

Research on the influence mechanism of service quality on customer brand co-creation behavior in e-commerce

Fukang Yin^a, Zhongguo Zhao^{b,*}, Yang Chen^c, and Dan Li^d

School of business, Sichuan Agricultural University, Dujiangyan 611830, China

^ayin1079294924@163.com, ^b1797831398@qq.com, ^c18713588223@163.com, ^d2955674921@qq.com

*Corresponding author

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Abstract: At present, there is little research on brand co-creation in e-commerce. This paper discusses the influence mechanism of service quality on customer brand co-creation behavior based on socio-technical theory and constructs a moderated mediation model. The empirical results show that service quality can directly influence the customer brand co-creation behavior while it can directly influence the customer brand co-creation behavior through the roles of customer relationship quality and loyalty. And female customers will have a stronger willingness to participate after relationship quality is strengthened. Finally, the study discusses the theoretical contribution and puts forward some suggestions for e-commerce enterprises.

1. Introduction

Brand community and social media are the focus of researching brand co-creation while the research on e-commerce platform is lacking. The e-commerce platform is an important carrier for direct interaction between enterprises and customers. Therefore, it is of great significance to study the co-creation behavior of customer brands in this environment. Customer judgment of service quality in an online environment will affect their attitudes and behaviors. Socio-technical theory focuses on the integration of social factors and tools or technologies [1], based on this theory, the paper explores the impact mechanism of service quality on customer brand co-creation behavior in e-commerce environment, in order to help e-commerce enterprises.

2. Theoretical basis

Socio-technical theory includes three factors: technology, people and tasks. Generally speaking, task factors are explained by technical and human factors.

2.1 Technical factors in e-commerce

Service quality is defined as the degree of difference between a customer's normative expectations of services and their perceptions of service performance [2]. It is generally believed that service quality measures how well the service level matches customer expectations when it is divided into three dimensions of interactive quality, environmental quality and outcome quality. In the e-commerce, service methods such as page beautification are the technical means for enterprises to satisfy and attract customers, therefore, service quality becomes a technical factor.

2.2 Human factors in e-commerce

Commitment, trust, and satisfaction are generally considered to be the three main dimensions of relationship quality. Customer loyalty represents a stronger relationship between customers and brands. Gender differences can lead to behavioral differences. In e-commerce, relationship quality and customer loyalty represent customer attitudes, while gender itself is customer attributes, all three factors are human factors.

2.3 Task factors in e-commerce

Attracting customers to participate in brand co-creation is the inherent demand of e-commerce enterprise development, so customer brand co-creation behavior becomes a task factor.

3. Research hypothesis

Despite the differences in the dimension of service quality, these studies show that different dimensions have a positive impact on customer attitudes such as satisfaction and trust, while service quality can directly affect individual behavior[3]. Service quality is an important factor affecting the customer's attitude and behavior, thus:

H1a Service quality has a positive impact on relationship quality.

H1b Service quality has a positive impact on brand co-creation.

Studies have confirmed that relationship quality has a positive impact on customer loyalty[2]. Relationship quality can significantly enhance the customer's active participation behavior [4]. Brand co-creation is an important way for customers to help companies create value, this behavior is positive, thus:

H2a Relationship quality has a positive impact on customer loyalty.

H2b Relationship quality has a positive impact on brand co-creation.

The consequences of online customer loyalty include purchase, visit, communication, satisfaction, etc[5]. These actions have a positive effect on the brand and are an important manifestation of customer brand co-creation behaviors, thus:

H3 Customer loyalty has a positive impact on brand co-creation.

Research based on gender identity theory found that male customers and female customers have behavioral differences [6], thus:

H4a Gender moderates the effect of service quality on brand co-creation.

H4b Gender moderates the effect of relationship quality on brand co-creation.

H4c Gender moderates the effect of customer loyalty on brand co-creation.

4. Scale and data

4.1 Sample and data collection

The study selected 483 customers of China's B2C platform as samples, of which 447 were valid samples(92.55%). Males (52.8%) were slightly more than females (47.2%), respondents were mainly young people under 40 years old, 89.26% were owning universities degree or above, 87.24% said that they have purchased online more than 10 times in the past year.

4.2 Scale

All constructs are measured with 7-point Likert scales, the scales of service quality, relationship quality, customer loyalty and brand co-creation are adapted from Lu et al [7], Tajvidi et al [8] and Lin and Wang [9], and these scales have good reliability and validity.

Using CFA method to test the reliability and validity of the scale. The factor load of all items, the cronbach's α coefficient and CR of each latent variable are greater than 0.7, representing good reliability. AVE of each latent variable are greater than 0.5, representing good convergence validity, while the square root of all AVEs is greater than the pearson correlation coefficient between the corresponding latent variables, representing good discriminant validity.

5. Empirical analysis and results

5.1 Model fitting

The indicators of the model all reached the general standard, and the overall model fit was good. $\chi^2=586.092$, $df=241$, $\chi^2/df=2.432$, the ratio is within the interval standard of 1-3. $CFI=0.942>0.9$, $TLI=0.934>0.9$, $SRMR=0.051<0.08$, $RMSEA = 0.057 <0.08$.

5.2 Structural Equation Model

Using Mplus software for data analysis, it was found that the direct path coefficient between latent variables was positive and significant at the 0.05 level, and R^2 explained 60.6%, 39%, 53.5% variance of brand co-creation, customer loyalty, and relationship quality, respectively, both within an interpretable level, indicating that the direct path coefficient is ideal. According to Fig. 1, with the exception of H4a and H4c, the rest of the assumptions are supported.

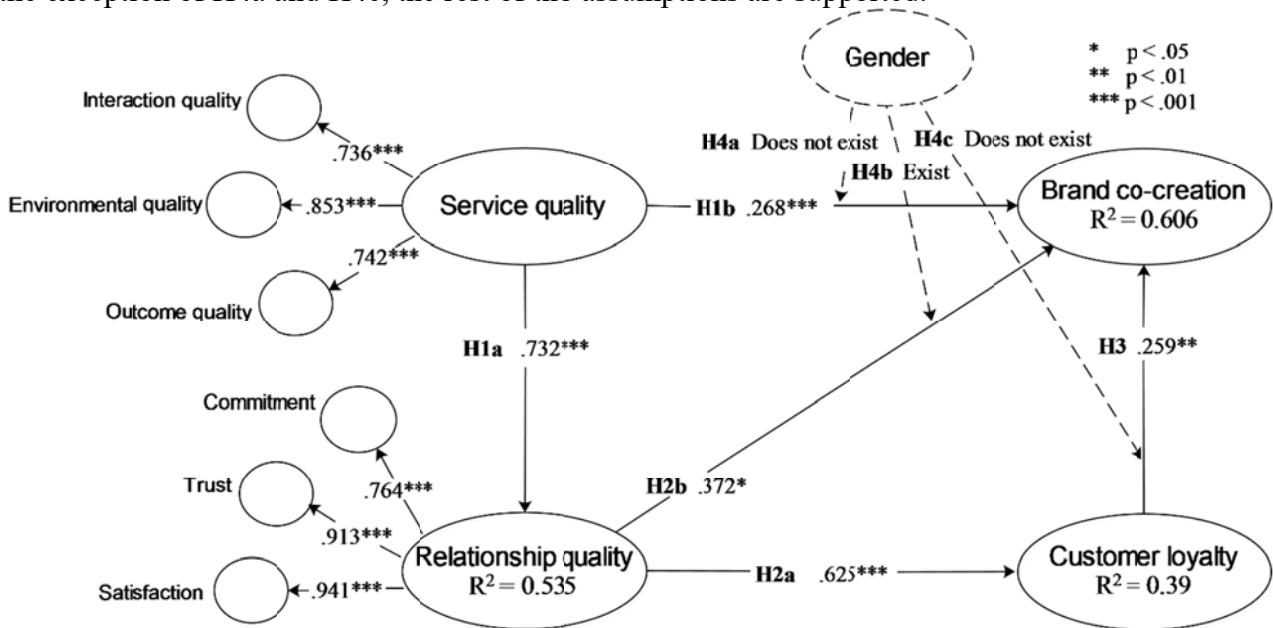


Figure 1. Analysis results

5.2.1 Mediation effect test

The study uses the Bootstrap method for mediation effect testing. As can be seen from Table 1, relationship quality and customer loyalty have obvious mediating effects. and the mediation effect of relationship quality (0.272) is stronger than the chain intermediary effect of relationship quality and customer loyalty (0.118).

Table 1. Mediation effect test

Path coefficient	SE	Z	Bias-corrected (95% confidence interval)		Percentile (95% confidence interval)	
			Lower limit	Upper limit	Lower limit	Upper limit
Service quality → brand co-creation						
0.268**	0.101	2.66	0.065	0.455	0.064	0.453
Service quality → relationship quality → brand co-creation						
0.272**	0.084	3.238	0.137	0.474	0.127	0.454
Service quality → relationship quality → customer loyalty → brand co-creation						
0.118**	0.034	3.445	0.058	0.196	0.056	0.192

Note : *** p < 0.001, ** p < 0.01, * p < 0.05, bootstrap sample size = 2000.

5.2.2 Moderating effect test

The study finds that there is a moderating effect of gender in the path of relationship quality affecting brand co-creation, and women play a more important role than men. While the moderating effect of gender in the remaining pathways is not significant.

6. Conclusion and discussion

6.1 Conclusion

Based on the socio-technical theory, the empirical results show that the service quality of the e-commerce platform can directly or indirectly promote the customer brand co-creation behavior. At the same time, when the customer's commitment, trust and satisfaction is strengthened to the company, and relationship quality will make women more willing to participate in brand co-creation than men.

6.2 Theoretical significance

At present, the research on brand co-creation in the online environment mainly focuses on brand communities and social networking sites, but the research on e-commerce environment is scarce. Therefore, the research results in this paper enrich the theoretical achievements of brand co-creation in this environment, and it is helpful for the future research on brand co-creation.

6.3 Conclusion Management significance

According to the age distribution of the respondents, it is recommended that e-commerce enterprises strengthen their attention to the youth groups. Based on the conclusions, this paper proposes the following suggestions. First, enterprises should optimize the service level from the front, the middle and the end of the service and all service content, so that customers can feel the high service quality at any time. Second, enterprises should pay attention to the reasons for the deterioration of customer attitudes, and adjust services in time to avoid customer loss. Third, enterprises should increase the attention of female customers in the middle of the service, which can encourage female customers to quickly participate in brand co-creation.

6.4 Limitations and future research

This study also has the following limitations that can be improved in future research. First, future research can be sampled in multiple countries, considering whether there are differences in research results across cross-cultural contexts. Second, the change of customer attitude in e-commerce is affected by many factors, but based on the research purpose, this paper only considers the impact of service quality, and future research can be expanded. Third, the research result based on cross-sectional data should be used with caution because it may change over time, so we suggest that future research should use longitudinal data.

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