

The Empirical Study on Influence Factors of the Consumers' Online Shopping Behavior

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Abstract

online shopping presents in all aspects of life. It has some advantages of attracting consumers, but also has some disadvantages of troubling consumers. By aiming at online shopping status in China, this paper studied influence factors of the consumers' online shopping behavior through an empirical research and found that online shopping consumer groups have the features of young age, low incomes and more company employees. Main factors affecting consumers' online shopping mainly include website design, merchant reputation, advantages and safety factors of online shopping, etc.

Keywords

Online shopping, Online consumers, Influence factors .

1. Introduction

Under the guidance of rapid upgrading of internet technologies, domestic e-commerce has been developing rapidly in recent years, thus online shopping becomes an important form and habit of household consumption. The cheap price and convenient style of online shopping attract a vast number of consumer groups. An increasing number of people are accustomed to buying, preserving, negotiating and enjoying services online. The online shopping also is greatly concerned by the business circles and theory circles. Undoubtedly, online shopping develops an increasingly important role on daily life of residents, but it causes some inevitable problems, affecting their desire and selection of online shopping. When consumers buy some commodities in the virtual environment, it is impossible for consumers to contact with commodities directly, so it is hard for consumers to judge product quality, resulting in uncertainty of buyers and sellers' information in purchasing process. In this way, consumers need more clues to select their products. It is widely believed that influence factors of consumers' online shopping include consumer preference and psychological factors, perception on website reputation, product categories and prices, marketing forms of merchants, shopping environment, website page design, shopping navigation design, degree of safety, feedback history and merchant credit grades, as well as exchanges between buyers and sellers, etc. However, with the constant development changes of online shopping environment, it is necessary to study whether these factors still affect consumers' online shopping behaviors and whether it has other factors and causes a great influence on the consumers' online shopping behavior. Therefore, this paper will apply the empirical study to discuss the above-mentioned problems.

2. Literature Review

Studies indicate that people who have accepted higher education, have high incomes and engage in computer, education and other professional technical fields are relatively easier to accept the innovative shopping mode (Hoffman, Kalsbeek & Novak, 2000; Bellmanetal). Moreover, credit of both parties plays a crucial role on online shopping. Meanwhile, safety of transaction, products, quality and delivery also influence the consumers' online shopping behaviors (Flavian C. et al., 2006; Clyde W & Holsapple et al., 2005; Lee & Turban, 2001). In addition, website usefulness, convenience, security, website design, purchasing process, ways of payment, and online customer

service, etc., also play an important role on realization of transactions (Flavian C., et al., 2006; Koufaris M, William H. S., 2004; Szymanski D. M& Kise R. T, 2000).

In existing domestic literatures about influence factors of online shopping, with the double channels as the research perspective, Long Zhenjie and Liu Yizhi(2013) drew a conclusion that channels, situations, product attributes, merchants and customers are influence factors to drive consumers to do online shopping. Zhang Qi indicated that information security issues, product quality and merchant credit, product logistics distribution, and after-sales services affect the consumers' online shopping . In addition, Wang Qi only studied comments and sales volume information and drew a conclusion that scene clues will affect shopping decisions of online consumers . Similarly, Wang Quansheng, Yao Yanqing and Wu Shaowei found that credit and risk under the online shopping environment have a close relation . Wang Xiening analyzed online shopping motivation, psychology and behavioral process of customers and drew a conclusion that credit perception of both parties, perception on commodities' abundance and prices, perception on availability of website page, perception on security of transaction, perception on other shoppers' comments, and perception on online-offline exchanges dominate the consumers' online shopping behaviors. All of these factors will result in consumers' deviation to the online shopping behavior .

Literature review shows that existing studies involve in factor analysis of consumers, merchant factors and external objective environment. On the one hand, for personal factors of consumers, objectively, the higher education, the higher disposable incomes, frequently contacted with internet, and personal occupational areas will control selection of consumers. Subjectively, the behavior is affected by consumer motivation and psychological preference, as well as perceived risk degree on shopping from mental judgment. On the other hand, from the perspective of merchants, products are a key factor (such as prices, use experience, product quality, merchant credit, comments, and after-sales service, etc). Website popularity, website availability, merchant credit integrity, comments, and sales volume information are important factors for reference. From the perspective of external factors, channel sources of shopping information (recommendations of friends and relatives and advertising promotion), search navigation, security of payment, and safety and convenience of logistics distribution have the indispensable influences on online shopping selection of consumers.

3. Research Design

The questionnaire included two parts in the structure. The part one included basic personal information of respondents (including gender, age, incomes, occupation, education, online shopping experience, and monthly consumption status of online shopping, etc). Part two was the primary content of the investigation, applying existing Maturity Scale to design 26 indexes testing influence factors of the consumers' online shopping from individuals, merchants and external environment. In addition, Richter's grade 5 scale was applied to give a score. In order to avoid halo effect, two reverse questions were established.

The questionnaire was granted to individuals with different age groups and occupations through e-mail, online questionnaire website and papery questionnaire and ensured randomness and universality of samples, hoping to reach the better empirical effects. 200 questionnaires were granted and recycled timely. 180 questionnaires were recycled among 200 ones. In order to ensure questionnaire quality, the author established two reverse questions, including "I seldom concern comments of others" and "comments seldom concerned by me". In addition, some of questionnaires had a contradiction, showing that respondents didn't answer it seriously. Therefore, 23 questionnaires were invalid. In addition, 5 respondents stopped filling in the questionnaire without writing online shopping experience. All of them have been eliminated in statistical analysis. At last, there were 152 valid questionnaires.

3.1 Basic Descriptive Statistical Analysis Results

In the questionnaire, the male and female proportion occupied 48.7% and 51.3%, respectively, showing few proportional differences in respondents. As a result, the gender difference of

respondents wouldn't cause an influence on the empirical study. Relevant analysis showed that when confidence coefficient was 0.05, Age, monthly incomes and occupational types had a significant relation with shopping, indicating that age, monthly incomes and occupational types affected shopping foundation. Online shopping is mainly based on the network. Generally speaking, young people have more possibility to contact with the network than elder people, thus it is more likely to purchase online. Research truth also showed that people under 25 years old were keen on online shopping (48.7%). Their monthly online shopping consumption mainly concentrated on 100-300 yuan. Investigation found that people with low incomes (61.2%) and middle incomes (25%) preferred to do online shopping. Their payment amount of monthly online shopping was obviously higher than people with high incomes (13.8%). In addition, monthly online shopping level of employees (41.4%) greatly exceeded other occupations, followed by college students (28.9%).

3.2 Factor Analysis

Factor analysis means to analyze correlation coefficient matrix of data variables, so as to find out the factor controlling the original variables, to solve correlation of the original variables, and to finally reach a purpose of reducing dimensions and simplifying variables. The reliability analysis of data collection showed $\alpha=0.782$, which was obviously higher than 0.6, thus any index can't be deleted. Factor conditions were tested to obtain KMO and Bartlett test value, as shown in Table 1. Therefore, it can be observed that the evaluation indexes in the paper were suitable for factor analysis.

Table 1 KMO and Bartlett Test Table

Took sufficient samples for Kaiser-Meyer-Olkin measurement.		0.716
Test of Bartlett's Sphericity	Approximate chi-square	171.752
	df	28
	Sig.	.000

The questionnaire included individuals, products and external factors, thus factor analysis was also analyzed in three steps. The factor analysis is shown in Table 2 and Table 3 below.

Table 2 Principal Component List

Components	Initial eigenvalue			Rotation square and loading		
	Total	Variance %	Accumulation%	Total	Variance %	Accumulation%
1	2.540	28.226	28.226	2.096	23.285	23.285
2	1.278	14.196	42.421	1.690	18.779	42.064
3	1.058	11.755	54.177	1.090	12.112	54.177

Table 3 Rotation Load Matrix Table

Factors	Components		
	1	2	3
2. I really like opening and searching for the convenient shopping website	.731		
5. I really like shopping on the website with good after-sales service	.670	.167	-.261
3. I really like selecting the shopping website with simple process	.656		.182
1. I really like selecting the website with the higher popularity.	.628	.160	
4. I really like buying commodities on the website with good quality and cheap price.		.575	
7. I really like buying commodities on the website with high sales volume.	.160	.756	.133
14. I pay more attention to other comments on commodities.		.728	-.248
9. I think that online products are cheaper than physical stores.	.177	.721	
24. I seldom concern comments of others.			.946

The above-mentioned analysis showed that factor 1 is mainly related to the website, thus factor 1 is named as website factor; factor 2 is related to products, thus it can be named as product factor; factor 3 only contains reverse questions in the questionnaire, thus the index can't conduct factor analysis.

Similarly, the findings show that individual factors can be divided into personal preference and online shopping advantages. External factors can be divided into safety, promotion and distribution, etc.

4. Research Conclusions and Analysis

4.1 Research Result Analysis of Individual Factors

Existing studies of overseas scholars Hoffman et al., found that consumers who had more online shopping had the higher monthly disposable incomes, but the study drew an opposite result, namely people who had lower incomes preferred to do online shopping. Moreover, people under 25 years old were keen on online shopping. Monthly consumption level of online shopping mainly concentrated on 100-300 yuan, because generally speaking these people who might have no fixed economic sources but could be familiar with the network were students. At the same time, occupational type was a significant factor affecting the consumers' online shopping. The study also found that monthly shopping level of employees was higher than other occupations. However, the study of Bellmanetal(1999) showed that people with the higher incomes and education were relatively easier to accept the new-type shopping mode. The relationship between education and online shopping wasn't approved and it should be further studied in the future.

4.2 Research Analysis of Products

The study proved that in the online shopping process, significant factors affecting consumers to make a decision included convenient degree of website design, website credit, sales volume, comments, popularity and product prices. In website factors, the item that "I really like opening and searching for the convenient shopping website" got the highest score (0.731), indicating that convenient design of website was the significant point affecting the consumers' online shopping behavior in numerous website factors. Factor 2 was the indispensable product and it was the most crucial factor. The score of these three factors exceeded 0.72, indicating that consumers preferred to buy commodities on the website with good sales volume, good comments and reasonable prices. Factor 3 including "I seldom concern comments of others(0.946) and "I really concern comments of others" belonged to a reverse question. It can explain the factor independently, fully indicating effectiveness and authenticity of the questionnaire, which can ensure significance of research results.

4.3 Research Analysis of External Factors

External factors got the highest score among all factors, indicating that shopping safety was the key concerned by consumers. The author studied from influences of external decisions before shopping, payment safety of shopping center, and goods delivery after shopping. The items that "I am afraid that account and password will be stolen(0.858)" and "I am afraid that online shopping will reveal personal information(0.819)", fully indicating that consumers gave most of concern on safety and they were afraid that account and password would be stolen and website would reveal personal information. In addition, the item that "I think that online shopping is unsafe" also got the high score, namely safety factor played the decisive role on online shopping in numerous factors.

5. Conclusion

At present, online shopping presents in all aspects of life. It has some advantages of attracting consumers, but also has some safety disadvantages of troubling consumers, but fortunately online shopping in China has entered into the mature period. With the maturity of cloud computing, mobile internet, internet of things, etc., implementation of real-name system, and perfection of national credit system, e-commerce industry also becomes mature and rational. It is firmly believed that these problems bothering consumers will be solved easily in the coming future. Online shopping will be more prosperous and safety. Economic development in the e-commerce field will be flourishing increasingly.

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