduced the technology acceptance model and concluded after studying 215 data, that the consumer's mobile shopping experiences will affect the usefulness and ease of use of the consumer's mobile shopping [9].

C.   Online Promotion

The online shopping market has a wide range of products and consumers are free to choose. Since consumers have multiple choices, in order to win consumers, we first need to attract consumers and inform them about our products and services. The so-called online promotion uses online shopping platforms and social platforms to convey information about our own products and services to consumers through video advertisements, pictures, and texts. Wei Xinsheng (2002) concluded that advertising campaigns have a very

positive effect on consumers' purchase of tourism products through analysis of tourism products [10]. Jin Dinghai (2008) believes that the wide application of digital technology and the rise of new online media have made information dissemination extremely convenient [11]. Song Ruotao (2014) believes that the development of modern information technology, acceleration of information dissemination, and interactive delivery methods can attract consumers [12]. Li Yansong (2015) believes that the rise of social media leads to online advertising with features of accuracy, wide contact, and good results [13].

D.   User Expectation

Expectation, according to its definition, means that before the incident has occurred, users will make predictions based on their past experience and their own preferences. Oliver (1980) believes that the expectation is the prediction of the likelihood of events that consumers make based on previous experience [14]. The study of Boulding and Kalra et al. (1993) mentioned predictive expectations and normative expectations. Forecast expectations represent events that predict the future. For example, before online shopping, we would expect the seller to provide quality goods and good services. Normative expectations are ideal expectations, such as sellers can provide free shipping [15]. In 2000, the definition of expectation in the ISO 9000 standard was stated as the hope that the customers place on the goods or service to be purchased during the purchasing decision-making process and the pre-purchase period [16]. Bi Xinhua (2011) believes that the degree of consumer's expectation of recognition influences perception and that perception affects satisfaction [17].

E.   Satisfaction

Cronin & Tayolr (1992) stated that customer satisfaction is a major factor affecting consumer repurchase rates [18]. Kotler (1998) believes that satisfaction is a state of subjective perception of the customer's perceived disappointment or pleasure with regard to the perception of the product or service [19]. Magnus and Niclas (2003) pointed out that there is a positive correlation between customer satisfaction and word-of-mouth communication intention. The higher the satisfaction is, the stronger the customer's willingness to communicate will be. The lower the satisfaction, the lower the customer's willingness to communicate is [20]. Wu Xiaoming and Hao Liaogang (2009) found that the higher the customer's satisfaction, the stronger the repurchase intention will be [21]. Zhu Yanchun et al. (2015) believe that customer satisfaction positively influences consumer purchasing behaviors [22].

Model and Hypothesis
A.   Model
This article integrates the previous research results, and summarizes the model as Figure 1 shows, that online reviews, consumers' own experience, online promotion affect consumer expectations, and that consumers' expectations will influence consumers' purchasing decisions and consumer satisfaction after online shopping can further promote consumer repurchase behaviors.
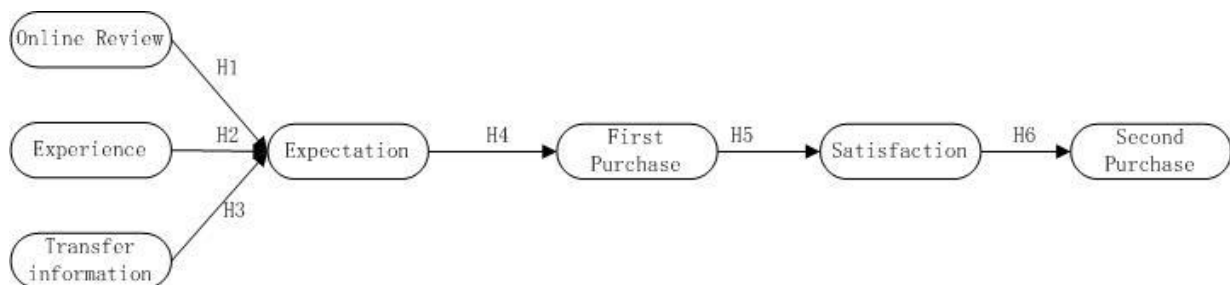

Figure 1. Model of Repurchase Behavior Factors

B.   Hypothesis
1.   Expectation influences the consumers purchase decisions
Su Mingtao (2011) believes that the evaluation of relevant groups influences the purchase behaviors of consumers, and the positive comments of related groups have less impact on consumers, but the negative post-purchase reviews of related groups have a larger impact [23]. Zhao Dong (2012) found that the number and credibility of online reviews positively influence consumer purchasing decisions [24]. Li Yanfei (2016) believes that the information that customers brought about the merchant through online commenting system can help consumers make purchases [25]. The uncertainty of the online shopping market and the development of the

Internet make information search easier, and the value of online reviews becomes more prominent. Therefore, this paper proposes H1.

H1: Online reviews influence the expectation of consumers.

An online shopping experience makes consumers familiar with the shopping process and gain the ability to search for information. Consumers' experience in online shopping will reduce their time cost and make them more familiar with the basic information of online shopping. Therefore, this article proposes H2.

H2: Personal experiences influence pre-purchase expectation of consumers.

Howard and Sheth (1974) found that advertising messages are external stimuli. Consumers are interested in receiving such external stimuli and actively search for information [26]. Zhu Weilin (2012) proposes that when consumers watch advertisements, they will have memories of products and brands, thus affecting consumers' purchase intentions [27]. Liu Nian-nian (2016) obtained empirical evidence that online advertising influences consumer purchasing decisions [28]. Sun Tingting (2018) proposed that e-commerce companies' use of big data for accurate information campaigns can stimulate consumers to purchase more than traditional marketing methods [29]. Huang Jiaqing and Ma Yi (2018) think that the website's promotion activities and website information push positively influence consumers' purchase intention [30]. External stimuli provoked consumers' desire to shop. Advertising is undoubtedly a good tool for stimulating consumers when they do not yet have a desire to buy, and motivating them to make purchases. Therefore, this paper proposes hypothesis H3.

H3: Online promotion positively influences the expectation of consumers' online shopping.

Consumers will generate preconceived guesses about sellers and goods before they shop online. If you buy clothes in the online shopping market, consumers can only imagine clothes on themselves. If consumers have a high expectation of this product, they may start buying. Oliver (2014) believes that the body usually has an expectation before the decision, it will affect the people's evaluation of the value of the decision made, and even influence the future purchase behavior. Therefore, it is expected to have large influence on the purchase decision of consumers [31]. Zhao Baoguo and Cheng Yinghui (2013) believe that hard-work expectations and product characteristics positively influence purchase intentions through performance expectations [32]. Li Yuping (2015) believes that based on previous purchasing experience or combining with their own preferences, the customer will have a sense of expectation of the product, which also affects customer satisfaction [33]. Liu Zhenhua (2017) believes that increasing consumer expectations will enable consumers to continue to use mobile online shopping [34]. Therefore, this paper proposes hypothesis H4.

H4: Expectation positively influences the consumers purchase decisions.

2.   Post-purchase satisfaction affects consumers repurchase behaviors.
Consumers will have satisfaction and dissatisfaction whether they purchase goods in physical stores or in an online market. If the consumer purchases the same product as he expected, the consumer will be satisfied. Therefore, this article proposes hypothesis H5.

H5: Consumers achieve satisfaction after shopping once.

Park et al. (2010) conducted a related study of the company's continued willingness to use web analytics services, and found that customer satisfaction is the biggest influencing factor [35]. Juan Zhang (2013) proposed that customer satisfaction is a key factor in stimulating consumer repurchasing intentions [36]. Chen Rong et al. (2016) believe that satisfaction is positively affecting consumers' re-shopping intentions [37]. After consumers are satisfied with a purchase, they are more willing to buy again. Therefore, the hypothesis H6 is proposed in this paper.

H6: Satisfaction positively affects consumers repurchase behaviors.

C.   Questionnaire Design
This article uses a questionnaire survey to test the model hypothesis. In order to ensure the rationality of the questionnaire, all the options are summarized based on the previous research results, and the initial scale is formed after considering the new features of online shopping. Then, the initial questionnaire was reviewed using the expert opinion method, and the questionnaire was revised based on the opinions. Then, a number of students

were invited to participate in the questionnaire before the questionnaire, and the scale was refined based on the results of small sample analysis. Finally, a formal research questionnaire was formed after repeated refinement. In the measurement of the questionnaire, this study adopted the Likert 5-point scale design, with 1 representing "strongly disagree" and 5 representing "strongly agree".

Data Analysis

A.   Data Collection

This study is based on people who have experienced online shopping. The survey questionnaire involved people from Fujian, Shanxi, Taiwan, and Beijing, covering a wide range of fields, with large age spans, and multiple levels and all-round investigations. Questionnaires are given to college students, college teachers, and corporate staff. A total of 550 questionnaires were issued, 550 were collected, 275 of which were online questionnaires and 275 of which were offline questionnaires. Among them, 520 were valid questionnaires, and the effective rate was 94.55%. The problems of invalid questionnaires lie in: 1) the filling time is too short, only a few tens of seconds; 2) the answer data is incomplete and misses; 3) the answer appears to be inverted, that is, all choices are the same. This article uses Smart PLS for data analysis. The statistical population data is shown in Table 1.

Measure	Item	Frequency	Percentage
Gender	Meale	245	47.12%
	Female	275	52.88%
Age	18-25	295	56.73%
	26-35	89	17.11%
	36-45	52	10.00%
	46-55	41	7.88%
	55 Above	43	8.27%
Education	Master	53	10.19%
	Bachelor	403	77.50%
	High School	42	8.08%
	Junior High School	22	4.23%
Monthly Spend	¥1000	104	20.00%
	¥1000-¥2000	217	41.73%
	¥2000-¥3000	71	13.65%
	¥3000	128	24.62%

Table 1. Individual Questionnaire Statistics

B.   Analysis of Reliability and Validity of Samples

This article uses confirmatory factor analysis to test the reliability and validity of the sample. The results are shown in Table 2.

	Factor	Factor Loading	Composite Reliability	a	AVE
TV	TV1	0.72	0.882	0.8	0.716
	TV2	0.895			
	TV3	0.91			
EX	EX1	0.867	0.903	0.839	0.755
	EX2	0.874			
	EX3	0.866			
TR	TR1	0.91	0.933	0.892	0.826
	TR2	0.925			
	TR3	0.885			
ET	ET1	0.899	0.931	0.889	0.818
	ET2	0.899			
	ET3	0.916			
FB	FB1	0.913	0.934	0.894	0.894
	FB2	0.907			
	FB3	0.905			
SA	SA1	0.917	0.935	0.896	0.827
	SA2	0.917			
	SA3	0.895			
SB	SB1	0.924	0.951	0.923	0.867
	SB2	0.944			
	SB3	0.926			

Table 2. Variable reliability test results

C.   Model Hypothesis Test

This article uses PLS to test the path assumptions in the research model. When the T value is higher than 1.96, it indicates that the value has reached the 0.05 level, which is denoted by *. When the T value is higher than 2.58, it indicates that the value has reached 0.01 level, which is represented by **. When the T value is higher than 3.29, it indicates that the value has reached 0.001 level. Indicated by ***. From Figure 2, we can see that the hypothesis of this study is that the T values are: 6.283, 1.843, 10.824, 24.058, 46.054, and 17.910. Therefore, it can be seen that other assumptions are true except that the hypothesis H2 has a T value of 1.843<1.96, which is not significant.
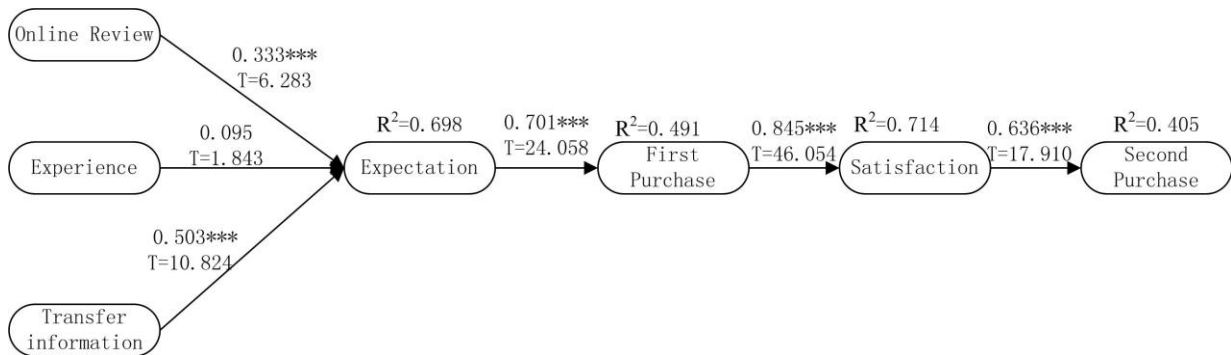
Figure 2. Model Hypothesis Test Result

III.   Conclusion

This paper uses survey questionnaires to collect first-hand data from consumers and then uses PLS software for data analysis, to study the factors that influence consumers to make purchase decisions, and further to improve marketing strategies to encourage consumers to make purchase decisions.

First, the factors that really affect consumer expectations are online reviews and online promotions. One of the most influential is online advertising, and consumers' own experience has little effect on expectations. It may be that consumers have unpleasant shopping experiences. However, these experiences have less impact on the consumer's expectations for repurchasing. Second, e-commerce sellers can use online positive reviews and

buyers' claims to improve consumers' perceptions of shopping experiences and encourage them to change their perceptions of sellers' goods so that they can conduct re-acquisition activities smoothly. Third, sellers can use big data to conduct accurate information campaigns, as well as the dissemination of exquisite pictures and video materials, and create good shopping scenarios to stimulate consumer sentiment and enhance consumer expectations. Fourth, the higher the degree of consumer satisfaction is, the stronger the willingness to buy again.

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