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The Effect of Service Guarantees on Service Quality of Online Merchants

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Abstract: The paper attempted to study the effect of service guarantees on service quality in online environment. Based on the evaluation model of e-service quality which was demonstrated in previous works, we considered the quality of e-services in four aspects including information, interaction, process and outcome quality. The moderating variable in our research is business reputation. By analyzing the secondary data collected from Taobao, our results implied that the better service guarantees bring significantly positive impacts on information quality and interaction quality of online merchants. Moreover, compared with high level reputation, lower level reputation will strengthen the effect of service guarantees on the interaction quality. Finally, some suggestions were put forward to improve service qualities for online retailers.

Keywords: service guarantees, service quality, business reputation

1. INTRODUCTION

Electronic commerce as a new business platform gives consumers rights to choose and speak more. At the same time, the complaints from consumers is speeding up. According to the statistic data from China E-business Research Center, the total number of complaints from online consumers reached 41360 in the first 6 months of 2013. Among them, 45.4% of complaints are about online shopping. The top ten problems listed on the online shopping complaints, such as after-sale services, refunding, merchandise exchange, return policy and quality issues obviously reflect the severe situation of e-commerce service quality. Therefore, it is necessary to improve e-commerce service quality to prohibit customer purchasing intention decreasing.

In the traditional environment, service guarantee strength has significantly positive impact on service quality^[1]. Service guarantee can be defined as a commitment provided by service organization on its service quality to reduce consumers perceived risk. And in order to improve the reliability and integrity of their commitments, organization also provides additional compensation commitments in the basic of service guarantees, which means that enterprises are willing to compensate when their service quality can't reach the standard they had promised^[2]. Domestic studies of service guarantees almost focused on experience product in traditional environment, such as tourism industry. Moreover, those studies mostly concentrated on the effect of service guarantees on consumer behavior. There were short of works under the network environment, especially about the influence of service guarantee strength on e-commerce service quality. Therefore, the purpose of this paper was to explore these questions.

Q1: Whether the service guarantee strength has influence on online service quality?

Q2: If exists, whether business reputation has a moderating role in above effect?

2. LITERATURE REVIEW

2.1 Service quality

With the development of e-commerce, service quality have gradually become the critical standard to assess consumption experience. Based on previous works about service quality under traditional environment, some scholars such as Zeithaml defined electronic service quality as customer satisfaction when they are shopping in e-commerce website. They thought that electronic service quality not only include information service quality

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before transaction, but perceived service quality after transaction^[3]. Along with online consumption gradually increasing, more and more scholars conducted in-depth researches on online service quality. Rust thought service quality play an important role in consumption experience; and increasing the understanding of electronic service quality is critical to sustainable development of e-business, for more than once adverse consumption experience will affect consumer satisfaction^[4]. Waltner proposed that online consumer tends to be more concerned about service quality. Thus, online merchants should spend more in order to improve electronic service quality. They considered that e-commerce service is not only rely on interaction but personalized demand^[5].

In order to improve electronic service quality, scholars established some evaluation models of e-commerce service quality in empirical way. Yang chose 1992 commerce website to verify a five-dimension model of electronic service quality including availability, content validity, adequacy of information, accessibility and interactivity^[6]. Li Junjun thought attitudes, intentions and behavior of consumers will be affected by the quality of e-commerce website. They put forward that the quality of e-commerce website consists of three aspects including information, system and service.

Some scholars applied traditional model of service quality (the SERVQUAL model) to e-commerce environment. Gefen integrated responsive, reliability and assurance in the SERVQUAL model into interactivity to establish online service quality model including tangible, interactivity, and empathy. In addition, they thought these three dimensions have effect on customer satisfaction and loyalty^[7].

Through in-depth study, Joel E. Collier put forward that electronic service quality should include the outcome quality and recovery quality, besides interaction quality of website^[8]. By summarizing previous works, Zhou Xi pointed out that e-commerce service quality includes interaction quality, process quality, environment quality, outcome quality and information quality.

2.2 Service guarantees

Searching service guarantees in literature databases, such as CNKI, ProQuest, EBSCO, only few articles about it can be obtained. Hart initially defined service guarantee as a statement that customer can expect what the enterprises provide as service recovery after service failures^[9]. Some scholars, such as McColough, thought service guarantee is a commitment on service quality. Subsequently, the scholar began to study service guarantees of experience products under traditional environment^[10]. For example, Sowder studied "the 100% customer satisfaction service guarantee" what implemented by Hampton Inn hotel. It turned out that overall hotel service quality is improved, the perceived risk from customer reduced and the benefit of enterprise increased. This service guarantee has brought out \$12000000 net income for the Hampton Inn. Jochen Wirtz pointed out that service guarantee is an effective tool to improve service quality. By enabling companies to focus on consumer demands, the possibility of service failure is reduced. In addition, service guarantees can increase perceived quality and expand market scale by reducing the perceived risk.

With more and more demand for high service quality, domestic scholars have also done some researches about service guarantees. Jin did a simulation experiment on travel service industry. He pointed out that service guarantees can reduce customer's perceived risk, improve service quality reliability and overall situation of enterprises, enhance customer satisfaction and stimulate purchase intention. Through reviewing scholars' articles about service guarantees, Jin put forward that service guarantee is an important means for enterprises to achieve differentiation, and it play a positive role in improving the overall quality of service.

2.3 Service guarantee strength

Many scholars described service guarantee as a "zero-one variable" indicating the presence or absence of a service guarantee. But the Hays and Hill proposed service guarantee should be quantified as a continuous variable, with service guarantee strength to describe it. Service guarantee strength is defined as "The degree to

which a firm sets clear service quality standards for customers care about and has a formal policy for quickly giving meaningful compensation to customer when these standards are not met”^[11]. In the follow-up study, Hays and Hill pointed out that high service guarantee strength can deliver the signal of service quality, which effectively reduce the risk of purchase and incentive enterprise to provide high quality service toward customer. In those ways, enterprise can improve service quality and increase customer satisfaction and loyalty^[12].

To sum up, service guarantees can effectively improve the quality of service, and the higher strength of service guarantees promotes the improvement of service quality more obviously. Therefore, It is urgent to do some research about whether service guarantee strength have an effect on service quality in online environment.

3. RESEARCH MODEL AND HYPOTHESES

Combining with the model that scholars have put forward, this paper studied the four aspects of service quality including information quality, interaction quality, process quality, outcome quality, and analysis the role of service guarantee strength to those four aspects in the network environment.

This research regarded information quality as the first dependent variables to embody the accuracy and completeness of information about goods and services provided by businesses. The interactive quality as the second dependent variables, which improves the quality of services employee delivered^[13] reflect online business need to communicate effectively with consumers and reply customers in sophisticated ways. Progress quality as the third dependent variables present the speed of remedial services provide by online merchants. After a service failure, enterprise made appropriate compensation for consumers under the constraint of service guarantees. Service guarantees enhance the possibility of dealing with customers’ complaints successfully^[14]. This study regarded process quality as the forth dependent variables to reflects consumer satisfaction toward the whole transaction process. High service guarantees have positive impacts on consumer satisfaction. Moreover, service guarantees improve the overall satisfaction through reducing the discontents among customers when service failure occurs^[15].

Moreover, it is only in recent years that the domestic electronic commerce put forward service guarantees. Because of asymmetric informations, consumers can hardly determine the quality of the commodity on online transactions. They always rely on business credit to screen commodity quality, for high reputation representing high quality service^[16]. Moreover, in condition of stabilized price, consumers tend to choose businesses with high reputation^[17]. Service guarantee also is a quality signal; So, this article introduced the reputation of merchant as a key moderator to study the effect on service guarantee strength to service quality in e-business. Through above analysis, the study built a model about service guarantee strength acting on service quality in e-business, as shown in figure 1.

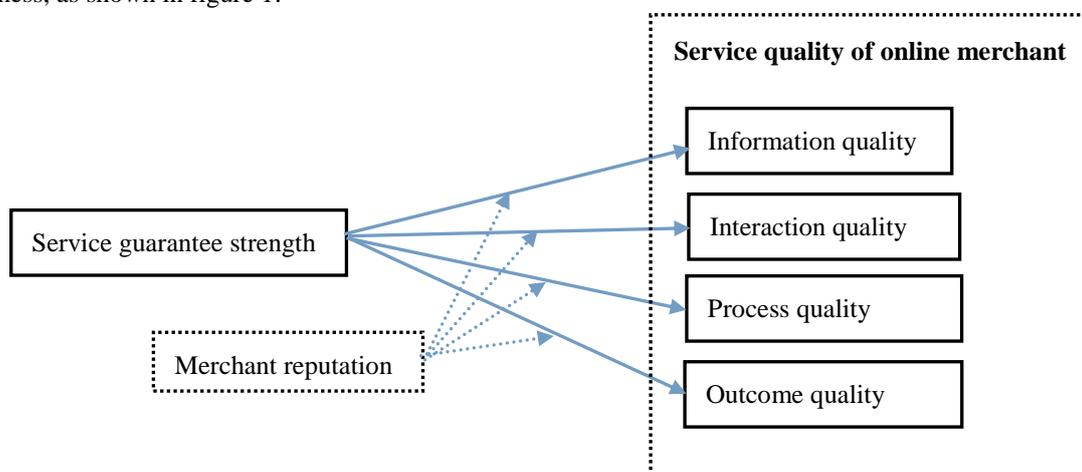


Figure 1. The Research Model

Based on existed research, this study consider that service guarantee strength does a positive effect on service quality in electronic environment, and proposes following hypotheses.

H1: Service guarantees have positive impact on information quality provided by network business.

H2: Service guarantees have positive impact on interaction quality provided by network business.

H3: Service guarantees have positive impact on process quality provided by network business.

H4: Service guarantees have positive impact on outcome quality provided by network business.

H5a: Compared with high level reputation, low level reputation will strengthen the effect of service guarantee on the information quality.

H5b: Compared with high level reputation, low level reputation will strengthen the effect of service guarantee on the interaction quality.

H5c: Compared with high level reputation, low level reputation will strengthen the effect of service guarantee on the process quality.

H5d: Compared with high level reputation, low level reputation will strengthen the effect of service guarantee on the outcome quality.

4. METHOD

4.1 Data

Shown by data in China E-Business Research Center, Taobao accounted for 95.1% of C2C market; So, this study choose Taobao as the research platform. There are large numbers of objective data about commodity transaction, recorded by website system, and those data are completely on the perspective of consumers. Data in this study were collected artificial from Taobao.

It was in November that we gather data. Because of knitwear selling well in this season, the research objects we chose are knitwear retailers in Taobao. Compared with skirt, knitwear have larger target consumer population. All of these reasons made data more convincing.

In order to ensure the accuracy of data, data collection was controlled within a week. During this time, there were no large-scale promotional activities happened in Taobao. On the purpose of controlling irrelevant variable, the collection selected merchants which is in Taobao instead of in Tmall, for Tmall have different reputation system with Taobao. Businesses which run more than a year have stable sales, therefore, the selected shops need to run more than one year and its sales figures exceed zero in nearly 30 days. For the commodity price is difficult to control, we removed stores which average prices are too high or too low. The collection of data began in November 20th in 2013, and end in November 27th, which lasted seven days. The total number of sample is 1265. Each sample includes six aspects, i.e., Service Guarantee Strength, Reputation, Item as Described, Communication, the Average Speed of Refund and Positive Feedback.

4.2 Measurement

- Service guarantee strength

Apparel businesses in Taobao usually provide Buyer Protection, Return within Seven Days, Freight Insurance, Return Commitment as service guarantees. In this study, service guarantee strength is divided into two dimensions, with the low degree representing only offering Return within Seven Days, and the high degree on behalf of offering both Return within Seven Days and Return Commitment.

- Information quality

Information quality represents the accuracy of the commodity information, and calculated by the score of Item as Described in Taobao evaluation system, ranging from one star to five stars. Its value is also from one to five.

- Interaction quality

Interaction quality represents the attitude of business solving problem, and calculated by the score of Communication in Taobao evaluation system, ranging from one star to five stars. Its value is also from one to five.

- Process quality

Process quality represents the speed of the remedial services provided, which calculated by the Average Speed of Refund in Taobao evaluation system, and calculated by the website system according to the transaction records.

- Outcome quality

Outcome quality is on behalf of the consumer satisfaction, and expressed by Positive Feedback in Taobao evaluation system. Consumers have rights to mark positive, neutral, negative after purchase. The value of Positive Feedback is calculated by system.

- Business reputation

Taobao use integrating system to value the level of reputation. Through a rough statistics, we take the Crown and above as high reputation level, then, below the Crown is low dimension.

4.3 Methodology

This paper adopted quantitative research method, and used SPSS19.0 software to analysis secondary data collected from Taobao. This study used one-way ANOVA to analysis whether statistical significance difference exist between variables.

5. RESULTS

5.1 Data description

According to the data in Table 1, the value of variables are relatively average. There are some differences among dependent variables, tiny though it is.

Table 1. Descriptive Statistics

	N	Min	Max	Mean	Dev
Service guarantee strength	1265	1	2	1.48	.500
Information quality	1265	4.10	5.00	4.7102	.11779
Interaction quality	1265	4.30	5.00	4.7903	.08196
Process quality	1265	.00	19.59	3.0374	1.43854
Outcome quality	1265	.8880	1.0000	.984908	.0121886
Business reputation	1265	1	2	1.48	.500
Valid N	1265				

5.2 The main effect of service guarantee strength

In order to study the influence of service guarantee strength on electronic service quality, this paper had service guarantee strength as variables and four aspects of service quality as dependent variables to do one-way ANOVA analysis. As shown in table 2, service guarantee strength have effect on information quality ($M1=4.7042$, $M2=4.7168$), $F(1, 1266) = 24.643$, $P=0.058$, supporting H1. Service guarantee strength also have impact on interaction quality ($M3=4.7866$, $M4=4.7944$), $F(1, 1266) = 26.112$, $P=0.092$, supporting H2. Service guarantee strength failed to have impact on process quality ($M5=3.0282$, $M6=3.0474$), $F(1, 1266) = 4.107$, $P=0.813$, rejecting H3. Service guarantee strength have no effect on outcome quality ($M7=0.9846$, $M8=0.9852$), $F(1, 1266) = 0.035$, $P=0.383$, rejecting H4. Because those data were gotten from the record in e-commerce

websites, they gap little. We believed that 0.01 gap is large enough. Therefore, above analyses indicated that service guarantee strength have positive impact on information quality and interaction quality.

Table 2. Hypothesis testing: result of ANOVA analysis

Dependent variable	M _{low guar}	M _{high guar}	F	p
Information quality	4.7042	4.7168	25.643	.058*
Interaction quality	4.7866	4.7944	26.112	.092*

*p<0.1

5.3 Regulating effect of reputation

Because of the establishment of H1 and H2, we introduced reputation into ANOVA analysis to study the regulating effect.

Table 3. Hypothesis testing: homogeneity analysis

Dependent variable	Reputation	Service guarantee strength	Levene statistic	Significant
Interaction quality	Low	Low	4.8089	.064*
		High	4.8174	
	High	Low	4.7602	.454
		High	4.7725	

*p<0.1

As shown in Table 3 and Figure 2, information quality in low reputation (M₁₃=4.7295, M₁₄=4.7433, P=0.376>0.1), not significant. Information quality in high reputation (M₁₅=4.6743 vs M₁₆=4.6916, P=0.606>0.1), still not significant, rejecting H5a. Interaction quality in low reputation (M₉=4.8089, M₁₀=4.8174, P=0.064<0.1), which is significant; Interaction quality in high reputation (M₁₁=4.7602, M₁₂=4.7725, P=0.454>0.1), not significant, supporting H5b. Therefore, the effect on the interaction quality would more significant if the merchant considered to be on lower level reputation.

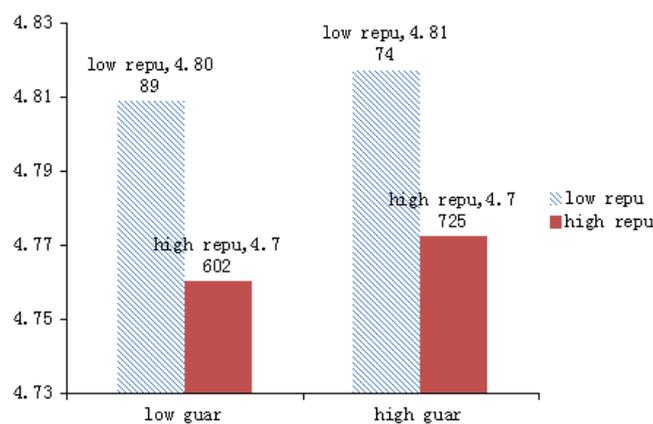


Figure 2. regulation of reputation on the influence of service guarantee strength in interaction quality

6. DISCUSSION

6.1 Empirical findings

On the basis of existed research, this paper studied on whether service guarantee strength have impacts on e-business service quality. The results are shown in table 4:

Table 4. results

Hypothesis	Whether it is verified	Hypothesis	Whether it is verified
H1	yes	H5a	no
H2	yes	H5b	yes
H3	no	H5c	no
H4	no	H5d	no

Service guarantee strength have positive impacts on electronic information quality and interaction quality. Information quality in the study represents the accuracy of informations. Stronger service guarantee strength provided by online merchant means to giving a greater commitment on their service quality^[18]. Marketers need to promote the credibility of informations about, e.g., goods, services, in order to enhance consumer satisfaction and loyalty. Interaction quality expresses the communication between retailers and customers. To ensure high service quality, merchants should focus on consumer demands with high sense of responsibility, and pay great attention to keep good relationships with their customer.

Service guarantee strength have no significantly impact on process quality and outcome quality in e-commerce. First, the environment that we did research is in e-commerce website, taking Taobao as an example. At present, stores in Taobao rarely provide service guarantees which involves in the speed of refund. Businesses are not aware that it may be a method to improve service quality. Second, the time of data collection was from November 20th to 27th. In November, "Double Eleven Carnival" organized by Taobao may cause some impacts on data, especially the speed of refund. Data from China Industry Research display that the average speed of refund in the "double eleven Carnival" was approaching 25%, which is far more than the average.

The effects on the interaction quality are more significant if the merchant considered to be on lower level reputation. The consumers always rely on seeking tangible evidence to reduce risk. Credit Rating Mechanism in Taobao is just a clue to provide guarantees for quality. But, when customers chose from stores at the same reputation, reputation is not a sign to reduce risk anymore. Then, consumers will pay attention to service guarantee strength.

As a result, businesses with low reputation tend to provide high quality services and respond consumers enthusiastically. The study had the Positive Feedback to quantify outcome quality. The result of research is service guarantee strength has no significant impact on outcome quality, because many factors have effect on feedbacks, e.g., price, attributes of goods. Service guarantee strength is one of the factor, moreover, not the decisive factor. Data of this study come from transaction records, and are easily affected by consumers' psychological. In order to avoid unnecessary troubles, customer always grant positive feedbacks to retailers. It affected analysis results to an extent.

6.2 Implications

According to above conclusions, we give following suggestions to online retailers :

Firstly, service guarantee strength have positive impacts on electronic information quality and interaction quality. Merchants ought to provide service guarantees to enhance consumers' perception of service quality effectively. A efficient service guarantee, according to the conclusion of this paper, means authenticity of informations and good interaction with consumer. Online merchants should avoid giving excessive commitments which might doubt by consumers. In other words, service guarantees should be provided within a scope which can be achieved.

Moreover, according to results, to online merchants which is in low credit, stronger service guarantee strength have more significant effect on interaction quality. Therefore, businesses which not have high

reputation advantage should provide effective service guarantees to turn potential consumer into loyal consumers.

7. CONCLUSION

The study analyzed six variables including Service Guarantee Strength, Reputation, Item as Described, Communication, the Average Speed of Refund, Positive Feedback from 1266 online knitwear retailers. The conclusion is that the service guarantee strength have positive influence on e-business information quality and interaction quality. The effects on the interaction quality are more significant if the merchant considered to be on lower level reputation. Finally, we provided some suggestions for online retailers to improve consumers' satisfaction and loyalty so as to increase sales.

REFERENCES

- [1] Eduard Cristóbal Fransi, Frederic Marimon Viadiu, 2007. A study of e-retailing management: analysing the expectations and perceptions of Spanish consumers[J], *International Journal of Consumer Studies*, (31): 613-622.
- [2] Zhang P, Von Dran G. 2001, Web Sites that Satisfy User: An Empirical Investigation of Web Site Interface Features[J]. *Journal of the American Society for Information Science*, 51(4): 1253-1268.
- [3] Zeithaml V A, A. Parasuraman, and A Malhotra. 2000, A Conceptual Framework for Understanding e-Service Quality: Implications for Future Research and Managerial Practice, working paper, [Z] report No. 100-115, Marketing Science Institute, Cambridge, MA.
- [4] Rust, R.T., Lemon, K.N. E-Service and the Consumer. *International Journal of Electronic Commerce*, 2001, 5 (3): 85-102
- [5] Waltner C. Live. Internet Service Set To Capture Customer Attention. *InformationWeek*; 2000, 815: 174-178
- [6] Yang Z L, Cai S H, Zheng Z et al. 2005. Development and Validation of an Instrument to Measure User Perceived Service Quality of Information Presenting Web Portal[J]. *Information & Management*, (42): 575-589.
- [7] Gefen, D. 2002. Customer loyalty in e-commerce[J]. *Journal of the Association for Information Systems*, 3: 27-51.
- [8] [8] Joel E. Collier, Carol C. Bienstock. Measuring Service Quality in E-Retailing J. *Journal of Service Research* 2006 8 (3) 260-275
- [9] Hart, C W L. The power of unconditional service guarantees[D]. *Harvard Business Review*, 1988, (4): 54-62.
- [10] McCullough M.A. And Gremler D.D., 2004, "A Conceptual Model and Empirical Examination of the Effect of Service Guarantees on Post-purchase Consumption Evaluations" *Managing Service Quality*, 14(1), pp, 58-74.
- [11] Hays, Julie M. and Arthur V. Hill, 2001b, A longitudinal study of the effect of a service guarantee on service quality. *Production and Operations Management*, 15(Spring): 117-131.
- [12] Hays, Julie M. and A.V. Hill, 2006, Service guarantee strength: The key to service quality. *Journal of Operations Management*, 24(6): 753-764.
- [13] Marmorstein, H, Sarel, D, and Lassar, W M Increasing the persuasiveness of a service guarantee: The role of service process evidence. *EJ3. Journal of Services Marketing*, 2001, 15(2): 147-159.
- [14] Tucci, LA, and Talaga, J. Service guarantees and consumers' evaluation of services[J]. *Journal of Services Marketing*, 1997, 11(1): 10-18.
- [15] Ostrom, A L, and Iacobucci, N The effect of guarantees on consumers' evaluation of services[J]. *Journal of Services Marketing*, 1998, 12(5): 362-378.
- [16] Wolff, C. 2004. Hampton keeps it fresh. *Lodging Hospitality* 60(11), 26-32.
- [17] Wirtz, J., 1998. Development of a service guarantee model. *Asia Pacific Journal of Management* 15(1), 51-75.
- [18] Marmorstein, H., Sarel, D., Lassar, W.M., 2001. Increasing the persuasiveness of a service guarantee: the role of service process evidence. *Journal of Services Marketing* 15(2/3), 147.