Research on the Influence of Logistics Service Quality of Cross-border E-commerce Platform on Customer Loyalty

LinShen Du

International Chinese College, Rangsit University, Pathum Thani, Thailand
*Corresponding author, E-mail: 269808641@qq.com

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Abstract

Under the background of "The Belt and Road" and "online silk road", China's foreign trade with cross-border e-commerce platform as the carrier has a strong momentum of development. In order to adapt to the rapid development of the current cross-border e-commerce and provide customers with good logistics service experience, the cross-border e-commerce companies must pay attention to the quality of the current logistics services. First, the purposes of this study are to make up for the shortcomings of the previous logistics service quality which only targeted at the traditional business environment and B2C business model and to enrich the existing literature on logistics service quality in the field of cross-border e-commerce. Second, based on previous literature and through data analysis from 302 effective questionnaires, the study aims to construct the structural equation model of logistics service quality, customer satisfaction, customer trust, and customer loyalty using SPSS22.0 and AMOS20.0 and explore the correlation between these variables. In the last, The results show that the reliability, timeliness, information, staff ability, and economy of logistics service quality of cross-border e-commerce platform will have a positive impact on customer loyalty through customer satisfaction and customer trust. Cross-border e-commerce platform is providing customers with the satisfaction of goods and services, however, it cannot immediately turn consumers into its platform of loyal customers, especially when this kind of behavior appeared only once.

Keywords: *Cross-border e-commerce platform, logistics service quality, customer satisfaction, customer trust, customer loyalty*
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1. Introduction

With the rapid development of economic globalization and information technology, cross-border e-commerce has had a dramatic impact on China's traditional foreign trade. With the continuous increase of cross-border e-commerce business, the demand for cross-border logistics has become more and more urgent. However, China's current cross-border logistics services have been far from meeting the actual needs of e-commerce development. This paper takes the service quality of cross-border e-commerce logistics as the point of penetration, expects to provide a theoretical basis for cross-border e-commerce enterprises to optimize logistics service quality and improve customer loyalty, and helps cross-border e-commerce enterprises improve their core competitiveness.

1.1 cross-border e-commerce

Scholars have different definitions of cross-border e-commerce. Asosheh, Nalchigar, & Jamporazmey (2010) believes that cross-border e-commerce refers to the business activities in which the transaction subject completes the transaction on the basis of e-commerce. Cao (2014) pointed out that cross-border e-commerce is a trading activity that takes place in different countries or regions. The activity needs to be realized by mail or express delivery and has the characteristics of small amount and fast speed. Combining the views of various scholars, this paper believes that cross-border E-Commerce refers to the trade entities belonging to different countries and regions, and through the e-commerce platform to achieve commodity transactions, complete transaction payments, and rely on cross-border logistics to achieve commodity circulation of international business activities.

1.2 service quality

In the 1970s, with the rise of the service industry, some scholars noticed that the service was different from the product and further believed that the product quality was also different from the service quality. In the 1980s, Finnish marketer Gronroos (1982) first introduced the expectancy cognition theory

1475

into the study of service quality and proposed the concept of "perceived service quality" from the perspective of psychology. He believes that the quality of service belongs to customer perception. The perception is determined by the customer's comparison of the expected value of the service with the actual perceived value. If the actual perceived value is greater than the expected value of the service, the perceived quality of the customer is better, otherwise, it is worse. Therefore, the evaluator of service quality should be the customer rather than the enterprise. With the support of the American marketing association, Parasuraman, Zeithaml, and Berry carried out a large number of empirical studies on bond brokers, Banks, credit card companies, and maintenance services. After that, Parasuraman, Zeithaml, and Berry (1985) proposed the theory of "the continuum of service quality perception". According to this theory, the independent variables of service quality assessment are customer expectation, service process quality, and service result quality. If the service quality fails to meet customer expectation, it means that the service quality is "unacceptable quality". If meet customers' expectations means that the service quality is "satisfactory quality"; When exceeding the customer's expectation, it is the "ideal quality"; Moreover, they use ten dimensions of tangibility, reliability, reactivity, trust, capriciousness, courtesy, safety, proximity, communication and understanding to construct service quality, Later, Parasuraman, Zeithaml, and Berry (1988) further proposed that service quality should be a dynamic process, including not only the cognitive process after service but also the service expectation before acceptance. On this basis, they simplified the original ten dimensions into tangibility, reliability, reactivity, trust, and empathy, in which reliability belongs to service results, while the other four belong to various measures and service contact in the service process, This is the famous SERVQUAL perceived quality evaluation method. At this point, the theoretical framework of service quality is basically established.

1.3 logistics service quality

Since the 1960s, with the rapid development of the economy, the quality of logistics service has attracted more and more scholars' attention. The most representative of the early is the 7Rs theory proposed by Perreault & Russ (1974). They believe that the quality of logistics service is an activity of creating part of the product value by providing consumers with the right customer and the right service in the right place at the right time and in the right channel at the right price to meet the right needs of consumers. Mentzes, Gomes, and Krapfe (1989) overcome this shortcoming by studying the quality of logistics services over the past four decades, and believe that logistics services have two aspects: Customer marketing services and physical delivery services, Among them, the measurement index of PDS includes the availability of goods, the quality of goods and the timeliness of goods. However, these three indicators are only for physical distribution indicators, or one-sided for the whole logistics service quality. After that, based on the previous research, Mentzer, Flint & Kent (1999) combined the SERQUAL scale to conduct empirical research on the customers of DHL, a large logistics service provider in the United States, and further supplemented that timeliness, availability, and soundness are the most important aspects for customers to perceive the logistics service quality, A complete definition of logistics service quality is proposed. And in 2001, a complete logistics service quality model was built, which is the most widely used LSQ model.

1.4 relationship quality

Most of the researches on relationship quality are from the perspective of marketing. It's based on Crosby Evans's theory. Crosby, Evans, & Cowles (1990) studying the insurance industry, believed that consumers would decide the trust level of enterprise customers according to their previous satisfaction level. Good relationship quality can effectively reduce consumers' worries and uncertainty in the transaction process, and increase their confidence in future consumption in the enterprise. Gummesson (2002) believes that relationship quality is a measure of the relationship between customers and corporate marketing personnel, and a part of customers' perception of the enterprise. Good relationship quality will have a positive impact on consumers' transaction behavior, improve their loyalty to the enterprise, and thus achieve long-term business cooperation with the enterprise. Liu and Yao (2015) believe that relationship quality is a part of customers' perception of enterprise service quality, including trust and satisfaction. Consumers

evaluate whether the services provided by enterprises can meet their own needs. If the evaluation is good, it will enhance consumers' trust in the enterprise, and then reach long-term cooperation with the enterprise.

1.5 customer loyalty

Scholars' research on customer loyalty originated in the 1950s. At first, this theory was only used to measure customers' willingness to repeat purchase, but with the development of an economy, this indicator has been far from meeting the requirements of enterprises. The development of this view can be divided into the following three stages:

The first stage is dominated by behaviorism. They believe that customer loyalty refers to the frequency of customers purchasing a certain product. Tucker, for example, believes that being able to buy a product three times in a row is customer loyalty. Carman (1970) believed that purchase frequency was equal to customer loyalty. Assael (1984) defines repeat purchase as customer loyalty. The second stage is dominated by the attitude school. This school made up for the fact that the behavioral school did not explain the factors that formed consumers' loyalty to a brand, and believed that attitude loyalty must be accompanied by a favorable attitude towards the brand in addition to repeated purchase. Loyalty is a repeat purchase behavior that includes emotional tendency, attitude following, and evaluation and approval. Oliver (1997), based on the psychological perception of consumers, believes that customer loyalty means that customers promise to repeatedly purchase their preferred products or services in the future, and they will not change their behavior due to the change of market pattern and product price. Guan (2016) believes that customer loyalty refers to customers' psychological dependence on products and their willingness to buy again. The third stage is the attitude-behavior theory. This view integrates the previous two split attitudes and holds that brand loyalty includes state loyalty and behavior loyalty, and that repeat purchase is the behavior embodiment of attitude loyalty. This view gives a more comprehensive consideration to consumers' loyalty behavior and has better universality and scientificity. To sum up, this paper adopts the perspective of customer loyalty from the perspective of attitudinal behavior theory and holds that customer loyalty includes attitude loyalty and behavioral loyalty. Compared with the traditional environment, e-commerce environment can also be studied from this perspective.

2. Objectives

1. To review literature through the study of relevant literature, in-depth understanding of cross-border e-commerce, service quality, logistics service quality, relationship quality, and customer loyalty theory.

2. To establish a model of logistics service quality. Based on the research and understanding of relevant theories, this research aims to establish a model of the relationship between logistics service quality and customer loyalty of cross-border e-commerce platforms.

3. To propose improvement suggestions for the enterprise, using SPSS22.0 and AMOS20.0 to conduct sample data analysis, test variable hypothesis using structural equation model method, and explore the relationship between the logistics service quality of cross-border e-commerce platforms and customer loyalty and its influencing factors. Based on the test results, the researcher aims to put forward suggestions for cross-border e-commerce platforms to improve logistics service quality and enhance brand loyalty.

3. Materials and Methods

1. Literature research method. On the premise of linking theory with reality, this paper summarizes the concepts of cross-border e-commerce, service quality, logistics service quality, relationship quality, and customer loyalty using literature research method and designs a questionnaire based on the actual situation of cross-border e-commerce.

2. Method of statistical analysis. In this paper, based on the previous literature review and research, according to the PZB and LSQ scale, combined with the actual situation of cross-border e-commerce and the service standard of the express delivery industry, a 28-item questionnaire was designed. Plus, in the form of electronic questionnaires issued in the network, a total of 350 copies were distributed and 302 valid questionnaires were collected. Then, Using SPSS22.0 and AMOS20.0 to conduct sample data

analysis, testing the variable hypothesis using structural equation model method, and exploring the relationship between logistics service quality and customer loyalty.

4. Results and Discussion

4.1 Determination of service quality dimensions of cross-border e-commerce logistics

Based on the collation and summary of previous literature and the reality of cross-border e-commerce, SERVQUAL model and LSQ model are implemented to adjust and determine the dimensions of logistics service quality of cross-border e-commerce enterprises as follows:

(1) Delete tangibles and replace them with informational

Tangibility of SERVQUAL model for enterprises with modern service facilities and attractive service equipment to improve customer satisfaction, and the virtual nature of cross-border electricity enterprise don't need the actual contact between with customers, so the actual service facilities, it is not so important, on the contrary, cross-border electricity provided by the virtual platform requires a wealth of information to meet the needs of the consumers, whether it's description of the goods or the order of all kinds of logistics information, is critical for consumers, Therefore, according to the actual situation of cross-border e-commerce, this paper changes the tangibility into informational.

(2) Retain reliability

Reliability refers to the ability of an enterprise to accurately fulfill its service commitments, which should be the capability of every service enterprise. In the context of cross-border e-commerce logistics, it requires cross-border e-commerce logistics to deliver goods to consumers in a timely, accurate and sound manner.

(3) Responsiveness is decomposed into timeliness and flexibility

Responsiveness refers to the willingness of enterprises to help customers and rapidly improve service level. Based on cross-border e-commerce logistics, it means to shorten the logistics time as much as possible, help customers to get the goods as soon as possible and flexibly handle or adopt different logistics methods in case of emergencies. Timeliness can be reflected in that after customers place orders, logistics can confirm orders, pick up goods and deliver goods as soon as possible. In addition, it can shorten the delivery time of goods. Flexibility is reflected in the use of different modes of transport according to different goods, such as third-party logistics or express lines, or the handling of large orders during holidays.

(4) Empathy and assurance are merged into employee ability

Assurance refers to the knowledge, courtesy, and ability of employees to express confidence and credibility. Empathy refers to caring for and providing personalized services to customers. Both of them consider how to improve customer satisfaction from the perspective of employees, and all of them hope that employees have higher quality and ability to meet customers' needs. In the context of cross-border e-commerce logistics, they can be measured as employees' ability.

(5) Increase the economy

Traditional SERVQUAL does not take economic indicators as measurement dimensions. However, in e-commerce, most cross-border e-commerce consumers are middle and bottom income earners and have a high sensitivity to price. If the price of logistics service is high, it will cause negative feelings of consumers. In addition, due to the particularity of cross-border e-commerce, the logistics cost is higher than that of ordinary logistics, and the cost of returning goods is also higher. Therefore, this paper takes the economy as an important dimension and adds it to the measurement model of logistics service quality of e-commerce.

4.2 Model design and assumptions

In the previous section, based on the authoritative SERVQUAL model and LSQ model and in combination with the characteristics of cross-border e-commerce, this paper selected six aspects of informational, reliability, flexibility, timeliness, employee ability, and the economy as the measurement dimensions of cross-border e-commerce logistics service quality. In the literature review, it can be found that most scholars believe that the research results of customer loyalty in the traditional environment are also applicable in the e-commerce environment. In the traditional environment, an important factor in

customer loyalty is relationship quality. Therefore, this study introduces relationship quality (customer trust, customer satisfaction) as an intermediary variable of customer loyalty. Based on the above analysis, this paper constructs a model of the influence of cross-border e-commerce logistics service quality on customer loyalty, as shown in the following figure:
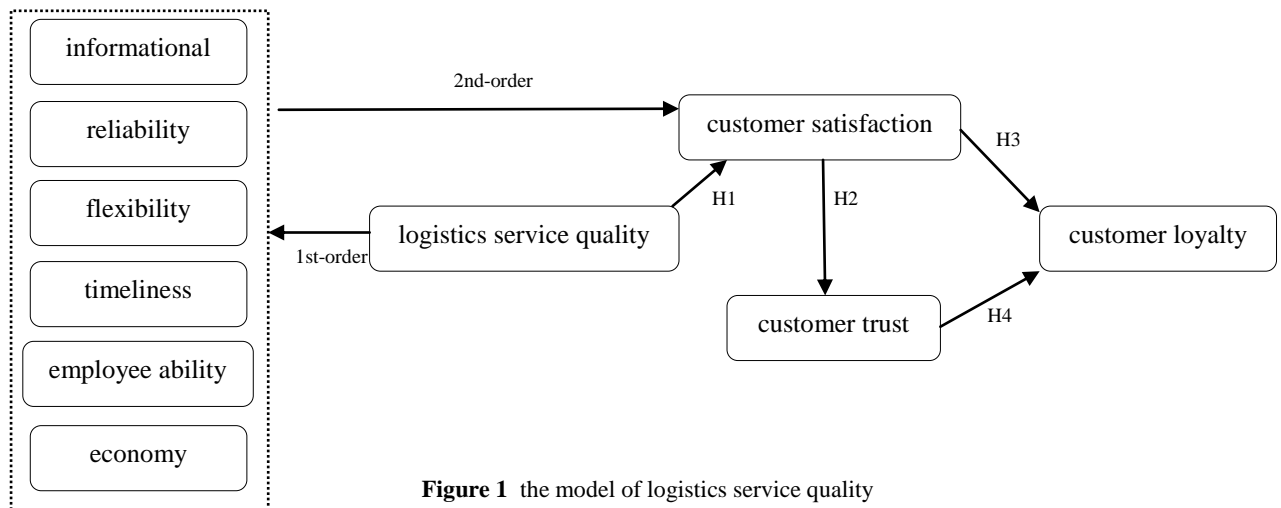

Figure 1 the model of logistics service quality

Hypothesis 1 (H1) logistics service quality of cross-border e-commerce platform has a positive impact on customer satisfaction;

(H1a): the informational of logistics service quality of cross-border e-commerce platform has a positive influence on customer satisfaction;

(H1b): the reliability of logistics service quality of cross-border e-commerce platforms has a positive influence on customer satisfaction；

(H1c): the timeliness of logistics service quality on cross-border e-commerce platforms has a positive influence on customer satisfaction;

(H1d)：the flexibility of logistics service quality on cross-border e-commerce platforms has a positive influence on customer satisfaction;

(H1e): the employee ability of logistics service quality of cross-border e-commerce platform has a positive influence on customer satisfaction;

(H1f): the economy of logistics service quality of cross-border e-commerce platform has a positive influence on customer satisfaction;

Hypothesis 2 (H2): customer satisfaction of cross-border e-commerce platforms has a positive impact on customer trust.

Hypothesis 3 (H3): customer satisfaction of cross-border e-commerce platform has a positive impact on customer loyalty;

Hypothesis 4 (H4): customer trust of cross-border e-commerce platforms has a positive impact on customer loyalty.

4.3 Empirical research analysis

After the preliminary survey of the questionnaire, the items with poor reliability and validity were removed. After that, in this survey, 350 questionnaires were distributed and 302 valid questionnaires were returned.

4.3.1 reliability test and Validity test

This paper analyzes six dimensions of logistics service quality, customer satisfaction, customer trust, and customer loyalty through SPSS20.0. Cronbach's alpha coefficient of each dimension was greater than 0.7, in which Cronbach's alpha value was 0.738, 0.831, 0.786, 0.760, 0.753, 0.780, 0.740, 0.729, and 0.782 in 9 dimensions of information, reliability, timeliness, flexibility, employee ability, economic

performance, customer satisfaction, customer trust, and customer loyalty, respectively. It indicates that the measurement items of each variable have acceptable internal consistency, which also indicates that the data obtained from the questionnaire in this study have good reliability. It can be seen through the confirmatory factor analysis of Amos22.0 on logistics service quality, customer satisfaction, customer trust, and customer loyalty that the estimated values of standardized parameters of all questions are greater than 0.5, t-values are greater than 1.96, P values are up to a significant level of 0.001, CR values are greater than 0.7, and AVE values are greater than 0.5. The model fit index of each variable is shown in the following table:

Table 1 The 1st-orde CFA of logistics service quality

evaluation index	CMIN/DF	P	GFI	AGFI	IFI	CFI	RMSEA
fitting values	2.239	0.000	0.906	0.870	0.933	0.932	0.064

Table 2 The 2nd-orde CFA of logistics service quality

evaluation index	CMIN/DF	P	GFI	AGFI	IFI	CFI	RMSEA
fitting values	2.290	0.000	0.898	0.867	0.925	0.925	0.065

Table 3 The CFA of customer satisfaction, customer trust and customer loyalty

evaluation index	CMIN/DF	P	GFI	AGFI	IFI	CFI	RMSEA
fitting values	2.060	0.000	0.949	0.905	0.956	0.955	0.053

Source: The results of this study

To sum up, all indexes meet the standard fitting value, indicating that the fitting effect of the scale is good and the validity analysis meets the requirements.

4.3.2 Result analysis of structural equation model
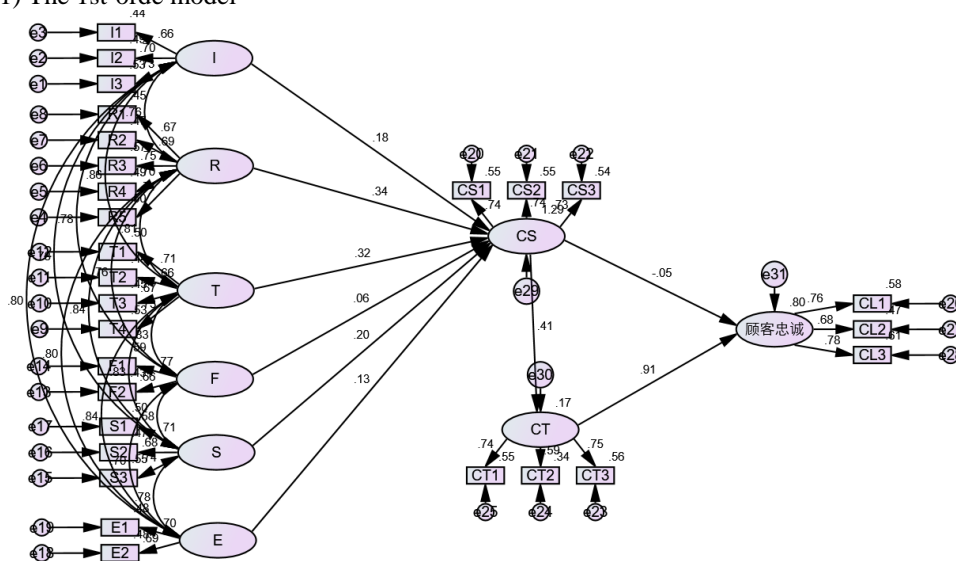(1) The 1st-orde model

Figure 2 The 1st-orde model of structural equation model

1480

Table 4 The evaluation index of 1st-orde model of structural equation model

evaluation index	CMIN/DF	P	GFI	AGFI	IFI	CFI	RMSEA
Fitting values	2.206	0.000	0.872	0.840	0.927	0.926	0.058

Table 5 Hypothesis testing

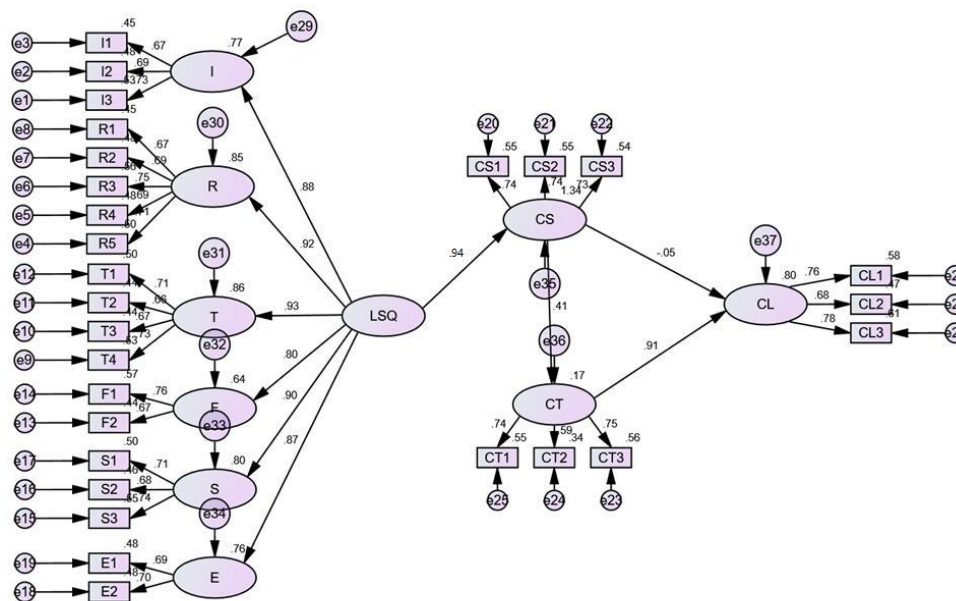| Hypothesis	Relationship	Estimate	C.R.	P	Hypothesis test results
H1a	I→CS	0.176	2.809	0.005	Pass
H1b	R→CS	0.345	4.329	***	pass
H1c	T→CS	0.320	2.866	0.004	pass
H1d	F→CS	0.060	0.688	0.492	not pass
H1e	S→CS	0.199	2.093	0.036	pass
H1f	E→CS	0.134	2.066	0.039	pass
H2	CS→CT	0.408	7.507	***	pass
H3	CS→CL	-0.046	-1.119	0.263	not pass
H4	CT→CL	0.911	10.018	***	pass

(2) The 2nd-orde model

Figure 3 The 2nd-orde model of structural equation model

Table 6 The evaluation index of 2nd-orde model of structural equation model

evaluation index	CMIN/DF	P	GFI	AGFI	IFI	CFI	RMSEA
fitting values	2.037	0.000	0.866	0.839	0.913	0.922	0.059

Table 7 Hypothesis testing

Hypothesis	Relationship	Estimate	C.R.	P	Hypothesis test results
H1	LSQ→CS	0.942	11.187	***	Pass
H2	CS→CT	0.410	7.527	***	pass
H3	CS→CL	-0.50	-1.213	0.225	not pass
H4	CT→CL	0.912	10.021	***	pass

4.3.3 Modified model result analysis

(1) The 1st-orde model

According to the model modification method provided by AMOS, and referring to the path analysis results in the previous section, the above two models were repeatedly modified, the path with insignificant P value in the model was removed, and a path was added according to the MI value. Finally, a first-order model with a good fitting degree was obtained, as shown in the figure below.
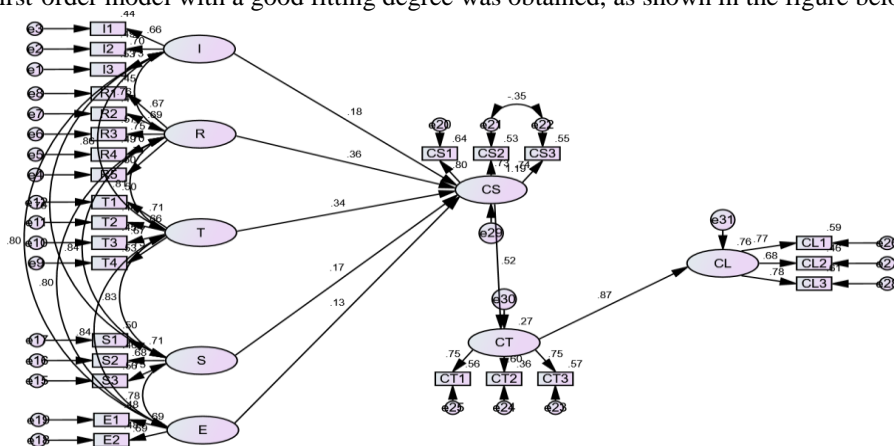

Figure 4 The 1st-orde model of structural equation model

Table 8 The evaluation index of 1st-orde model of structural equation model

evaluation index	CMIN/DF	P	GFI	AGFI	IFI	CFI	RMSEA
fitting values	1.902	0.000	0.885	0.857	0.940	0.939	0.055

Table 9 Hypothesis testing

Hypothesis	Relationship	Estimate	C.R.	P	Hypothesis test results
H1a	I→CS	0.180	3.137	0.002	pass
H1b	R→CS	0.359	6.488	***	pass
H1c	T→CS	0.339	4.383	***	pass
H1e	S→CS	0.168	2.982	0.003	pass
H1f	E→CS	0.133	2.061	0.039	pass
H2	CS→CT	0.524	8.699	***	pass
H4	CT→CL	0.871	10.740	***	pass

(2) The 2nd-orde model

The figure below is the modified second-order model diagram. The modified idea is to delete the path with insignificant P value in the model by referring to the path analysis results in the previous section. The model is shown below.
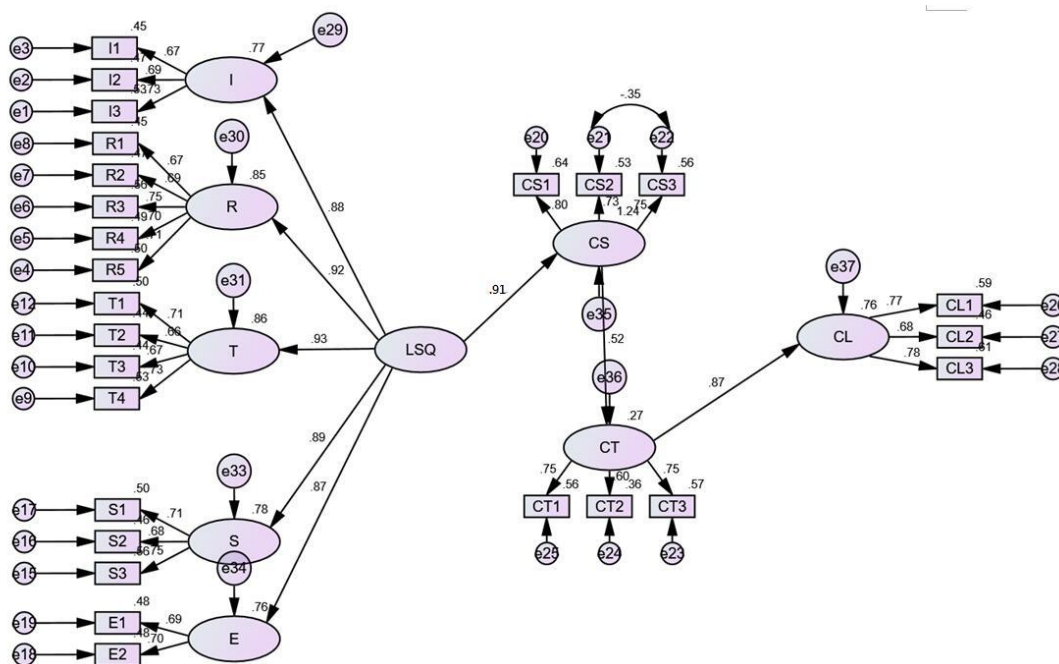

Figure 5 The 2nd-orde model of structural equation model

Table 10 The evaluation index of 1st-orde model of structural equation model

evaluation index	CMIN/DF	P	GFI	AGFI	IFI	CFI	RMSEA
Fitting values	1.864	0.000	0.885	0.860	0.940	0.940	0.054

Table 11 Hypothesis testing

Hypothesis	Relationship	Estimate	C.R.	P	Hypothesis test results
H1	LSQ→CS	0.913	11.663	***	pass
H3	CS→CT	0.524	8.711	***	pass
H4	CT→CL	0.871	10.742	***	pass

4.4 Discussion

(1) The conclusion of the empirical analysis showed that the effects of the logistics service quality of customer loyalty including information, reliability, timeliness, staff capacity, and the economy of five aspects, such as reliability and timeliness effect, on customer satisfaction are the largest, so in view of the self-built logistics system of the cross-border electronic business platform, improving the self-built logistics system should be strengthened with a supporting role in providing logistics services infrastructures such as optimizing the warehouse management system, reasonable planning, and warehouse layout. Moreover, with the aid of information technology, establishing an efficient logistics management system, real-time tracking of all shipping logistics information, reducing the goods damage and loss to improve the reliability and timeliness of distribution, and combining the optimization of distribution modes should be carried out to shorten the delivery time as much as possible. For the third party logistics of cross-border electronic commerce platform, a reliable third party logistics enterprises should be carefully chosen to establish a strategic partnership and the logistics company's business should have various considerable abilities according to the advantages and disadvantages of regional logistics. At the same time, for a strategic alliance, selecting multiple third-party logistics enterprises and establishing cooperative relations should work with the perfect business cohesion to ensure efficiency and reliability that help their own completed logistics work. In addition, in terms of the ability of employees, enterprises should also strengthen the business training and quality improvement of their logistics personnel. Both the high-level management personnel and delivery personnel should have strong business quality. Because, in the logistics work, the business person will directly contact customers, so, whether in the moral character, appearance, etiquette or business skills, the staff should be improved in all aspects.

(2) In terms of customer loyalty, the empirical study also found that customer satisfaction will not immediately affect customer loyalty between the need to establish a trust relationship with platform customers. So, the enterprise should try to satisfy customers with every consumer experience perception. Consumers experience unhappiness is likely to satisfy multiple experiences rupture, allowing consumers to immediately not trust the platform. Therefore, the cross-border electric business platform should form logistics, reliability, timeliness, economy, information, and employee ability in five aspects to ensure that consumption experience of each consumer is satisfied and the loyalty of consumers has gained in every shopping time. Only through this practice the cross-border e-commerce platforms can gain a sustainable user base and achieve long-term development.

5. Conclusion

(1) The relationship between logistics service quality and customer satisfaction

Through cross-border business six dimensions of logistics service quality and customer satisfaction, the conclusion showed that the structure of the equation and logistics service quality have significant effects on CS (customer satisfaction), assuming that the H1 parts were established, one of the five dimensions will have a positive effect on customer satisfaction, the path coefficient sorted by size are: reliability (0.359) and timeliness (0.339), the informational (0.180), staff ability (0.168), and economy (0.134), and flexibility is not a significant influence on customer satisfaction. From the perspective of

electric business platform for cross-border logistics services and quality, because the transport distance is farther and according to the survey, the results showed that the electrical business logistics of cross-border goods, mainly daily necessities of life, have more goods in small volume and more fragile, therefore, damages to the products such as package loss status can appear easily, combined with reverse logistics cost is higher. So, most consumers are not only concerned most on the reliability of the logistics but also they also hope to reduce transport time as short as possible because cross-border electricity generally involves in logistics transportation distance that is far away. Therefore, timeliness is also one of the main factors that consumers consider. Ranking the economy may be because of the current logistics price transparency, consumers can clearly know before shopping that they are required to bear the logistics cost and every cross-border electric business platform of logistics cost is roughly the same. So, in the process of phase compared to goods transportation reliability, the economy is also a positive impact on customer satisfaction but not the key consideration of consumers. The flexibility becomes involved in the distribution or return may be because the current level of logistics service has been very mature, the platform or logistics company will be based on the features of consumer goods and need to note the corresponding distribution way and maximize to meet the needs of the consumers. However, it is no need to consider consumers, the platform will help consumers or logistics company who have been thought through, so the flexibility can improve customer satisfaction that is no longer apparent.

(2) The relationship between customer satisfaction, customer loyalty and customer loyalty

Through the above study, the hypothesis H3; customer satisfaction and customer trust, and H4; customer trust and customer loyalty, have been inspected by the hypothesis H2; customer satisfaction and customer loyalty, and failed. Thus, it proves the positive effect between customer satisfaction and customer trust, of which the path coefficient of 0.526 shows that when the demands of consumers are satisfied, they can make the consumers trust the cross-border electric business platform. For the consumers in the cross-border electric business platform, the good products and services will let the consumer believes the cross-border electric business platform for consumer interests, resulting in a sense of trust for the platform. Moreover, the customer trust and customer loyalty also have a higher positive influence, of which the path coefficient of 0.871 shows that when consumers have trust in the cross-border electric business platform, it is likely to be the platform of loyal customers. Not only they can use the platform as their purchases in the same choice but more customers will recommend the platform to their friends. As the relationship between customer satisfaction and customer loyalty is not significant, then illustrating the cross-border electric business platform in providing customers with the satisfaction of goods and services also can not necessarily immediately turn consumers into its platform of loyal customers, especially when this kind of behavior appeared only once, or sometimes when the consumers feel dissatisfied, it will not make the consumers trust the platform. As a result, it is difficult for consumers to become loyal customers of the platform, so, from the relationship between customer satisfaction and customer loyalty, its significance is not passed.

6. Acknowledgements

7. References

Assael, H. (1984). *Consumer behavior and marketing action*. 3rd Edition. Belmont, CA: Wadsworth, Inc. Day, George S.

Asosheh, A., Nalchigar, S., & Jamporazmey, M. (2010). Information technology project evaluation: An integrated data envelopment analysis and balanced scorecard approach. *Expert Systems with Applications*, *37*(8), 5931-5938.

Cao, S. Y. (2014). Logistics service performance standard and evaluation. *Journal of Logistics technology, 21*(1), 2-24.

Carman, J. M. (1970). Correlates of brand loyalty: some positive results. *Journal of Marketing Research*, *7*(1), 67-76.

Gronoross, C. (1982). An applied service marketing theory. *European Journal of marketing, 16*(7), 30-41.

Guan, Z. (2016). An empirical study on customer loyalty based on motivation theory. *Journal of marketing, 9*(8), 27-28.

Gummesson, E. (2002). Practical value of adequate marketing management theory. *European journal of marketing*, *36*(3), 325-349.

Crosby, L. A., Evans, K. R., & Cowles, D. (1990). Relationship quality in services selling: an interpersonal influence perspective. *Journal of marketing*, *54*(3), 68-81.

Liu, R. H. & Yao, Z. W. (2015). Review of relationship quality research. *Journal of Foreign economy and management, 9*(8), 27-28.

Mentzer, J. T., Gomes, R. & Krapfel, R. E. (1989). Physical Distribution Service: Fundamental Marketing Concept. *Journal of the Academy of Marketing Science, 17*(4), 53-62.

Mentzer, T. J., Flint, J. D, & Kent, L. J. (1999). Developing a logistics service quality scale. *Journal of Business Logistics, 20*(1), 9-32.

Oliver, R. (1997*). Satisfaction: a behavioral perspective of the consumer*. New York: McGraw-Hill.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of marketing*, *49*(4), 41-50.

Parasuraman, A., Zeithaml, V. A. & Berry, L. L. (1988). SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12-40.

Perrault, W. D. & Russ, F. (1974). MSU business Physical Distribution Service: A Neglected Aspect. *Journal of Marketing Topics, 22*(2), 37-45.