Investigating Factors Affecting of Customers' Satisfaction and Loyalty Towards Express Logistics and Its Internet Plus in Sichuan, China

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Abstract

Purpose: This research aims to investigate the factors affecting customers' satisfaction and loyalty toward express logistics services in the context of "Internet Plus." The conceptual framework proposes seven variables, including the causal relationship between service quality, perceived value, brand image, customer relationship, trust, satisfaction, and loyalty. **Research design, data, and methodology:** This study is based on a literature review and questionnaire survey using a quantitative research method. A questionnaire was conducted on 500 respondents from Sichuan province in China, except Chengdu city. The sampling techniques are judgmental, quota and convenience sampling. Structural equation modeling (SEM) and confirmatory factor analysis (CFA) were used for data analysis, including model fit, reliability, and structure validity. **Results:** The results show that the five factors of service quality, perceived value, brand image, customer relationship, and trust have a significant effect on customer satisfaction of express delivery companies. Satisfaction and customer relationship significantly positive correlation with customer loyalty of express delivery companies. **Conclusions:** This study provides effective thinking inspiration and strong decision support for express logistics enterprises to improve the service level of express logistics in the operation and management process and further helps them enhance their overall competitiveness and achieve sustainable development.

Keywords : Loyalty, Satisfacation, Express Delivery, Logistics service, China

JEL Classification Code: E44, F31, F37, G15

1. Introduction

According to the data from the National Bureau of Statistics in 2021, the national e-commerce transactions amounted to RMB42.3 trillion, and the number of online shopping users reached 842 million. With the development of e-commerce and online shopping, the demand for express logistics is also growing rapidly (Xinhua, 2022).

Zhang (2006) thinks express service (Express service or Courier service) refers to the rapid collection, transportation, and delivery of documents, printed pieces, parcels, and other items, etc., the whole process of tracking and maintaining control of these items, while providing other services related to the above process, including customs clearance services.

Express delivery service is the product of economic development and service industry development. With the rise of the Internet, people's demand for online shopping, and the development of globalization, the use of express delivery is becoming increasingly frequent, not only in individuals but also in the trade of enterprises.

The statistics of express delivery business volume in Sichuan in the past seven years show that the volume of express delivery business in Sichuan has exceeded 100 million pieces. By city (state), Chengdu, Deyang, Meishan, Nanchong, and Suining rank in the top five regarding express delivery business volume in Sichuan Province. Chengdu, Deyang, Nanchong, Mianyang, and Meishan rank among the top five in the province in terms of business revenue.

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However, the rapid development of the express delivery business has also brought many new challenges. For example, the current level of express logistics services has not kept up with business development, and the number of complaints about express services has also shown an increasing trend, according to the circular of the State Post Office on the complaints of postal users in November 2021. In the number of complaints, express delivery delay, terminal delivery, express delivery loss, damage, illegal charges, etc., account for a large proportion (Arora et al., 2021).

The problem of express logistics service level is the pain point of the express logistics service industry. For express logistics enterprises, how to further improve the service level of express logistics and raise the service quality of express logistics to a new level to better serve consumers will not only become the key to improving their competitiveness and realizing their short-term development but also become the key to realize their long-term development in the future; At the same time, it will also play an important role in promoting the development of e-commerce and express delivery industry (Li et al., 2019).

This research mainly focuses on the investigation of 500 respondents from Sichuan province, who live outside Chengdu. The study is standing on the position of express logistics enterprises, taking the improvement of express logistics service level as the starting point, providing effective thinking inspiration and strong decision support for express logistics enterprises to improve their operation and management level, and further help them to enhance their overall competitiveness and achieve sustainable development.

2. Literature Review

2.1 Service Quality

Lalonde and Zinszer (1976) put forward the definition of logistics service, believing that the purpose of logistics service is to improve customer satisfaction, logistics service should be to meet customer needs, and customer satisfaction a performance measurement based on the cultural commitment of the organization. Oliver (1993) believes that the improvement of service quality can drive the improvement of customer satisfaction. Stank et al. (2003) subdivided the logistics service quality into operational quality and cost quality. Wang and Han (2017) believes that the quality of logistics service is a concept of all aspects of logistics. Mentzer et al. (1997) argue that express service quality is a concept that should include both physical logistics delivery service quality and customer marketing service quality. Courier service mainly refers to the rapid receipt of express delivery by courier companies to deliver

the corresponding goods or items to the designated place or the recipient (Xia, 2021).

He and Lu (2015), from the aspects of logistics ability, the depth of mining logistics service quality factors, and the influence of these factors on customer perception satisfaction, found that enterprise pre-sale after-sales service ability maximum influence customer loyalty, followed by the logistics ability and information technology level, the last is the matching ability and innovation ability. Yang and Wang (2015) argued that addressing the metrics of logistics services can increase consumers' motivation. Soltanpour et al. (2020) used a structural equation model to study the relationship between service quality and customer satisfaction. They believed that service quality could be used as a reference for measuring customer satisfaction. According to Fu (2022), service quality is key to customer satisfaction. The study argues that customer satisfaction is closely related to the quality of service experienced and increases as the quality of service improves. Thus, a hypothesis is stated:

H1: Service quality has a significant effect on satisfaction.

2.2 Perceived Value

David et al. (2010). Customer Perceived Value, abbreviated as CPV, refers to the overall evaluation that results from weighing the perceived and expected benefits of a product or service with the cost of investment required to purchase that product and service. The service management literature views customer satisfaction as a result of the customer's perception of the value received (Cronin et al., 2000). Wolfgang Ulaga (2001) argues that companies can develop corporate marketing from the perspective of creating value for customers, value for suppliers, and value for both buyers and sellers.

A study in healthcare found that perceived value positively affected patient satisfaction (Choi et al., 2004). Lenna and James (2019) mentioned that perceived value is a customer's value proposition regarding cognitive, emotional, normative, and behavioral aspects. Ravichandran et al. (2010) studied customer satisfaction with the SERVQUAL model in their research. He believed that improving the quality of perceived service could support the company to improve customer satisfaction and retain valuable customers.

Kim et al. (2005) suggested that users' high perceived value of mobile Internet products implies a high intention to use, and a low perceived value implies a low intention to use. Zhang (2020) empirically analyzed the willingness of live-streaming platform users based on perceived value. Li et al. (2020) proposed that improving customer satisfaction and optimizing customer experience are important means to build the competitiveness of enterprises and that satisfaction can positively impact customers' willingness to pay at a

premium. Therefore, it comes to a hypothesis:

H2: Perceived value has a significant effect on satisfaction.

2.3 Brand Image

James et al. (2019). A brand image helps customers identify products, services, and companies and distinguish them from competitors. Morrison (2001) noted that brand image is a means of communicating a product or service that effectively attracts consumers' attention. Usakli and Baloglu (2011). It is believed that the consistency between self-perception and brand personality will positively impact customers' repeat purchases or carry out word-of-mouth communication.

David et al. (2010) argues that when perceived value is high, customers believe that the cost they pay is worth it and will make repeat purchases and promote the product or service by word of mouth. (Kuenzel & Halliday, 2008). Jiang and Zhang (2015) pointed out that indicators such as express company image are more important for customer satisfaction. The brand image includes core elements that reflect the brand's core values and brand pursuit and is reflected in the brand's distinctive logo or service. Luo and Li (2020) verified that the high-quality image built by clusters can increase the purchase intention of visitors. Hence, a hypothesis is suggested:

H3: Brand image has a significant effect on satisfaction.

2.4 Customer Relationship Management

According to Schmid et al. (2000) and other scholars, customer relationship management is divided into three main processes: marketing, sales, and service (Jiang & Zhang, 2015). CRM is an advanced technology and management software set (Kannan & Rao, 2001). CRM is a customer-centered business strategy, the core of which is managing customer data to enhance the customer maintenance ability and cognition ability, and finally achieve the purpose of maximizing customer revenue. Jain and Singh (2002) argue that the primary goal of CRM is to maintain customer loyalty and place the customer at the center of the organization and marketing strategy- Trainor et al. (2014)-social CRM results from integrating social media and CRM. Long (2013) argue that it is relatively easy to retain existing customers instead of finding new ones.

Customer relationship management promotes long-term commitment, mutual trust, and customer cooperation (Bennett & Rundle-Thiele, 2004). Hong et al. (2018) suggested that customer relationship management effectively manages a good long-term relationship between oneself and the customer, thus increasing customer loyalty and deriving lifetime customer value.

Customer relationship management emphasizes communication with customers. Companies should establish a smooth two-way communication mechanism with customers, keep abreast of their suggestions on products or services, and reduce simple dumping and promotional methods, but find effective communication channels that meet the interests of both parties (Low & Anshari, 2017). Hu et al. (2020) believe that customer satisfaction is one of the key factors for the organization's success. Taking customers as the focus and paying attention to customer relationship management is an effective way for enterprises to improve their operation and management ability and quality management level. Accordingly, this research frames a hypothesis:

H4: Customer Relationship Management has a significant effect on satisfaction.

2.5 Trust

Consumers' trust in a service organization can generate commitment and future purchase intentions (Doney & Cannon, 1997). Trust is defined as a commitment by both parties to delegate certain elements from one party to another, trusting that the other party will act satisfactorily (Tweephoncharoen & Vongurai, 2020). With the development of e-commerce, trust is more online trust. Online trust includes customer trust in the merchant and trust in the platform on the platform website, and good trust perception is based on a good delivery experience based on uninterrupted interaction between the customer and the merchant (Hong & Cho, 2011). Chen et al. (2015) found that for consumer reconfiguration behavior to be sustainable in the O2O context, customers must maintain and continuously evaluate their trust in online merchants. Consequently, a hypothesis is pointed:

H5: Trust has a significant effect on satisfaction.

2.6 Satisfaction

Customer satisfaction is a topic that has been discussed previously in marketing theory and practice. Over the years, many scholars have greatly contributed to it, forming a series of theories and methods.

Howard and Sheth (1969) stated that customer satisfaction is the customer is more satisfied with the purchase behavior when the customer perceives that the reward is greater than the payoff in generating the purchase behavior. Zeng (2010) states that customer loyalty is a hobby that develops over time as a consumer, on the premise that the customer is satisfied with the quality of the company's services.

Gusta (2015) study concludes that overall satisfaction strongly affects customer loyalty intentions for many types of products and services. Yan (2019) believes customer

satisfaction is the gap between customer perception and expectations. The difference is that regular enterprises obtain customer satisfaction, while with negative results, it is impossible to obtain customer satisfaction.

Chen (2015) analyzed the formation of customer loyalty in e-commerce and showed that customer satisfaction affects the corresponding loyalty. The effect is persistent, with customer satisfaction after the first purchase having a long-term effect on subsequent loyalty. Thereby, a hypothesis is developed based on previous literatures:

H6: Satisfaction has a significant effect on loyalty.

2.7 Loyalty

Lu (2005) believes loyalty includes a positive attitude and repeated purchases. Customer loyalty is the degree of customer loyalty. Under the comprehensive influence of various factors, customers prefer an enterprise's products or services and form a purchase preference. It is mainly manifested as repeated purchases, the e-commerce site as the first choice, the e-commerce site in mind, and willingness to recommend to the people around.

Luarn and Lin (2003) compared the traditional environment with the e-commerce environment and concluded that customer loyalty is difficult to cultivate in the e-commerce environment. Reichheld and Schefter (2000) divided customer loyalty into four dimensions: affordability, purchase of other products of the same brand, willingness to repurchase, and whether to recommend. Ribbink et al. (2004) believe customer loyalty in the network environment is valuable to the enterprise. Customer loyalty is usually formed because customers are satisfied with the service they enjoy, and customer loyalty is affected by customer satisfaction and customer relationship management. Chen (2015) and others used dynamic thinking to study the formation process of customer loyalty in the e-commerce environment, which shows that customer loyalty is affected by customer satisfaction.

In discussing the relationship between service marketing and customer relationship management in enterprises, Zheng and Liu (2020) mentioned that the most important point in customer relationship management is to cultivate customer loyalty by satisfying customer needs, which will improve the level of service marketing and bring more benefits to enterprises. Subsequently, a hypothesis is set:

H7: Customer relationship management has a significant effect on customer loyalty.

3. Research Methods and Materials

3.1 Research Framework

The theoretical foundation of this study was meticulously developed by incorporating existing theories and previous empirical studies. By integrating the findings of prior research, particularly in the areas of customer satisfaction and logistics service quality, we have successfully constructed four theoretical models. These models were then combined to form the research framework for this study. For instance, Bahri-Ammari and Soliman (2016) investigated the impact of CRM implementation on profitability within the pharmaceutical industry. Ha and Janda (2008) empirically tested a customer satisfaction model specifically designed for e-services. Another study conducted by Jorge et al. (2020) explored the factors that influence satisfaction and loyalty in online group purchasing. Additionally, Lin and Zhao (2020) examined the impact of e-commerce logistics service quality on customer satisfaction. The conceptual framework of this study is visually represented in Figure 1.
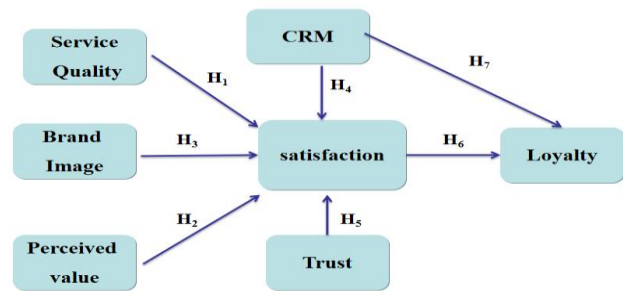

Figure 1: Conceptual Framework

H1: Service quality has a significant effect on satisfaction.
H2: Perceived value has a significant effect on satisfaction.
H3: Brand image has a significant effect on satisfaction.
H4: Customer Relationship Management has a significant effect on satisfaction.
H5: Trust has a significant effect on satisfaction.
H6: Satisfaction has a significant effect on loyalty.
H7: Customer relationship management has a significant effect on customer loyalty.

3.2 Research Methodology

The researchers used a random sampling method to distribute the questionnaire to a target group, Chengdu courier consumers, through an online or paper-based questionnaire. The data was collected and organized to analyze the key factors affecting logistics service satisfaction and loyalty. The questionnaire included two screening questions, seven

demographic questions, and 29 measurement items.

First, a Likert scale was used to measure the seven proposed variables from very dissatisfied (1) to very satisfied (5) to analyze all seven hypotheses. Demographic questions included background tests of gender, age, education level, and time spent using courier services.

The assessment of item-objective congruence (IOC) revealed that all scale items achieved a score of 0.6 or higher, as determined by three expert raters. Subsequently, the pilot test conducted with a sample size of 30 participants demonstrated robust internal consistency for all items, with Cronbach's alpha coefficients exceeding or equaling 0.7 (Sarmento & Costa, 2016).

Furthermore, the researchers analyzed the collected data through Jamov, AMOS 26.0, and then factor analysis (CFA) was used to test its convergence, accuracy, etc. Finally, the researchers applied structural equation modeling (SEM) to examine the effects of the variables.

3.3 Population and Sample Size

The target population can be defined as the specific population that the researcher intends to study, interpreting the population as the object that the researcher intends to analyze (Stangor, 2014). In this paper, the target population is the consumers of courier services and employees of logistics companies outside Chengdu, Sichuan province. The sample size of the structural equation model suggested that at least 200 respondents should participate in the study (Kline, 2011). The survey was distributed to 550 respondents. After data screening, 500 respondents were used in this study.

3.4 Sampling Technique

The researchers used judgmental sampling to select the top three logistics companies, SF Express Holdings (SZ002352), JD Logistics (02618), and YTO Express (SH600233) in the postal and express industry in terms of reputation value in Chengdu in 2021. Then, quota sampling was used, and the quotas are shown in Table 1. The researcher used a convenience sampling method to distribute the questionnaire online and offline by directly hand-in paper and email.

Table 1: Sample Units and Sample Size

Names of enterprises	The Number of Active in Chengdu (thousand)	Proportional Sample Size
SF	6957	136
JD	8493	167
YTO	10019	197
Total	25469	500

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

The demographic target is 500 participants; the conclusions are shown in Table 2. Male respondents accounted for 41%, and female respondents accounted for 59%. Most interviewees are 25-34 years old, accounting for 53.8%; Secondly, about 26.6% are aged 19-24, about 13% are aged 35-44, and about 6.6% are others. Regarding education level, 65.4% are university students, 7.2% are master's students, and 27.4% are in high school or below. The percentage of respondents in intelligent manufacturing, public utilities, transportation, and others is 10.8%, 4.6%, 6.6%, 20.6%, and 57.4%, respectively. The respondents' monthly online shopping spending is above 1000 yuan, with the average monthly online shopping number mostly above five times. Most of the respondents' monthly online shopping are more than 1000-yuan, accounting for 73.8%; the average number of respondents is four times, accounting for 84%

Table 2: Demographic Profile

Demographic and General Data (N=500)		Frequency	Percentage
Gender	Male	205	41
	Female	295	59
Age	Less than 24 years old (inclusive)	133	26.6
	25-34years old	269	53.8
	35-44 years old	65	13
	More than 45 years old	33	6.6
Education	Below high school	66	13.2
	senior high school student	71	14.2
	undergraduate	327	65.4
	Master degree or above	36	7.2
Industry	Smart manufacturing	54	10.8
	Public institutions	23	4.6
	Internet	33	6.6
	transportation industry	103	20.6
	other	287	57.4
Time to use express service	Less than 3 years (inclusive)	45	9
	3-5 years (inclusive)	183	36.6
	More than 5 years	272	54.4
Consumer spending on online shopping	Below 500 yuan (inclusive)	61	12.2
	501-1000 yuan	70	14
	1001-1500	69	13.8
	1501-2000	209	41.8
	More than 2001 yuan	91	18.2
Number of online purchases	Less than 3 (inclusive)	80	16
	4-5 (inclusive)	116	23.2

Demographic and General Data (N=500)		Frequency	Percentage
	6-7 (inclusive)	135	27
	8 or more	169	33.8

Source: Constructed by author

4.2 Confirmatory Factor Analysis (CFA)

In this study, the researchers used Cronbach's Alpha for variable reliability analysis and assessed the reliability and validity of each variable for 500 respondents. Construct validity focuses on ensuring that the tools used are measured and the structure intended to be measured in the study. The statistical program analyzes the Cronbach's Alpha coefficient

results for each parameter. as shown in Table 3. The Cronbach's Alpha values of independent variables are 0.820, 0.739, 0.801, 0.724, 0.740, 0.714, and dependent variables are 0.765, respectively. According to the range where the Alpha coefficient is greater than 0.7, the results highly confirm the construct's internal consistency and the questionnaire's reliability. Convergent validity gauges the interrelationship among variables within a shared framework (Marakarkandy et al., 2017). Fornell and Larcker (1981) introduced three measurement criteria for assessing convergent validity: factor loadings surpassing > 0.5, composite reliability (CR) exceeding > 0.7, and average variance extracted (AVE) surpassing > 0.4.

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Service Quality (SQ)	Lehtinen and Lehtinen (1982)	6	0.820	0.556-0.743	0.824	0.441
Perceived Value (PV)	Zeithaml et al. (2013)	4	0.739	0.576-0.692	0.740	0.417
Brand Image (BI)	Morrison (2001)	4	0.801	0.695-0.729	0.801	0.502
Customer Relationship Management (CRM)	Schmidt et al. (2000)	3	0.724	0.606-0.783	0.723	0.469
Trust (T)	Hong and Cho (2011)	4	0.740	0.608-0.710	0.743	0.420
Customer Satisfaction (CS)	Howard and Sheth (1969)	3	0.714	0.636-0.702	0.715	0.455
Customer Loyalty (CL)	Reichheld and Schefter (2000)	5	0.765	0.604-0.648	0.768	0.398

The results presented in Table 4 demonstrate that all relevant thresholds for the absolute fit indicators, including CMIN/DF, GFI, AGFI, and RMSEA, as well as the incremental fit measurements such as CFI, NFI, and TLI, meet the required criteria. Consequently, these goodness-of-fit measurements, employed in the confirmatory factor analysis (CFA) examination, collectively indicate an acceptable level of fit.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	1.233
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.943
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.930
NFI	≥ 0.80 (Wu & Wang, 2006)	0.910
CFI	≥ 0.80 (Bentler, 1990)	0.982
TLI	≥ 0.80 (Sharma et al., 2005)	0.979
RMSEA	< 0.08 (Pedroso et al., 2016)	0.022
Model Summary		**In harmony with empirical data**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

To establish discriminant validity, the approach suggested by Fornell and Larcker (1981) was employed, involving the calculation of the square root of the Average Variance Extracted (AVE). The study's findings reveal that the derived discriminant validity values exceed all inter-construct/factor

correlations, as demonstrated in Table 5, robustly confirming its existence and endorsement. Importantly, all estimates are statistically significant. The convergent validity of the study is also depicted in Table 5.

Table 5: Discriminant Validity

	SQ	PV	BI	CRM	T	CS	CL
SQ	**0.664**						
PV	0.406	**0.643**					
BI	0.330	0.372	**0.708**				
CRM	0.190	0.299	0.387	**0.684**			
T	0.401	0.393	0.368	0.390	**0.648**		
CS	0.448	0.392	0.441	0.392	0.471	**0.674**	
CL	0.365	0.446	0.451	0.443	0.407	0.589	**0.630**

Note: The diagonally listed value is the AVE square roots of the variables
Source: Created by the author.

4.3 Structural Equation Model (SEM)

The utilization of Structural Equation Modeling (SEM) analysis, in conjunction with the principles of multivariate analysis, provides a means to explore causality and relationships. SEM enables the examination of causal relationships between variables (Wanichbancha, 2014). In this study, the causal relationships or pathways of effects were examined using AMOS 26 software, and the refined models were analyzed (Sumsiripong, 2016). The SEM approach is particularly advantageous as it allows for the

simultaneous examination of multiple relationships between variables, whereas other statistical techniques only assess individual relationships within each structure (Hossain et al., 2021). The fitting index results fit well: CMIN/DF =2.571, GFI =0.867, AGFI = 0.844, NFI = 0.806, CFI = 0.871, TLI = 0.858, RMSEA = 0.056. The fitness of the structural model is confirmed.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable	Statistical Values
CMIN/DF	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	2.571
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.867
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.844
NFI	≥ 0.80 (Wu & Wang, 2006)	0.806
CFI	≥ 0.80 (Bentler, 1990)	0.871
TLI	≥ 0.80 (Sharma et al., 2005)	0.858
RMSEA	< 0.08 (Pedroso et al., 2016)	0.056
Model Summary		**In harmony with empirical data**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

4.4 Research Hypothesis Testing Result

The research model calculates the significance of each variable based on its regression weight and R2 variance. The results in Table 7. assume significant support for all hypotheses at p=0.05. CS has the greatest impact on CL, with a result of 0.708. T has great impact on CS (β = 0.283), SQ (β = 0.241), BI (β = 0.227), PV (β= 0.187), CRM (β= 0.199).

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: SQ→CS	0.241	5.595*	Supported
H2: PV→CS	0.187	4.217*	Supported
H3: BI→CS	0.227	5.564*	Supported
H4: CRM→CS	0.199	4.099*	Supported
H5: T→CS	0.283	5.916*	Supported
H6: CS →CL	0.708	7.559*	Supported
H7: CRM →CL	0.145	3.055*	Supported

Note: * p<0.05
Source: Created by the author

The results in Table 7 can be refined: **H1** proves that the quality of express service is one of the key drivers to improving express satisfaction, revealing that the standard coefficient of the structural path is 0.241. Fu (2022) believes that service quality is key to customer satisfaction. He believes that customer satisfaction is closely related to the quality of service experienced and increases with service

quality improvement.

H2 results support that perceived value has a significant impact on satisfaction. Perceived value positively impacts satisfaction (Choi et al., 2004). The standard coefficient value represented is 0.187.

H3 reflects that brand image has a significant impact on satisfaction. Just as Luo and Li (2020) have verified that high-quality images created by clusters can improve tourists' willingness to purchase, a good brand image can improve customer satisfaction, resulting in a standard coefficient value of 0.227.

H4 assumes that CRM has a significant impact on satisfaction, representing a standard coefficient value of 0.199 (Bennett & Rundle-Thiele, 2004), and others have confirmed that customer relationship management promotes the establishment of long-term commitment, mutual trust, and cooperative relationships with customers, which is conducive to improving customer satisfaction.

H5 results suggest that trust (T) significantly impacts satisfaction. The standard coefficient is 0.283. According to Chen et al. (2015). customers must maintain and continuously evaluate their trust in online merchants before they are satisfied, resulting in sustainable restructuring behavior.

H6 analysis results support the hypothesis that customer satisfaction significantly impacts customer loyalty. The standard coefficient represented is 0.708. The discussion agreed with Chen (2015) that customer satisfaction affects customer loyalty in the context of e-commerce, and the impact is continuous.

H7 proves the positive influence factor of customer relationship management (CRM) on loyalty, revealing that the standard coefficient of its relationship is 0.145. Hong et al. (2018) confirmed that customer relationship management effectively manages the long-term good relationship between himself and his customers to improve customer loyalty and obtain lifetime customer value.

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

This paper starts with the customer satisfaction and loyalty of express delivery enterprises and probes into the theory and method of customer satisfaction and loyalty evaluation of express delivery enterprises. Based on theoretical research and literature review, using the SERVQUAL model and hierarchical structure method and combining with the characteristics of express delivery enterprises, the evaluation system of satisfaction and loyalty

of express delivery enterprises is designed.

In the data collection method, this paper uses the method of a customer questionnaire to obtain initial data. This method not only ensures the rapidity and timeliness of customer evaluation information, but also, the data obtained represent the most direct opinions of customers, making the research results more credible.

The main content of this chapter is to analyze the reliability and validity of the data, to carry out a confirmatory factor analysis of multiple dimensions and the whole, which affect the satisfaction and loyalty of express logistics services, and finally, to use the structural equation model to carry out fitting degree analysis and to verify whether the hypothesis is feasible and effective according to the fitting results. Through the result analysis, it is found that all five dimensions have a positive effect on improving customer satisfaction, and all two dimensions have a positive effect on customer loyalty. Among them, customer satisfaction has the highest impact on customer loyalty, followed by customer trust in merchants, brand image of merchants, express service quality, and customer relationship management and perceived value. At the same time, it puts forward some suggestions to improve the satisfaction and loyalty of express logistics enterprises.

5.2 Recommendation

Under the favorable development background of online shopping, the only way to effectively deal with internal and external competition, expand the market share of the enterprise, and increase the influence of the enterprise is to enhance the satisfaction of consumers to the express delivery enterprise, maintain and develop the customer base and cultivate customer loyalty.

First, SQ attaches importance to creating unique service quality online shopping. Service quality is the key point of contact between customers and express delivery companies in online shopping. The service quality of express delivery companies not only directly and positively affects customer loyalty but also can affect customer loyalty through the indirect transmission mechanism of customer satisfaction. After many investigations, it was found that, in addition to the scientific and rational arrangement of network layout, it is also possible to create intelligent express delivery cabinets using technological empowerment.

She was second, using information technology to provide customers with timely, accurate, and effective information in the service process, including the processing progress of orders, the delivery of orders, the situation of goods in transit, etc., to facilitate customers to pay attention to and view relevant information, thus affecting the shopping experience and improving the accuracy of customers' expected value.

Third, pay attention to customer satisfaction and improve customer loyalty. We should also pay attention to the overall satisfaction of our customers. In addition, under the background of improving the quality of consumption, consumers' expectations for services are also rising, which also indicates that express delivery enterprises should not only pay attention to the timeliness and convenience of express delivery that can significantly affect customer satisfaction but also pay attention to the return and replacement service process. They should stick to service quality throughout the process and strictly demand higher service standards. At the same time, when service errors occur, they should show their willingness to handle errors and their determination to service remedy promptly.

Fourth, improve consumers' trust in enterprises. In addition to improving professional standards, enterprises also need to urge express delivery practitioners to establish a "customer-centric" service attitude to improve consumers' trust in the enterprise.

Fifth, focus on customers, build good and sustainable customer relationships and improve customer loyalty. Customer satisfaction positively affects customer loyalty, and part of the effect of customer management on customer loyalty is achieved through the transmission mechanism of customer satisfaction. A good express service experience is the "last mile" that affects the online customer service experience for online shopping merchants or platforms, and this influence will be transmitted to express companies themselves.

Sixth, strengthen the corporate brand effect. Strengthen the information construction and guarantee the information channel. In the information age, enterprises should strengthen information construction, establish smooth logistics information channels for commodities, and realize the collaborative connection of all nodes in the process.

5.3 Limitation and Further Study

This study explores the influencing factors of customer satisfaction and loyalty towards express delivery enterprises through theoretical analysis, questionnaire design, and data processing. It draws some conclusions with certain reference values. Targeted suggestions are also proposed for express delivery enterprises, but more research is needed.

The research model needs to be developed. In online shopping, consumers' perception of express service can not only directly affect consumers' perception of express companies and rise to online shopping platforms and merchants. Therefore, in the subsequent research, consumers' overall perception of online shopping merchants and online shopping platforms can be incorporated into the research model to explore the research depth.

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