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Special Seminal: Factors that influence Online Purchasing of Luxury goods in Wuhan

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Abstract: Consumer purchasing behavior of luxury goods in physical store is affected by various factors. There also exist factors that influence purchasing via online shopping. Through integrated analysis of these two kinds of factors, we can find factors that influence purchasing of luxury goods via online shopping. Questionnaire survey and quantitative analysis are needed measures in the research.

Keywords: linear regression, luxury goods, network marketing

1. INTRODUCTION

China's consumption of luxury goods has been through increasing growth since the beginning of 21st century. Although consumption of luxury goods in other parts of the world has been inflicted greatly by financial crisis of 2008, China's luxury goods consumption has still been in significant growth. According to recent release of China's Ten Years Official Report by World Luxury Association (WLA), China has potential to become the largest country of luxury goods consumption [5]. China's netizens is increasing rapidly, plenty of which has online shopping experience (Specific numbers can be found in reference book). By the end of June in 2012, China's netizens has mounted to 538 million people, with Internet popularizing rate reaching 39.9% [4]. As a result, it is of great importance to conduct research on China's luxury goods consumption status quo and features. Then, analysis of China's consumption behavior of luxury goods is needed for further marketing behavior, which makes great contribution to luxury goods enterprises.

2. WHY A STRUCTURAL MODEL SHOULD BE BUILT

Researches of luxury goods purchasing in physical store have been completed by many researchers. However, with the increasing popularity of online shopping, whether consumers are willing to accept and what kinds of factors can influence online purchasing of luxury goods remain to be further discussed.

3. APPROACHES TO BUILD THE MODEL

We consider that following factors influence online purchasing of luxury goods: consumers' network features perception [1][2][3], accessibility perception [3][6], serviceability perception [6][7] and risk perception [8][9][10]. In our research, data are collected though questionnaire survey, and factor analysis is used to make preliminary judgment whether these factors influence online marketing of luxury goods. Then we use linear regression to ensure these factors function significantly. Eventually, a few suggestions are given to luxury goods enterprises.

3.1 Questionnaire Survey

Influencing factor model of online purchasing of luxury goods is constituted by four dimension and 13 aspects (see figure 1).

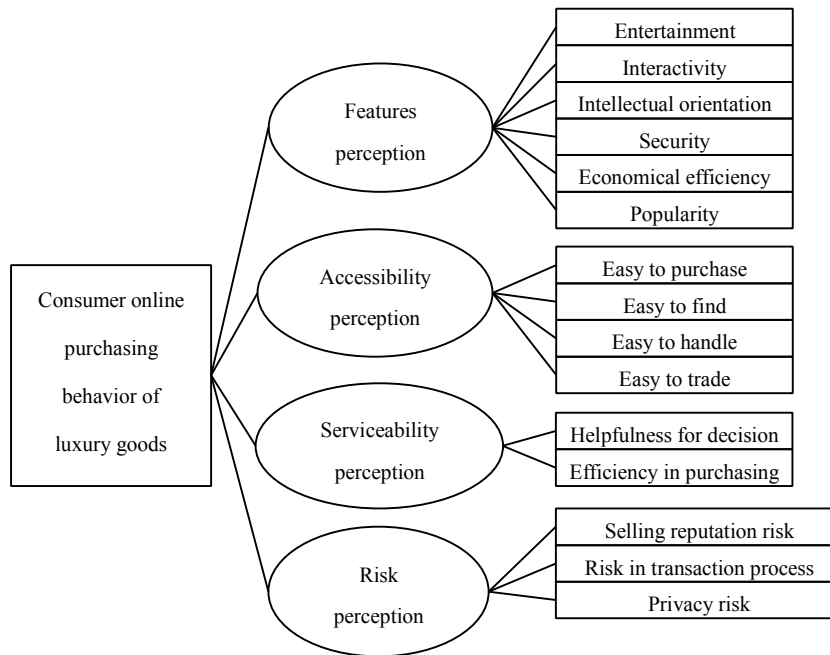


Figure1. Constitution of the model

According to variables of measurement above, we made a questionnaire of factors that influence online shopping. Reliability analysis was also conducted. General selecting and Likerts-Poiniscale were used as measurement tools. Questionnaire is shown as follows:

Table1. Structure of the Questionnaire

Objective	Dimension	Factor	Question	Reference
Consumer online purchasing behavior of luxury goods	Features perception	Entertainment	3 questions	Current indicators
		Interactivity	3 questions	Na Wang (2006) questionnaire of shopping online
		Intellectual orientation	3 questions	Current indicators of Thirteen Mine, emphasizing productive security
		Security	3 questions	Porter and Mowday (1974) factors that influence purchasing of luxury goods
		Economical efficiency	3 questions	Coleman and Borman (2000) factors that influence purchasing of luxury goods
		Popularity	3 questions	Coleman and Borman (2000) 27 integrated contextual performance; Yi Han (2006) questionnaire of shopping online
	Accessibility perception	Easy to purchase	3 questions	McCrae and Costa (1989) factors that influence purchasing of luxury goods
		Easy to find	2 questions	London and Mone (2004) factors that influence purchasing of luxury goods
		Easy to handle	4 questions	London and Mone (2004) factors that influence purchasing of luxury goods
		Easy to trade	2 questions	Na Wang (2006) questionnaire of shopping online
	Serviceability perception	Helpfulness for decision	2 questions	Janssen (2004) factor of shopping online
		Efficiency in purchasing	4 questions	Janssen (2004) factor of shopping online
	Risk perception	Selling reputation risk	3 questions	Na Wang (2006) questionnaire of shopping online
		Risk in transaction process	4 questions	Current indicators
		Privacy risk	3 questions	Na Wang (2006) questionnaire of shopping online

The questionnaire survey was conducted in the form of paper and online survey, both of which are random searching approaches. By these two approaches, we’ve got 196 valid sample data. These samples were analyzed according to primary demographic features, relevant experience of computer networks and online shopping experience which can be shown as follows:

Table2. Analysis of Sample Questionnaires

Item	Option	Respondent numbers	Percentage		Accumulative percentage	
			Our research	CNNIC	Our research	CNNIC
Gender	male	102	55%	52%	52%	55%
	female	94	45%	48%	48%	45%
Profession	students	56	28.6%	30%	28.6%	30%
	teachers and professionals	45	22.8%	23%	51.4%	53%
	enterprise and publish institution staff	52	26.4%	27%	77.8%	80%
	freelance	33	17.2%	15%	95%	95%
	others	10	5%	5%	100%	100%
Monthly disposable income	500 ¥ and less than	53	27%	26%	27%	26%
	500—999 ¥	21	11%	12%	38%	38%
	1000—1499 ¥	18	9.3%	10%	47.3%	48%
	1500—2999 ¥	52	26.7%	25%	74%	73%
	3000—4999 ¥	32	16.1%	16%	90.1%	89%
	5000 ¥ and more than	20	9.9%	11%	100%	100%

3.2 Factor Analysis

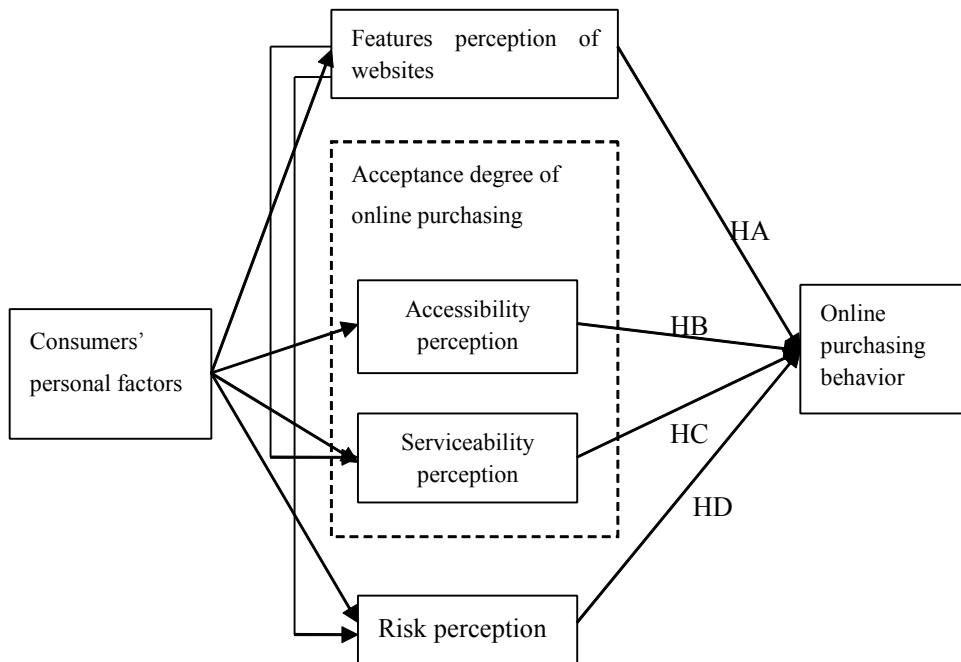


Figure2. A Model Built according to the Four Factors

The independent variable factor analysis results:

Component matrix3

	Component				Cumulative variances
	1	2	3	4	
HA1	.888	-.158	-.119	.014	28.746%
HA2	.749	-.023	-.161	.108	
HA3	.896	-.165	-.165	.033	
HA4	.804	.082	.117	-.158	
HA5	.795	-.103	.022	-.142	
HA6	.848	-.232	-.034	-.109	
HB1	.090	.701	.181	-.026	44.894%
HB2	.349	.680	.004	.066	
HB3	.182	.722	.192	.015	
HB4	.153	.729	.092	.147	
HC1	.060	-.090	.841	-.010	59.905%
HC2	.225	-.092	.813	-.174	
HC3	-.051	-.454	.536	.130	
HD1	.108	-.048	.177	.640	72.398%
HD2	.166	-.105	-.003	.848	

Extraction Method: Principal Component Analysis

a. 4 components extracted

KMO and Bartlett's Test

Kaiser-Meier-Olkin Measure of Sampling Adequacy		.704
Bartlett's Test of Sphericity	Approx. Chi-Square	1.458E3
	df	105
	Sig.	.000

Through linear regression model and according to 3,724 sample observations collected in 196 questionnaires, structural model of factors that influence China's online purchasing of luxury goods can be built as follows:

$$Z = a_i + HA_i \beta_{1i} + HB_i \beta_{2i} + HC_i \beta_{3i} + HD_i \beta_{4i} + u_i \quad (1)$$

$$i = 1, 2, \dots, 196$$

A_i is a constant term, u_i represent for random error, $HA_i = (HA_1, HA_2, \dots, HA_{196})$ represent for 196 sample variable values of network features perception. Similarly, $HB_i = (HB_1, HB_2, \dots, HB_{196})$ represent for 196 sample variable values of accessibility perception. $HC_i = (HC_1, HC_2, \dots, HC_{196})$ represent for 196 sample variable values of serviceability perception. $HD_i = (HD_1, HD_2, \dots, HD_{196})$ represent for 196 sample variable values of risk perception.

By linear regression analysis of factors HA, HB, HC, HD and outcome variables Z, the result is shown as follows:

Table3. Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square change	F Change	Df1	Df2	Sig. F Change	
1	.728 ³	.530	.520	.906	.530	53.824	4	191	.000	1.633

a. Predictor: | Constant | , FAC4-1, FAC2-1, FAC1-1, FAC3-1

b. Dependent Variable: Z

Coefficients²

Model	Unstandardized Coefficients		Unstandardized Coefficients	T	Sig.	95% Coefficients Intervals for B		Correlations			Co linearity Statistics	
	8	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VF
Constant	1.867	.326		5.734	.000	1.225	2.509					
FAC1-1	-.141	.064	-.176	-2.592	.010	-.248	-.034	-.147	-.184	-.172	.960	1.041
FAC2-1	.179	.063	.190	2.820	.005	.054	.054	.216	.200	.187	.976	1.024
FAC3-1	.157	.072	.160	2.161	.032	.014	.014	.219	.155	.144	.802	1.247
FAC4-1	.162	.063	.191	2.582	.011	.038	.038	.289	.184	.171	.806	1.240

4. SUMMARY

As it's shown in above table, each index is rational. Estimated basic presentation in the model is:

$$Z = a_i - 0.176 * HA_i + 0.190 * HB_i + 0.160 * HC_i + 0.191 * HD_i + u_i; i = 1, 2, \dots, 196$$

Through factors analysis, it's easy to find four factors-- consumers' network features perception, accessibility perception, serviceability perception, and risk perception, influence online purchasing of luxury goods.

5. CONCLUSIONS

Four variables contribute to China's online purchasing of luxury goods, respectively, features perception of network, as well as accessibility perception, serviceability perception, and risk perception of luxury goods consumption via online shopping. Among these four variables above, features perception of network accounts for the largest proportion of 40% in affecting China's online purchasing of luxury goods. The secondly important variable is consumers' accessibility perception of online purchasing of luxury articles.

Enhancing the construction work of luxury goods shopping website is one of the ways to achieve consumer confidence. Features perception of network influences consumers' attitudes towards online purchasing of luxury goods significantly. Consequently, in luxury goods website construction, how to enrich features of websites and make websites play the best part as information media between the seller and the consumer should be considered firstly. Websites' popularity can be achieved by advertising or other publicity media to enhance consumers' perception of online consumption of luxury goods. To achieve intellectual orientation of websites, online luxury goods stores should offer not only abundant and vivid product information but also background information as a way to improve consumers' perception level. To conduct economic construction of websites, online luxury goods stores should conduct sales promotion and similar measures to offer goods with better cost performance. Meanwhile, commercial quality guarantee and after-sale service are also necessary. To achieve interactivity of those websites, online luxury goods stores should communicate with consumers about commercial information, and offer correct order and distribution information. Forums or message boards can be built on the website to notice consumers' needs trend, help consumers to make purchasing decision and increase their social interactive experiences of online shopping. To ensure security of those websites, online luxury goods stores should pay more attention to improve security mechanism, guarantee privacy of transaction and personal information and lower consumers' risk perception level.

Last but not least, there are still some limitations of this research. First of all, there may be certain errors in the result of the questionnaires. In our research, both paper questionnaires and online questionnaires are combined together. However, the quality of the online questionnaires cannot be controlled because we cannot guarantee that people who fill the questionnaires online are not doing so randomly. And if this is the real situation, those useless questionnaires cannot be deleted and may have certain effects on the confidence and

utility of this research. Second of all, the studying method may still have limitations. In this research, statistic analysis such as factor analysis and linear regression are applied to study some of the relationship among the variables. But the influences of the intermediate factors are not counted. Therefore, this statistic analysis has limited depth.

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