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The Construction of Service Quality Evaluation System for Clothing Mobile Shopping Platform

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ABSTRACT: With the rapid development of mobile e-commerce, clothing consumer shopping habits move from the PC side to the mobile terminal, while the quality of service for the shopping platform also put forward higher requirements. Based on the combination of theoretical analysis and empirical research, this paper sums up the service quality evaluation system of apparel mobile shopping platform, including 27 secondary indicators and five indicators of reliable response, convenience, information, security and empathy, and on the basis of the mobile shopping platform to improve the quality of service recommendations.

Keywords: garment, Mobile shopping platform, service quality, Evaluation System

I. INTRODUCTION

With the development of mobile Internet and the popularity of all kinds of mobile terminal devices, people's habits of the Internet has changed, mobile Internet has become the main way of Internet for users. At the same time, many e-commerce enterprises began to layout the development of the mobile side, resulting in a variety of forms of business applications, including clothing mobile Internet shopping with its mobility, ubiquitous, flexibility and convenience, to provide consumers with a new Of the shopping experience, changing the traditional consumer PC online shopping habits of clothing, showing a huge development prospects.

For both consumers to buy clothing and use platform, the process of clothing purchase is also the process of service experience, high-quality service become an important prerequisite between a shopping platform and consumers to establish, maintain and develop long-term relationship, and it undoubtedly become the major electric business to improve clothing mobile shopping Platform quality of service in this competition to win a key link. The research on the quality of mobile shopping service is still lacking and there is no unified conclusion. Therefore, it is necessary to study the service quality evaluation system of apparel mobile shopping platform, and make clear its content and dimension composition so as to make the clothing mobile electric Business enterprises to further understand the consumer's psychological needs and services for the mobile clothing shopping platform to enhance the quality of service to provide reference.

II. THE CONCEPT OF CLOTHING MOBILE SHOPPING AND THE INTRODUCTION OF ITS PLATFORM

2.1 The Concept of Clothing Mobile shopping

Clothing Mobile shopping is an important type of mobile e-commerce applications, and has a very close relationship with mobile e-commerce. A.A. Ozok, J.Wei[1] think that mobile shopping refers to the mobile phone shopping, which means taking on e-commerce activities through the mobile Internet. Li Ting[2] writes in the study that mobile shopping, refers to the trading behavior to buy virtual or physical goods by using smart phones, tablet PCs and other mobile terminal devices, and then connecting the wireless network and visiting the shopping site client or WAP page. Combining the scholars' viewpoint and the research background of this paper, we can define the clothing mobile shopping as the behavior of the consumer information query and purchase with the mobile terminal equipment as the carrier in the mobile internet environment.

2.2 The Introduction of Its Platform

Mobile shopping platform refers to the consumer shopping platform. Under the environment of mobile network, consumers can shop either through the APP created by shopping companies, or through the mobile browser or logging on mobile IM. Broadly speaking, this can be counted as a consumer mobile shopping platform. For clothing consumers, The data"2015H1 China apparel industry report online shopping" by Ereli show that the main platform for the purchase of consumer clothing network is Taobao, Lynx and other integrated shopping platform. At the same time, in recent years, clothing for this sub-industry e-commerce market has been gradually opened up, resulting in the emergence of a series of clothing products for the main category of Mobile shopping platform like mushroom Street, beautiful, star wardrobe, Fan children, Beijing wardrobe, and gradually attract more and more consumer’s attention and favor clothing. In this paper, the clothing mobile shopping platform

specifically refers to the above two types of APP support for consumers to buy clothes, the next study will explore the common quality of its service, the quality of service evaluation system.

III. THE CONCEPT OF SERVICE QUALITY AND THE INTRODUCTION OF ITS PLATFORM

3.1 The Concept of service quality

Because of the many characteristics of service, the concept of service quality is quite different from the concept of quality of tangible product in terms of intangibility, quality difference and indivisibility. Gronroos[3] first proposed the concept of customer perceived service quality from the perspective of cognitive psychology, believing that service quality is a kind of perception, which depends on the comparison between customer expectation service quality and experience service quality. Based on the connotation of service quality, Parasuraman, Zeithaml & Berry (PZB) [4], for the first time, put forward the concept of electronic service quality, which is according to the efficient degree of making customers browse, Products or services. Chen Liangliang (2012) [5] in the study of the relationship between e-service quality and customer loyalty in mobile commerce and Eugenia (2015) [6] in the study of mobile shopping service measurement, the introduction of electronic service quality is based on PZB scholars'view. Therefore, the service quality of the clothing mobile shopping platform to be studied in this paper can be understood as the overall evaluation and judgment of the service superiority and quality in the mobile web shopping environment, the consumer satisfies the platform for efficient query, shopping and distribution of clothing products.

3.2 Evaluation of service quality

For the evaluation of service quality, scholars have tried and explored many fields, and have produced many classical service quality evaluation models, and established the corresponding service quality dimension and measurement scale.

Gronroos[3] put forward the perceptual service quality model, believing that quality of service includes two parts, technical quality and functional quality. In 1985,PZB proposed a service quality gap model, which divided the quality of service into 10 dimensions including reliability, responsiveness, durability, individuality, assurance, competence, proximity, courtesy, communication and empathy. Through further research, PZB scholars did correlation processing on these ten dimensions, and finally got the five-dimensional model of service quality, developed the classic SERVQUAL scale. Cronin and Taylor put forward service performance model, and established SERVPERF measurement scale. They abandoned the difference analysis method, and directly measured the performance of the customer perceived service process. The measurement dimension is also the five indexes and questions of SERVQUAL.

With the development of Internet technology and electronic commerce, the evaluation of electronic service quality in network environment has been paid more and more attention by scholars. Yoo and Donthu[7] put forward the SITEQUAL measurement scale for the quality of online retailing website. The scale mainly includes four measurement dimensions ,ease of use, aesthetic design, processing speed and security. Loiacono and Watson develop the WEBQUAL™ measurement scale based on the planning behavior theory and technology acceptance model theory in the field of information system. The scale includes usefulness, ease of use, amusement and complementarity. PZB scholars have developed two measurement scales, ES-Qual and E-Secs-Qual, on the basis of the classic traditional service quality measurement SERVQUAL model. They include 7 dimensions, efficiency, system availability, performance and privacy, responsiveness, compensation and contact, which is the most widely used electronic service quality measurement scale in the online shopping environment,.

The evaluation research on mobile e-commerce service quality is still in the exploratory stage, domestic and foreign scholars tend to do researches on mobile e-commerce and mobile Shopping service quality evaluation system. They combine the characteristics of mobile e-commerce and mobile shopping on the basis of summing up the quality of service in traditional and network environment.

Yi-Shun[8] et al think that quality of mobile e-commerce service can be measured from the quality of service, information, system quality. Eugenia Y[6] measure the quality of mobile shopping service separately for virtual goods and physical goods. The service quality of mobile-shopping physical goods is divided into five dimensions: contact, responsiveness, fulfillment, security and efficiency. The service quality of mobile-shopping virtual goods is divided into four dimensions: contact, responsiveness, fulfillment and efficiency. Peng Runhua (2011) [9] established the mobile travel electronic service quality evaluation system, from reliability, convenience, responsiveness, mobility, security, five aspects of the service quality to measure. Jiang Hongbo (2015) [11] devided electronic service quality into 9 dimensions ,efficiency, performance, reliability, privacy, security, availability, care, service and compensation, design and price in the study on the service quality of mobile electronic business and customer loyalty.

IV. THE CONSTRUCTION OF SERVICE QUALITY EVALUATION SYSTEM FOR MOBILE SHOPPING PLATFORM OF APPAREL

V.

4.1 Construction of initial measurement scale

Through the above domestic and international literature on quality of service and e-commerce service quality related research literature can be seen, mobile e-commerce and mobile shopping service quality research has been widely noticed, but on mobile shopping service quality evaluation study does not full and authoritative and need further exploration. It is concluded that the content of service quality of apparel mobile shopping platform mainly relates to reliability (responsiveness), responsiveness, convenience, ease of use, empathy, information quality, security and so on.

Then, on the basis of the above theoretical research, an interview outline was developed and the focus groups were interviewed. The main targets were the regular users of the clothing mobile shopping platform, the understanding of the service quality and the description of the shopping experience. This paper presents an initial scale for evaluating the service quality of the mobile shopping platform. The small-scale academic seminar is used to test the scope, item setting, dimension definition, narrative accuracy, problem popularization, terminology standardization and other issues to evaluate, and ultimately get 38 indicators item of service evaluation about the clothing shopping platform for quality.

4.2 Pre-test and data collection

Having a pre-test about the initial quality of service evaluation scale, delete four index items whose reliability is non-compliance and retain the 34 index items for large-scale survey. The questionnaire was mainly made by questionnaires, and sent to the friends via micro-letters and QQ, and asked the students, friends and relatives to carry forward in order to at a way of roll the snowball to carry out a large number of online survey questionnaire.The paper questionnaires are mainly distributed in the library, downtown area and internship companies. A total of 216 copies of questionnaires were collected, and 21 invalid questionnaires were filled out. The valid questionnaires were 189 and the effective recovery rate was 87.5%.

4.3 Reliability analysis and exploratory factor analysis

4.3.1 Reliability analysis

First, the reliability test was carried out, that is, the item-total correlation coefficient CITC value was used to purify the item, the consistency coefficient α reliability value was used to test the item reliability, and the CITC value less than 0.5 was deleted and the large sample reliability analysis result as shown in Table 3-1.

Table 3-1 Large Sample CITC and Reliability Analysi

Dimes.	Items	Items Before Purificaton		Items After Purificaton		Cronbach'sα Cahanged
		Citc	Cronbach's A After Items HasBeen Deleted	Citc	Cronbach's A After Items Has Been Deleted	
Infor.	T11	0.638	0.859	Unchanged		0.873
	T12	0.634	0.859			
	T13	0.638	0.858			
	T14	0.785	0.833			
	T15	0.745	0.841			
	T16	0.631	0.86			
Ease	T21	0.696	0.883	Unchanged		0.895
	T22	0.796	0.861			
	T23	0.709	0.881			
	T24	0.76	0.869			
	T25	0.759	0.869			
Conve.	T32	0.567	0.766	0.553	0.779	0.798 Increased To 0.800
	T33	0.64	0.74	0.721	0.694	
	T34	0.633	0.758	0.648	0.754	
	T35	0.467	0.800	Delete This Item		
	T36	0.675	0.726	0.610	0.759	
Empat.	T42	0.599	0.762	Unchanged		0.804

	T43	0.639	0.754		
	T44	0.514	0.789		
	T45	0.633	0.753		
	T46	0.577	0.771		
Relia.	T51	0.784	0.838	Unchanged	0.884
	T52	0.798	0.832		
	T54	0.626	0.901		
	T55	0.798	0.833		
Respo.	T61	0.768	0.909	Unchanged	0.921
	T62	0.811	0.900		
	T63	0.803	0.902		
	T64	0.815	0.9		
	T65	0.785	0.906		
Safety	T71	0.811	0.9	Unchanged	0.923
	T72	0.768	0.909		
	T73	0.803	0.902		
	T74	0.815	0.9		
	T75	0.785	0.906		

From the above table, we can see that the a coefficient of each dimension is above 0.7, indicating that the scale has a strong reliability.The analysis found that the initial dimension of convenience items T35 CITC value of 0.467 < 0.5, and delete the item, the convenience of the α value of the dimension rose to 0.800, so deleted the item, then the scale into 33 items.

4.3.2 *Exploratory factor analysis*

Next, using SPSS20.0, exploratory factor analysis was carried out. Principal component analysis and variance maximum rotation were selected to extract the factor with characteristic root greater than 1, and factor rotation was performed by orthogonal rotation method. According to the majority of the practice, the retention scale in a factor of the load is greater than 0.5, and in other factors less than 0.45 of the index items, delete the load factor is greater than 0.45 in more than one index item, delete the load on all factors are not greater than 0.5 index items. As shown in Table 3-2, each factor load is shown in the table. It is clear that the five main components extracted can explain the main effect of the indicator, and can be used as a service the quality of the rating index system.

Table 3-2 The factor load matrix of scale after rotation

ITEM	INGREDIENTS				
	1	2	3	4	5
T12	.037	.138	.194	.756	.060
T13	.025	.196	.123	.740	.161
T14	.172	.177	.092	.825	.199
T15	.296	.362	.095	.684	.114
T16	.380	.249	.066	.611	.147
T22	.215	.620	.313	.305	.118
T23	.284	.585	.261	.268	.211
T24	.244	.793	.157	.210	-.045
T25	.202	.827	.127	.171	.126
T32	.166	.827	.024	.184	.172
T34	.114	.782	.074	.150	.225
T43	.091	.241	.211	.182	.691
T44	.100	.210	-.064	.127	.641
T45	.391	.152	.094	.159	.679

T46	.252	-.017	.294	.114	.723
T52	.651	.335	.209	.168	.218
T54	.624	-.067	.252	.268	.325
T55	.685	.409	.220	.137	.222
T61	.796	.266	.123	.080	.081
T63	.737	.136	.288	.165	.217
T64	.811	.166	.268	.041	.133
T65	.660	.315	.367	.221	.087
T71	.192	.008	.841	.097	.214
T72	.190	.084	.852	.124	.117
T73	.227	.160	.855	.154	.098
T74	.347	.287	.687	.139	-.007
T75	.235	.210	.804	.108	.074

4.3.3 Dimension naming and final evaluation index

In this study, the factors were named according to the final results of the scale factor analysis.

The first factor mainly contains seven index items,:the mobile shopping platform can deliver goods to me in accordance with the commitment; the mobile shopping platform's clothing goods meet with the description; The mobile shopping platform for apparel products will be shipped at the specified time; the use of the mobile shopping platform, online consultation can get a quick response; the problems encountered in using the mobile shopping platform can be properly resolved in time ;when using the mobile shopping platform, the problems encountered can be properly resolved .Platform transaction requests can be processed in time, respectively. These items are mainly related to the real description of platform goods, the effective fulfillment of commitments and the timely and proper aspects of customer service response, mainly from the initial dimensions of reliability, responsiveness of the measurement project, so named it reliable response.

The second factor includes six index items, the mobile shopping platform clothing goods classified clear and orderly that easy to query; the mobile shopping platform page can load and response quickly ; the mobile shopping platform is easy to learn; The mobile shopping platform has a variety of search methods (two-dimensional code, bar code scanning, photo purchase, voice purchase, etc.)making search convenient; the mobile shopping platform is easy for me to communicate with others in shopping experience, respectively. Mainly related to the ease of platform operations, the use of convenience, measurement items from the initial dimension of ease of use, and named it convenience for ease use.

The third factor mainly contains five index items, namely: the mobile shopping platform will not disclose my personal information; the mobile shopping platform will not abuse my personal information; the mobile shopping platform is to protect my personal transactions ;The mobile shopping platform is to protect my mobile payment security; the mobile shopping platform protect my account information from being used by others. The third factor mainly related to the platform of privacy protection, payment security. Transaction security, and so on ,as to be named security.

The fourth factor mainly comprises five index item items, each of which has the latest clothing commodity information on the mobile shopping platform; the mobile shopping platform has a large number of matching display information; the mobile shopping platform has detailed description of the clothing commodity exactly; the mobile shopping platform can convey the information of goods through multimedia (text, image, animation) and so on, These items are mainly concerned with measurement of the initial dimensional security, the quality of the information of the platform and named informativity .

The fifth factor mainly contains four index items, respectively, the mobile shopping platform can recommend me clothing products that meet my needs ; the mobile shopping platform push me advertising or promotional information according to my needs; the mobile shopping platform can adjust based on My own needs; the mobile shopping platform makes me feel that I am their important customers. These items are mainly concerned with the services to platform's consumers and personalized services, which mainly from the initial dimensions of empathy in the measurement of indicators ,and named it empathy.

Therefore, the appraisal system of service quality of mobile shopping platform established in this study is shown in Table 3-3.

Table 3-3 Appraisal System of Service Quality of Mobile Shopping Platform

DIMEN./ FACTORS	NUM	PROJECT
RELIABLE RESPONSIVENESS	RRE1	The mobile shopping platform deliver goods to me in accordance with the commitment
	RRE2	Clothing goods on the mobile shopping platform meet with the description
	RRE3	The mobile shopping platform apparel products will be shipped at the specified time
	RRE4	online consultation can get a quick response
	RRE5	The problems encountered in using the mobile shopping platform can be properly resolved in time
	RRE6	when using the mobile shopping platform, the problems encountered can be properly resolved
	RRE7	Platform transaction requests can be processed in time
CONVIENENCE	CEU1	Clothing goods classified clear and orderly that easy to query
	CEU2	He mobile shopping platform page can load and response quickly
	CEU3	easy to learn for people
	CEU4	The mobile shopping platform is easy to operate
	CEU5	A variety of search methods (two-dimensional code, bar code scanning, photo purchase, voice purchase, etc.)making search convenient
	CEU6	easy for me to communicate with others in shopping experience
SECURITY	SAF1	The mobile shopping platform will not disclose my personal information
	SAF2	The mobile shopping platform does not misuse my personal information
	SAF3	The mobile shopping platform can protect my personal trading behavior information
	SAF4	The mobile shopping platform protect my mobile payment security
	SAF5	The mobile shopping platform protects my account information from being used by others
INFORMATION	INF1	The mobile shopping platform has the latest clothing goods information
	INF2	The mobile shopping platform has a large number of matching display information
	INF3	The mobile shopping platform clothing goods described in detail
	INF4	The information on the mobile shopping platform is easy to understand
	INF5	The mobile shopping platform can convey product information through multi-media (text, images, animation), etc.
EMPATHY	EMP1	The mobile shopping platform can recommend to meet the needs of my clothing goods
	EMP2	The mobile shopping platform will be based on my needs to push advertising or promotional information
	EMP3	The mobile shopping platform can be adjusted according to my own needs
	EMP4	The mobile shopping platform makes me feel that I am their important customer

VI. RESEARCH CONCLUSIONS AND RECOMMENDATIONS

On the basis of theoretical analysis and empirical research, five dimensions and 27 second-level indexes

of service quality of clothing mobile shopping platform are established. As can be seen from the results of the analysis, in order to improve service quality garments mobile shopping platform, we should proceed from the following aspects.

First of all, China's clothing mobile shopping is still in the development stage, we must improve service awareness, and improve service quality and reliability of timely response to increase consumer confidence;

Secondly, with the development of mobile shopping, there will be more and more consumers of clothing shopping online, the platform should improve the ease of use of the system and the convenience of functional settings;

Thirdly, in the course of consumer mobile shopping clothing, security is an important feature, the platform should improve the network security, increase the fairness of the transaction and transaction information confidentiality and increase consumer privacy protection measures to improve the consumer Quality of Service Perception;

Fourth, due to the virtual nature of mobile online shopping, consumers can not directly contact the kind, a variety of products and services to become consumers understand the platform for the primary commodity media platform, the platform should ensure the richness of apparel product information, detailed and diversified expression of the information presented;

Fifth, mobile shopping has real-time, mobility and other characteristics. if the clothing shopping platform in the process of service, through the mobile terminal for individual identification of customers, perceived location and consumer preferences, to provide personalized service and caring services will be able to Greatly improve the consumer perception of service quality platform.

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