The Effect of Service Quality on Customer Loyalty in the Fast-Food Industry: A Perspective of University Students in Chengdu City, Sichuan Province, China

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This Independent Study has been Approved as a Partial Fulfillment of the Requirements for the Degree of Master of Business Administration

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Title:	The Effect of Service Quality on Customer Loyalty in the Fast-Food Industry: A Perspective of University Students in Chengdu City, Sichuan Province, China
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ABSTRACT

The objectives of the study were as follows: 1) to explore the level of service quality and customer loyalty in the fast food industry from the perspective of university students in Chengdu, Sichuan Province; and 2) to invesigate the impact of service quality on customer loyalty in the fast food industry from the perspective of university students in Chengdu, Sichuan Province. The study adopted a quantitative research methodology and collected data from 400 western fast food customers, including university students patronizing western fast food in Chengdu. Data analysis included descriptive statistical analyses including frequency, percentage, mean, and standard deviation, as well as reliability and validity analyses, correlation analysis, and linear regression analysis.

The results of the study showed that 1) The dimension with the highest score in the level of service quality was convenience of opening hours, which indicates a high level of satisfaction. The tangibility, reliability and assurance dimensions consistently scored high, while responsiveness and empathy showed some variability. In terms of customer loyalty, preference for promotional activities was the highest scoring dimension, indicating a preference for stickiness; 2) The study also found that tangibles, assurance and empathy had a positive impact on customer loyalty in the western fast food industry in Chengdu, Sichuan Province, China. However, reliability and responsiveness did not show significant effects. Although students showed trust in fast food quality, word-of-mouth promotion could be improved to increase loyalty. Despite promotional offers, students tend to stay loyal to their favorite fast food brands for a long time. The fast food industry has a high degree of stability and continuity in the

university student market. However, this result may have been influenced by factors such as changes in students' life stages and adjustments in their eating habits, which led to changes in their attention and support for fast food.

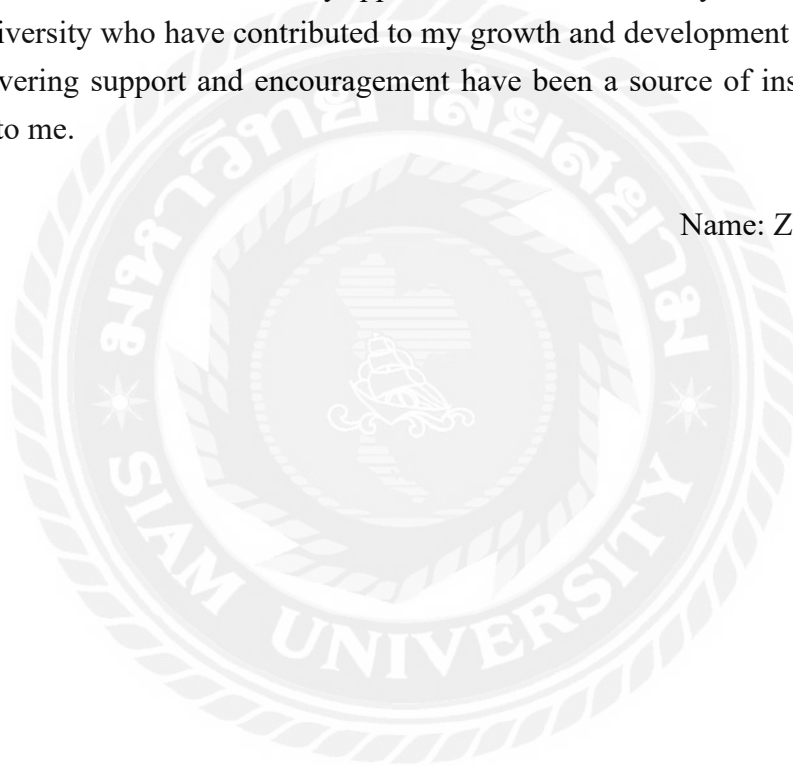**Keywords:** service quality，customer loyalty，fast food

ACKNOWLEDGEMENT

Declaration

I, Zhang Yuqi, hereby certify that the work embodied in this independent study entitled "The Effect of Service Quality on Customer Loyalty in the Fast-Food Industry: A Perspective of University Students in Chengdu City, Sichuan Province, China" is result of original research and has not been submitted for a higher degree to any other university or institution.

(Zhang Yuqi)
Sep 20, 2024

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Chapter 1 Introduction

1.1 Background of the Study

Globally, the fast food industry occupies an important economic position with its huge size and market share. According to Euromonitor, an international market research firm, the global fast food industry reached $1.1 trillion in 2019 and is expected to reach $1.37 trillion in 2023. Of this, the Asia-Pacific region holds the largest market share at around 40%. Moreover, data from Germany's Statista business data platform shows that the total revenue of the global food and beverage industry in 2019 will be around USD 3.7 trillion, of which the fast food industry accounts for around 30% of the market share. In China, according to the "China Fast Food Industry Scale and Market Landscape Analysis Report 2022", the market size of China's fast food industry was approximately RMB 1.7 trillion in 2019, with a CAGR of 10.4% between 2016 and 2019, exceeding the average growth rate of China's food and beverage industry.The market size of China's fast food industry reached RMB 1.1 trillion in 2021, with a year-on-year growth of 17.78%, and the market size of China's fast food industry is expected to reach RMB 1.8 trillion in 2025.

The fast food industry has a wide range of consumer groups covering individuals of different age groups, occupations and income levels. Young people and family consumers are the main consumer groups. There are differences in consumers' needs and preferences for fast food, including taste, price, service and environment. In particular, middle-class consumers, who usually do not purchase too many luxury goods but have a steady demand for mid-range restaurants, pursue quality of life but lack sufficient time, and therefore prefer high-quality fast food brands and foods. The income of middle-class consumers accounts for 47.1% of the total income of the fast food industry (Li , 2023).

With the deepening of globalization, Western-style fast food, as an important carrier of Western culture, has taken root and developed rapidly in the Chinese market. Since the 1980s and 1990s when KFC and McDonald's entered the Chinese market one after another, western-style fast food has rapidly won the favor of the majority of consumers with its novel consumption mode, fast service and unique taste. The rise of Western-style fast food has not only changed the eating habits of Chinese people, but also promoted the diversified development of the catering market (Geng , 2020).

1.2 Problems of the Study

The competitive landscape of the fast food industry is characterized by a large number of brands and intense competition. Brands compete fiercely with each other in terms of product innovation and diversification, brand image and marketing strategies, and localization and internationalization strategies. Western fast food brands such as McDonald's, KFC, and Pizza Hut have expanded their market share by continuously innovating their products and marketing strategies to improve their brand image and service quality.(Zhou , 2018).

In today's increasingly competitive market, the issue of consumer loyalty to fast food is becoming more and more prominent. According to some studies, Chinese consumers are not very loyal to fast food, and they are more willing to try new brands and flavors. Therefore, how to improve consumer loyalty to fast food has become an important challenge for the fast food industry.

Service quality is considered to be one of the most important factors influencing consumer loyalty. High-quality service can enhance consumers' satisfaction and increase their loyalty. However, for the fast food industry, the connotation and extension of service quality are still vague and need to be further studied and explored. This study attempts to explore the impact of fast food service quality on consumer loyalty through empirical research, with a view to providing fast food companies with strategic suggestions to improve consumer loyalty.

1.3 Objectives of the Study

1. To explore the service quality level and customer loyalty in the fast food industry from the perspective of college students in Chengdu, Sichuan Province.

2. To investigate the impact of service quality on customer loyalty in fast food industry from the perspective of college students in Chengdu, Sichuan Province.

1.4 Scope of the Study

The study, "The Effect of Service Quality on Customer Loyalty in the Fast-Food Industry: A Perspective of University Students in Chengdu City, Sichuan Province, China", used a questionnaire to collect data from a sample of 400 respondents during the period from January and February 2024, which included fast food customers in Chengdu City, Sichuan Province, China, who had patronized fast food restaurants,

including McDonald's, KFC, Pizza Hut, Burger King, and other well-known brands, during the past six months.

1.5 Significance of the Study

This study focuses on exploring the service quality that affects Chinese customers' loyalty to fast food. By drawing on the well-established SERVQUAL service quality model, this study uses a questionnaire survey of European and American Western fast food brands such as McDonald's, KFC, Pizza Hut, and Burger King, to analyze the relationship between fast food service quality and customer loyalty, as well as the role of service quality in customer loyalty. The practical exploration of this study helps fast food brands to improve service quality in various aspects, enhance customer stickiness and adhesion, and provide service suggestions to improve customer loyalty in order to adapt to the changing market environment and consumer demand.

1. This study extends the application of the theory of the relationship between service quality and customer loyalty to the Western fast food industry. By utilizing the SERVQUAL service quality model, this study aims to apply a well-established framework to assess and understand the service quality of Western fast food. This approach helps to standardize the assessment and comparison of service quality across different brands.

2. This study provides strategic recommendations for western fast food brands to improve their service quality, which will help them increase customer loyalty in a competitive market. By investigating the factors that influence consumer loyalty in the local fast food industry, this study seeks to identify and address consumer preferences and challenges, an insight that will be valuable to international fast food brands operating in the region.

3. This study aims to provide a comprehensive understanding of the local fast food industry, particularly in Chengdu, Sichuan Province, China. This understanding includes the economic significance, market size and consumer dynamics of the local fast food industry.

Chapter 2 Literature Review

2.1 Introduction

The purpose of this study is to investigate the impact of service quality on customer loyalty in the fast food industry, with college students in Chengdu City, Sichuan Province, as the research subjucts. In Chapter 2, this study provides a review of related literature, including the concept of service quality, the concept of customer loyalty, the concept of Western fast food, and the theory of SERVQUAL.

In the conceptual review of service quality, this study describes the importance of service quality and the SERVQUAL scale as a valid tool to measure service quality. In the conceptual review of customer loyalty, the definition of customer loyalty and its importance are described. In the theoretical part of SERVQUAL, the development of SERVQUAL scale, its five dimensions, and its application are presented.

Through literature review, this study concludes that service quality is an important factor affecting customer loyalty and SERVQUAL scale is a reliable tool to measure service quality. Therefore, this study uses SERVQUAL scale to measure service quality in fast food industry and analyze the impact of service quality on customer loyalty. The results of the study will help the fast food industry to improve the service quality and hence customer loyalty.

2.2 Service Quality

The American Marketing Association (AMA) was the first to define service as a type of activity in the economic sense that can lead customers to obtain satisfaction and benefits from the purchase of products or paid activities (AMA, 1960). In the early 1980s, Christian Gronroos, a Nordic scholar, for the first time combined the concept of service problem and service quality, and took the customer's expectation of service quality and perceived service quality as a comparison of service quality. and that the level of service quality depends on the customer's expectation of product service level, perceived service level in the unilateral judgment. And with the comparison between service levels, service quality is divided into two parts: technical quality and functional quality, Gronroos (1984) believed that the technical quality is the process of service customers get a certain functional quality, while functional quality is how to make customers accept the service.

SERVQUAL is an acronym for service quality, first proposed by the American marketing scientist Parasuraman in 1988. It first appeared in an article co-authored by

Parasuraman, Zeithaml and Berry entitled "SERVQUAL: A Multidimensional Approach to Customer Perceived Quality of Service"（Parasuraman, Zeithaml & Berry, 1988）.

Parasuraman, Zeithaml and Berry proposed that service quality is the result of the perceived quality of the product at the time of purchase multiplied by the perceived quality of the product before the purchase. Subsequently, Parasuraman, Zeithaml and Berry proposed a service quality evaluation system in which the service quality difference model is theoretically the core of the system - the difference between the level of service actually experienced by the respondent and the level of service expected by the respondent. This model is also known as the 'expectation-perception' model. In this model, customer expectations are a prerequisite for companies to provide quality services, and the focus is on exceeding expectations. The model is Service Quality Score = Actual Perceived Score - Expected Score (Parasuraman, Zeithaml & Berry, 1988).

SERVQUAL divides service quality into five dimensions: Tangibles, Reliability, Responsiveness, Assurance and Empathy. Each dimension is further subdivided into a number of questions, and users are then asked to rate the expected value, actual perceived value and minimum acceptable value of each question in a questionnaire. The service quality score is calculated from the questionnaire survey, customer ratings and comprehensive calculations (Parasuraman, Zeithaml & Berry, 1991).

This model has been widely accepted and used by managers and academics for decades. The model is based on the theory of differences, i.e. the difference between customers' expectations of service quality and the service they actually receive from the service organisation. Studies have shown that SERVQUAL is suitable for measuring system service quality and is also an effective tool for evaluating service quality and identifying actions to improve service quality.

2.3 Customer Loyalty

"Loyalty" is a humanistic concept with a long history, referring to people's dedication to people, groups and causes, to their fidelity and reliability, and emphasizing the continuity of a particular behavior. In business, the concept of loyalty can be traced back to research conducted in the 1920s. Since then, scholars have explored a great deal of customer loyalty, which, in general, refers to the degree of customer loyalty to a particular brand or service provider, which can be measured by customers' repeat purchase behavior, positive word-of-mouth, and referral behavior. (Dong & Dong, 2006)

The concept of customer loyalty in an academic context can be classified into three principal categories:

1. Behavioural theory

Behavioural theory defines customer loyalty primarily from a behavioural standpoint, conceptualising customer loyalty as a form of customer commitment to repeat purchases of products or services. This form of loyalty can be quantified through the use of indicators such as purchase share and purchase frequency. Notable examples of this approach include the theoretical model proposed by Jacoby and Chestnut (1978), who emphasised the significance of repeat purchasing behaviour as an external indicator of loyalty. Tucker and Lawrence (1982) conducted further research into the relationship between behavioural loyalty and market competition. In their 1994 study, Blattberg and Sen emphasised the role of purchase frequency as a measure of behavioural loyalty in predicting market share.

2. Affective theory

Affective theory defines customer loyalty from an affective perspective as a preference or attachment to products and services. In their Theory of Planned Behavior, Ajzen and Fishbein (1980) elucidated the pivotal function of attitudes in purchase intentions. Dick and Basu (1994) additionally proposed a comprehensive model of attitudinal and behavioural loyalty, indicating that emotions constitute a principal driver of loyalty.

3. Comprehensive theory

Comprehensive theory of customer loyalty posits that it should be comprised of two dimensions: emotional attachment and behavioural orientation. In 1999, Oliver proposed the "loyalty ladder model," which divides customer loyalty into three stages: cognitive loyalty, emotional loyalty, and behavioral loyalty. Griffin's (2002) research indicates that only repeat purchases with a high degree of emotional dependence can be defined as true loyalty.

The characteristics of customer loyalty can be defined as follows:

1. A high level of attachment and trust is exhibited by customers in the company's products and services, which is a fundamental aspect of loyalty (Reichheld & Schefter, 2000). Such trust is founded upon the provision of consistently satisfactory service quality and brand image.

2. The tendency to make repeat purchases and to recommend the company's products and services to others is a further indicator of customer loyalty. Gremler and Brown (1996) put forth the proposition that word-of-mouth recommendations constitute a significant behavioural indicator of customer loyalty.

3. Loyal customers are typically resistant to the influence of competitors' promotional activities. As posited by Zeithaml et al. (1996), a high evaluation of service quality can serve to reduce the likelihood of customers switching brands due to promotions.

4. The demonstration of continued attention and support for the company and its products represents a long-term manifestation of customer loyalty. Morgan and Hunt (1994) elucidated the function of sustained attention in customer relationships through the commitment-trust theory.

The following factors have been identified as affecting customer loyalty:

In recent years, scholars have conducted comprehensive research into the factors that influence customer loyalty. It is widely accepted that product and service quality represents a fundamental driver of customer loyalty (Parasuraman, Zeithaml & Berry, 1988).

1. Product and Service Quality

The SERVQUAL model, developed by Parasuraman et al. (1988), demonstrated that perceived quality is a fundamental variable influencing customer loyalty. The extant literature indicates that customers are more inclined to pay a premium or remain loyal when the quality of service is high (Zeithaml et al., 1996).

2. Service problems and solutions

Tax and Brown (1998) demonstrated that the manner in which customers resolve service issues when they arise has a considerable influence on customer loyalty. The effective resolution of issues may serve to reinforce the relationship between the customer and the company.

The value of customer loyalty to the company:

The retention of customers is crucial for the profitability of a company, as long-term customers typically generate higher revenue and attract new customers through

word-of-mouth recommendations (Reichheld, 1996). Furthermore, it is less expensive to retain customers than to acquire new ones (Kotler & Keller, 2012).

A substantial body of research indicates that when customers evaluate the quality of service as high, they are more likely to exhibit positive behavioural intentions, thereby strengthening their relationship with the company. Conversely, when the quality of service is rated as low, customers may be more inclined to terminate their relationship with the company (Zeithaml et al., 1996). Customer churn has a direct impact on company revenue and the potential to reduce market share. Consequently, Berry and Parasuraman (1991) advocate that companies prioritise customer loyalty as a core strategic objective for long-term development.

2.4 Fast Food Industry

The fast food industry has its origins in the United States. Since the 1950s, with the advent of a more fast-paced lifestyle and the concomitant rise of a fast food culture, the fast food industry has developed rapidly. The fast food industry has grown to encompass a diverse range of food types, including burgers, fried chicken, pizza, and sandwiches, as well as a multitude of supporting products such as beverages and desserts. The global fast food industry has become one of the most significant and influential industries in the world. The latest data indicates that the global fast food industry has a market size exceeding 1.2 trillion U.S. dollars. The United States, China, Japan, Germany, and other countries and regions represent the primary markets for the global fast food industry. The fast food industry can be subdivided according to the mode of food service, with the following categories being identified: self-service fast food, take-out fast food, chain fast food, and so on. (Li, 2023)

The development of the fast food industry can be described as follows: Firstly, there is a growing trend towards healthier and more environmentally-friendly fast food. As people become more health-conscious, there is a growing awareness among consumers of the nutritional composition and hygiene safety of fast food. It thus follows that the fast food industry has considerable potential for the development and promotion of healthy and environmentally friendly products. Secondly, there is a trend towards the application of technology and digitalisation. The fast food industry is increasingly utilising information technology and digitalisation, including the implementation of self-service ordering machines, mobile payment systems, electronic coupons and other such technologies. The implementation of these technologies not only enhances the convenience and experience of consumers, but also offers a multitude of avenues for

enterprise management and marketing. Thirdly, there is a growing trend towards internationalisation and localisation. In parallel with the expansion of economic globalisation, the brands and products of the fast food industry are also becoming increasingly internationalised. Concurrently, consumers in disparate countries and regions exhibit divergent needs and preferences with respect to fast food. Consequently, the strategy and practice of localisation in the fast food industry assume considerable importance.

The fast food industry is one of the most dynamic and rapidly evolving sectors within China's consumer market, characterised by high growth and rapid development. The international fast food chain enterprises are rapidly expanding in the domestic market. However, there is a discrepancy between the modern local fast food and the Western fast food in terms of service quality, customer satisfaction and loyalty. A comprehensive analysis of the discrepancy between Chinese and Western fast food in terms of service quality is essential to establish a theoretical foundation for enhancing the quality of service provided by local fast food enterprises. (Huang, 2019)

2.5 SERVQUAL

In their seminal work published in 1988, Parasuraman, Zeithaml & Berry investigated the influence of service quality on customer satisfaction and loyalty. They proposed the SERVQUAL model, which has become a widely used tool in the field of service quality research. The study presents a questionnaire comprising 34 items pertaining to diverse aspects of service quality, including equipment, facilities, staff image, service punctuality, staff attitude, personalised service, and trust. The questionnaire employed a seven-point scale with no intermediate labels. An empirical study was conducted using the SERVQUAL scale to investigate the impact of service quality on consumer satisfaction and loyalty. The contribution of this method is to provide a reliable and valid tool for measuring consumer perceptions of service quality, which provides an important basis for management and improvement in the service industry. Then Parasuraman, Zeithaml & Berry (1988) proposed an important tool for measuring service quality – the SERVQUAL scale – but its applicability and accuracy still require further research and validation.

In a paper published in the Journal of Retailing in 1991, Parasuraman, Zeithaml & Berry refined and reassessed the SERVQUAL scale with a view to enhancing its reliability and validity in the context of service quality research. By redefining and reordering the indicators in the scale and reanalysing the sample data, a more precise

and reliable version of the SERVQUAL scale was proposed, namely the generic scale of Tangibles, Reliability, Responsiveness, Assurance, and Empathy.

Tangibles include physical facilities, equipment, and service personnel.

Reliability is the ability to reliably and accurately fulfill service commitments.

Responsiveness refers to the willingness to help customers and improve service levels quickly.

Assurance refers to the knowledge, courtesy, and ability to express confidence and trustworthiness that an employee possesses.

Empathy means caring and providing personalized service to customers.

2.6 Conceptual Framework

The figure below shows the conceptual framework of the study.
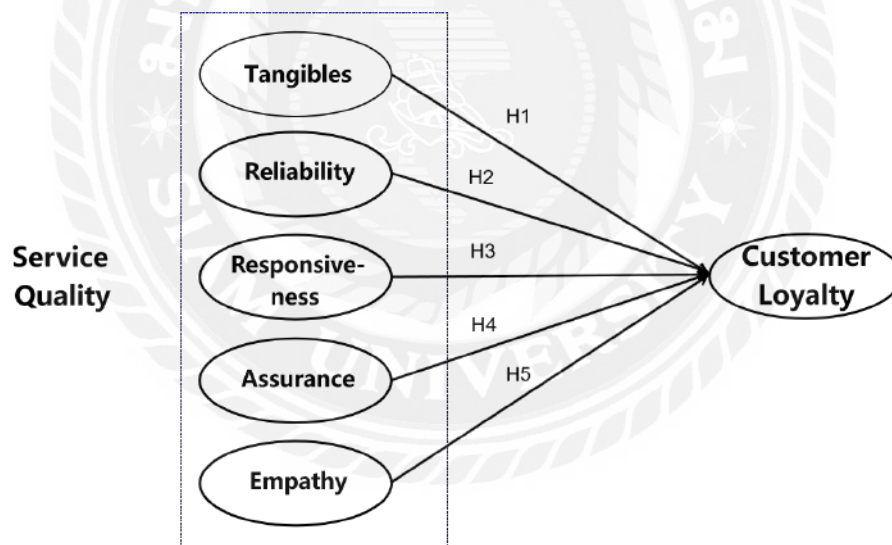
Figure 2. 1 Conceptual Framework

Source: Parasuraman, Zeithaml & Berry (1991)

Chapter 3 Research Methodology

3.1 Research Design

This study, "The Effect of Service Quality on Customer Loyalty in the Fast-Food Industry: A Perspective of University Students in Chengdu City, Sichuan Province, China" utilized a cross-sectional, quantitative research design aimed at exploring the relationship between fast food service quality and customer loyalty.

In this study, a questionnaire survey was conducted with college student customers of fast food in Chengdu City.The questionnaire design phase of this study involves the following three main steps:

(1) Determine the initial version of the questionnaire

The impact of fast food service quality on customer loyalty were clarified and the questionnaire questions were designed according to the specific requirements to form a preliminary version of the questionnaire.

(2) Questionnaire revision

After soliciting feedback from professionals and experts in the field, the initial version of the questionnaire was adjusted and revised to eliminate problems such as poorly formulated questions and confusing language, to ensure the accuracy, specificity and clarity of the questions.

(3) Pilot survey

In order to ensure the logical consistency of the questionnaire, a small pilot survey was conducted prior to the formal survey.

The research instrument was a questionnaire using a 5-point Likert scale ranging from "Strongly Agree" = 5, "Agree" = 4, "Don't Care" = 3, "Disagree" = 2 to "Strongly Disagree" = 1. The questionnaire has 6 dimensions with differences in the total number of questions in each dimension.Western fast food service quality has 22 questions on tangibles, reliability, responsiveness, assurance and empathy, adapted from Parasuraman, Zeithaml & Berry (1988); Parasuraman, Zeithaml & Berry (1991); Llosa , Chandon & Orsingher (1998); Western fast food customer loyalty has 4 questions, adapted from Zeithaml, Berry & Parasuraman (1996). There are 26 questions in total.

The questionnaire is divided into three parts. The first part is demographic information, including age, gender, education and visits to Western fast food restaurant.

The second part is fast food service quality measurement items and the third part is fast food customer loyalty measurement items.

Table 3. 1 Fast food service quality and customer loyalty scale

Variant	Dimensions	Measurement Code	Measurement Items	Source
Service Quality	Tangibles	X1	1. How modern do you think the restaurant equipment of fast food is?	Parasuraman, Zeithaml & Berry (1988); Parasuraman, Zeithaml & Berry (1991); Llosa , Chandon & Orsingher (1998)
		X2	2. What is your opinion of the attractiveness of the dining environment and in-store facilities of fast food?	
		X3	3. Do you think that fast food service staff are neatly and appropriately dressed?	
		X4	4. Do you think that the hardware of fast food matches the service provided by the service staff?	
		X5	5. Are you satisfied that Fast Food fulfills its service commitments in a timely manner?	
		X6	6. How helpful were the staff when you had trouble with Western fast food?	
	Reliability	X7	7. Do you trust the food and service of fast food?	
		X8	8. Are you satisfied with the fast food service and do you think it was done right the first time?	
		X9	9. Do you think that the ordering and delivery service of fast food is accurate?	
		X10	10. Are you satisfied with the waiting time you were informed of by the fast food?	
	Responsiveness	X11	11. Are you satisfied with the speed of service provided by the fast food staff?	
		X12	12. Do you think that fast food employees are self-motivated and proactive in their service?	
		X13	13. How satisfied are you with the eagerness of fast food employees to answer questions?	
	Assurance	X14	14. Do you trust fast food workers?	
		X15	15. Do you feel reassured and safe in your dealings with fast food?	

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		X16	16. How satisfied are you with the courtesy of the fast food staff?	
		X17	17. Are you satisfied that fast food employees have sufficient knowledge to answer questions?	
	Empathy	X18	18. Do you think fast food has some humanized service system or measures?	
		X19	19. Are you satisfied with the care given by fast food staff to special customers?	
		X20	20. Are you satisfied that the fast food staff is able to understand the needs of the customers through observation in a timely manner?	
		X21	21. Do you think that fast food can meet your needs?	
		X22	22. Are you satisfied with the opening hours of fast food and do you think they are convenient for most customers?	
Customer Loyalty		Y23	23 . Do you regularly choose fast food as a dining location and demonstrate a high level of reliance and trust in our food and service?	Zeithaml, Berry, & Parasuraman (1996)
		Y24	24. Do you frequent fast food and actively recommend food or services to your friends and family?	
		Y25	25. Do you still prefer your fast food brand even when other fast food restaurants are running promotions?	
		Y26	26. Has your interest in and support for fast food been ongoing for some time?	

3.2 Hypothesis

H1: Tangible nature of fast food service quality has a positive impact on customer loyalty.

H2: Reliability of fast food service quality has a positive impact on customer loyalty.

H3: Responsiveness of fast food service quality has a positive impact on customer loyalty.

H4: Assurance of fast food service quality has a positive impact on customer loyalty.

H5: Empathy of fast food service quality has a positive impact on customer loyalty.

3.3 Sampling and Data Collection

3.3.1 Sample size

The university students who patronized Western and local fast food restaurants in Chengdu were the research subjects.

Simple random sampling was used to determine the sample size for this survey, and for variables with large variations in mean values, the formula for sample size was used as follows:

$$N = \sigma^2 / (\frac{e^2}{Z^2} + \frac{\sigma^2}{N})$$ (3-1)

In the formula, N - the number of sample, σ2 - the standard deviation, e - the absolute error, and Z is a value associated with the confidence level. For example, when the survey results are within the 95 per cent confidence level, their 95 per cent confidence level requires the statistic Z to be 1.96. In special cases, where the population size is very large, the formula becomes:

$$N = Z^2 \sigma^2 / e^2$$ (3-2)

According to the relevant literature review, the maximum value is generally 0.25 in sampling surveys. The sample selection of this survey meets the conditions of formula (3-2).According to the above formula (3-2), the confidence level is 95%, then Z=1.95, e=5%, σ2=0.25, and the calculated sample size was 384. The sample size of this study was 400, which met the theoretical requirements.

3.3.2 Data collection

In this study, 400 college students customers of fast food in Chengdu were surveyed in order to investigate the relationship between fast food service quality on

customer loyalty and to infer the impact of fast food service quality on customer loyalty.The sample included undergraduate, master's and doctoral students, who have had consumption of Western fast food in Chengdu city in the second half of the year 2023.

The questionnaire was distrubuted online in the Wenjuanxing application, and the researcher administered the questionnaire to 400 college students who were customers of fast food in Chengdu City, informing them that the questionnaire was anonymous, that the data would be used for academic research only, and that the questionnaire was completed under the guidance and supervision of the researcher.

3.4 Data Analysis

This study utilized data processing software for data analysis, including descriptive statistical analysis, reliability analysis, validity analysis, correlation analysis, and regression analysis.

(1) Descriptive statistical analysis

Descriptive statistical analysis focuses on sifting, analyzing and summarizing the large amount of data obtained after a survey. It summarizes the concentration trends and the degree of dispersion of these data. Descriptive analysis using SPSS statistical software can generate relevant descriptive statistics. Concentrated trends in the analyzed data include the plurality and the median. Descriptive data deviations include maximum, minimum, extreme, interquartile, variance, and standard deviation. These descriptive statistics synthesize and analyze the characteristics of the variables.

This study describes the basic characteristics and proportions of the sample based on the frequency distribution of attributes:age, gender, education and visits to Western fast food restaurant.

(2) Reliability analysis

Confidence is the reliability of data measured by repeated measurements of the same object using the same measurements and obtaining consistent results. Valid measurements must ensure that the data are stable and reliable. Currently, Cronbach's alpha is the most commonly used reliability measure. In general, a reliability coefficient greater than 0.8 indicates good scale reliability. Between 0.7 and 0.8 is acceptable. 0.6 to 0.7 is barely acceptable. A coefficient below 0.6 indicates that the scale needs to be modified.

Cronbach's alpha was chosen to test the reliability of the scale in this study.

(3) Validity analysis

Validity refers to the accuracy of data measurement. Factor analysis is currently the most desirable method for validity analysis because it is the only way to measure the percentage of variation in the entire scale explained by the validity analysis process and its valid items. In this study, KMO (Kaiser-Meyer-Olkin) test was mainly used.

(4) Correlation analysis

Correlation analysis examines the relationship between random variables, including the direction and degree of correlation between these variables. In this study, Pearson's correlation coefficient was mainly used.

(5) Regression analysis

Regression analysis is a widely used statistical method for studying quantitative relationships between two or more variables. It mainly examines whether the phenomena are correlated, the direction of the correlation, and the degree of closeness. Regression analysis analyzes the specific forms of correlation between phenomena, determines the causal relationship between them, and expresses the relationship using a mathematical model.

3.5 Reliability and Validity Analysis of Questionnaire

In order to ensure the reasonableness and accuracy of the measurement items, the reliability and validity of the questionnaire should be tested first, so this study began with a pre-survey of the questionnaire. While conducting the questionnaire pre-survey, the researcher used the random sampling method to select colleges and universities in Chengdu City, the pre-questionnaire survey issued 60 questionnaires, and after excluding incomplete and obviously wrong questionnaires, a total of 50 valid questionnaires were obtained, and the effective recovery rate was 83.33%.

After collecting the pre-test questionnaire, this study analyzed the reliability and validity of the collected data using statistical analysis software. In this study, the reliability of the pre-test questionnaire was mainly tested with Cronbach's alpha value, and the validity of the questionnaire was tested with KMO test and Bartlett's test of sphericity. In testing the reliability of the pre-test questionnaire, this study referred to

the common judgment criteria used by most scholars. In addition, CITC (Corrected Item Total Correlation) was used in this study to determine whether the items were reasonable or not. The correspondence between the interval of Cronbach's α value and the reliability level is shown in Table 3.2.

Table 3. 2 Correspondence between Cronbach's α value range and reliability level

Cronbach's alpha	Internal consistency
> 0.900	Ideal
0.800 - 0.899	Rare
0.700 - 0.799	Favorable
0.600 - 0.699	Applicable
0.500 - 0.599	Low, but still usable
< 0.500	Consider deleting

In addition, in conducting the validity test, the study followed the KMO criteria proposed by Kaiser (1974) as shown in Table 3.3.

Table 3. 3 KMO values

KMO value	Validity
> 0.900	Ideal
0.800 - 0.899	Well suited
0.700 - 0.799	Applicable
0.600 - 0.699	Barely fit
0.500 - 0.599	Hardly suitable
< 0.500	Unsuitable

Reliability refers to the consistency and stability of the results of two measurements before and after. Measurement consistency refers to whether the items measure the same thing, and stability refers to whether the measurement instrument is reliable in repeatedly measuring an item. In Likert scales, the degree of internal consistency is usually expressed by the Cronbach's alpha (α) coefficient. If the Cronbach's α of the total scale is above 0.8 and that of the subscales is above 0.7, the

reliability of the whole scale is good. When the Cronbach's α of the scale is less than 0.6, it is necessary to consider deleting or adding relevant items of the scale to improve the internal consistency coefficient. In this study, SPSS28.0 software was used to calculate the CITC value of each item and the Cronbach's α coefficient value of the corresponding scale for each dimension, and the test results are shown in Table 3.4.

Table 3. 4 Results of reliability analysis

Measurement encoding	Correction Item Total Correlation (CITC) □	Deleted alpha coefficients for item □	Cronbach's alpha coefficient □
X1	0.479	0.949	
X2	0.657	0.947	
X3	0.599	0.948	
X4	0.567	0.948	
X5	0.740	0.946	
X6	0.787	0.945	
X7	0.612	0.947	
X8	0.791	0.945	
X9	0.694	0.946	
X10	0.600	0.947	
X11	0.725	0.946	0.949
X12	0.555	0.948	
X13	0.687	0.946	
X14	0.715	0.946	
X15	0.713	0.946	
X16	0.728	0.946	
X17	0.766	0.945	
X18	0.808	0.944	
X19	0.728	0.946	
X20	0.566	0.949	
X21	0.445	0.949	
X22	0.643	0.947	
Y23	0.724	0.781	
Y24	0.558	0.844	0.839
Y25	0.733	0.774	
Y26	0.706	0.782	

The overall Cronbach's alphas for the Western fast food pre-survey questionnaire were 0.949 and 0.839, which are significantly higher than the generally accepted good internal consistency threshold of 0.7, indicating that the questionnaire items are highly reliable and consistently measure the underlying structure of service quality in the Western fast food industry.

The Corrected Item Total Correlation (CITC) values range from 0.479 to 0.808, indicating that each item has a moderate to strong correlation item with the total score of the remaining items, meaning that all questions contribute positively to the measured construct and are consistent with the overall scale.

The Alpha coefficient, when items are deleted, provides insight into the effect of each item on the overall reliability of the scale. The alpha value does not increase significantly if any item is deleted, which supports the inclusion of all items in the questionnaire to maintain high reliability.

In this study, the validity of the pre-survey questionnaire was analyzed using the KMO test (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) and the Bartlett Test of Sphericity (Bartlett Test of Sphericity), see Table 3.5.

Table 3. 5 Results of validity analysis

	KMO value		0.756
X1-22	Bartlett Sphericity Check	approximate chi-square (math.)	728.374
		df	231
		p-value	0.000
Y23-26	KMO value		0.760
	Bartlett Sphericity Check	approximate chi-square (math.)	62.671
		df	6
		p-value	0.000

The KMO sampling adequacy measures for the Western fast food pre-survey questionnaire were 0.756 and 0.760, which are well above the minimum acceptable value of 0.5, a value that indicates that the sample size is sufficient for analysis and that

the correlation pattern is relatively compact, making the factor analysis appropriate for this dataset.

The Bartlett's test yielded approximate chi-square values of 728.374 and 62.671 which are highly significant. The significance of this test is that there is enough relationship between the variables to allow factor analysis to support the structural validity of the questionnaire.

Chapter 4 Findings

4.1 Descriptive Statistical Analysis

This study analyzed the basic information of 400 college students from 20 colleges and universities in Chengdu, Sichuan Province, focusing on gender, age and education. Detailed information is shown in Table 4.1.

Of the 400 respondents, the gender distribution is as follows: men: 239 respondents, or 59.75% of the sample.Females: 161 respondents, or 40.25% of the sample.The distribution suggests a higher representation of male students in the sample, which could reflect the demographic characteristics of the university population surveyed or a specific interest in the fast food consumption patterns surveyed.

The age distribution of the respondents is divided into four groups: 20 years old and below: 79 respondents (19.75%), 21 to 25 years old: 241 respondents (60.25%), 26 to 29 years old: 56 respondents (14.00%), and 30 years old and above: 24 respondents (6.00%). The group of 21-25 years old was the dominant age group, accounting for more than half of respondents (60.25%).), consistent with the typical age range of college students.

Respondent's level of education: Bachelor's Degree: 341 respondents (85.25%), indicating that the vast majority of respondents are pursuing or have completed a bachelor's degree. The dominance of undergraduates in the sample suggests that the insights gained may be most relevant to that level of education, potentially influencing their fast food preferences and loyalty.

Table 4. 1 Demographic Characteristics of Respondents

Basic Information	Frequency	Percentage
1. Gender		
Male	239	59.75
Female	161	40.25
2. Age		
Less than 20	79	19.75
21-25 years	241	60.25
26-29 years	56	14

Over 30 years old		24	6

3. Education			
Bachelor's degree		341	85.25
Master's degree		49	12.25
Doctoral degree		7	1.75
Doctoral degree or above		3	0.75

4. In the previous six months, you patronized the following Western fast food restaurants (check all that apply):

MacDonald		363	90.75
Kentucky Fried Chicken		379	94.75
Pizza Hut		234	58.5
Burger King		77	19.25

Table 4. 2 Arbitrary levels of interpretation of questionnaire data

Arbitrary level	Meaning
1.00 - 1.79	Strongly Disagree
1.80 - 2.59	Disagree
2.60 - 3.39	Neutral
3.40 - 4.19	Agree
4.20 - 5.00	Strongly Agree

(Pimentel, 2010)

Table 4. 3 Descriptive statistics of service quality

Measurement code	Sample size □	Minimum value	Maximum values	Average □	Standard deviation □	Skewness	Kurtosis	Interpretation □
X1	400	3	5	4.08	0.659	-0.086	-0.7	High
X2	400	2	5	3.76	0.764	-0.106	-0.424	High
X3	400	3	5	4.1	0.539	0.077	0.321	High
X4	400	2	5	3.88	0.792	-0.513	0.041	High
X5	400	2	5	3.84	0.732	-0.05	-0.523	High
X6	400	1	5	3.84	0.759	-1.107	2.759	High
X7	400	2	5	3.76	0.764	-0.377	-0.052	High
X8	400	2	5	3.86	0.722	-0.745	0.875	High
X9	400	3	5	3.94	0.614	0.035	-0.351	High

								High
X10	400	2	5	3.76	0.815	-0.65	0.099	High
X11	400	1	5	3.92	0.718	-1.19	3.89	High
X12	400	1	5	3.8	0.896	-1.279	2.162	High
X13	400	2	5	3.84	0.645	-0.741	1.28	High
X14	400	2	5	3.76	0.737	0.111	-0.642	High
X15	400	2	5	3.8	0.826	-0.258	-0.482	High
X16	400	1	5	3.88	0.841	-0.989	1.652	High
X17	400	2	5	3.66	0.711	0.263	-0.538	High
X18	400	1	5	3.8	0.918	-1.158	1.751	High
X19	400	1	5	3.78	0.856	-1.101	2.352	High
X20	400	1	5	3.5	0.966	-0.604	0.165	High
X21	400	2	5	3.7	0.756	-0.28	-0.155	High
X22	400	2	5	4.12	0.683	-0.535	0.531	High

Table 4.3 provides a descriptive statistical analysis of fast food service quality based on 400 samples covering 22 service dimensions (X1 to X22). The data presents the minimum, maximum, mean, standard deviation and median values of the service quality assessment. The mean values ranged from 3.5 to 4.12, indicating an overall good level of service. The minimum values ranged from 1 to 3, and the maximum values were all 5, indicating a wide span of evaluators' perceptions. Standard deviations ranged from 0.539 to 0.966, indicating that while the overall ratings tended to be positive, the degree of consistency varied across dimensions. The medians were mostly 4, further indicating that most service dimensions were rated above average.

Table 4. 4 Descriptive statistics of customer loyalty

Measurement code	Sample size □	Minimum value	Maximum values	Average □	Standard deviation □	Skewness	Kurtosis	Interpretation □
Y23	400	2	5	3.76	0.681	-0.042	-0.256	High
Y24	400	2	5	3.4	0.776	-0.052	-0.444	High
Y25	400	1	5	3.9	0.855	-0.966	1.492	High
Y26	400	2	5	3.82	0.741	0.004	-0.613	High

Table 4.4 provides a descriptive statistical analysis of fast food customer loyalty based on 400 samples covering 4 dimensions of customer loyalty (Y23 to Y26). The data presents the minimum, maximum, mean, standard deviation and median values of customer loyalty assessment. The mean values ranged from 3.4 to 3.9, showing an overall better level of customer loyalty. The minimum values ranged from 1 to 2, and the maximum values were all 5, indicating a wide span of feelings among the evaluators. The standard deviations ranged from 0.681 to 0.855, indicating that while the overall ratings tended to be positive, the degree of consistency varied across dimensions. The median is mostly 4, further indicating that most customer loyalty is rated as above average.

4.2 Results of the Study

4.2.1 Reliability analysis

Table 4. 5 Results of reliability analysis of questionnaire

measurement code	Correction Item Total Correlation (CITC) □	Deleted alpha coefficients for item □	Cronbach's alpha coefficient □
X1	0.491	0.944	
X2	0.648	0.942	
X3	0.572	0.943	
X4	0.566	0.943	
X5	0.723	0.941	
X6	0.761	0.941	
X7	0.620	0.943	
X8	0.787	0.94	
X9	0.675	0.942	0.945
X10	0.533	0.944	
X11	0.739	0.941	
X12	0.522	0.944	
X13	0.640	0.942	
X14	0.694	0.942	
X15	0.725	0.941	
X16	0.744	0.941	

X17	0.755	0.941	
X18	0.812	0.939	
X19	0.657	0.942	
X20	0.552	0.944	
X21	0.413	0.945	
X22	0.627	0.942	
Y23	0.717	0.756	
Y24	0.511	0.843	0.826
Y25	0.682	0.768	
Y26	0.722	0.748	

The overall Cronbach's alphas for the questionnaire items were 0.945 and 0.826, which are significantly higher than the generally accepted threshold of good internal consistency of 0.7, indicating that the questionnaire items are highly reliable and consistently measure the underlying structure of service quality in the fast food industry.

The Corrected Item Total Correlation (CITC) values range from 0.491 to 0.812, indicating that each item has a moderate to strong correlation item with the total score of the remaining items, meaning that all questions contribute positively to the measured construct and are consistent with the overall scale.

The Alpha coefficient, when items are deleted, provides insight into the effect of each item on the overall reliability of the scale. The alpha value does not increase significantly if any item is deleted, which supports the inclusion of all items in the questionnaire to maintain high reliability.

4.2.2 Validity analysis

Validity refers to the accuracy of data measurement. Factor analysis is the most desirable method for current validity analysis because it is the only method that can measure the percentage of variation in the entire scale explained by the validity analysis process and its valid items. In this study, KMO (Kaiser-Meyer-Olkin) test was mainly used.KMO statistic ranges from 0 to 1.

Table 4. 6 Results of validity analysis of questionnaire

X1-22	KMO value		0.724
	Bartlett Sphericity Check	approximate chi-square (math.)	9819.627
		df	231
		p-value	0.000
Y23-26	KMO value		0.775
	Bartlett Sphericity Check	approximate chi-square (math.)	645.527
		df	6
		p-value	0.000

The KMO measures of 0.724 and 0.775 are well above the minimum acceptable value of 0.5, making the factor analysis appropriate for this data set.

The Bartlett's test yielded approximate chi-square values of 9819.627 and 645.527 which are highly significant. The significance of this test is that there is sufficient relationship between the variables to allow factor analysis to support the structural validity of the questionnaire.

4.2.3 Correlation analysis

In the correlation analysis of the effect of service quality on customer loyalty, the Pearson correlation coefficients of the service dimensions X1-X22 on the loyalty dimensions Y23-Y26 are, for the most part, close to 0.5, implying that there is a moderately positive correlation between the service variable and the loyalty variable, and that this correlation is for the most part statistically highly significant ($p < 0.01$).

In this case, the Pearson correlation coefficient of X10 to Y23 is -0.032, which indicates a very weak negative correlation between the two variables, and the value of -0.032 is not accompanied by an asterisk to indicate the level of significance, the correlation may be considered statistically insignificant, i.e., it may be simply the result of random variation.

Table 4. 7 Bivariate correlations of the effect of service quality on customer loyalty

	Y23	Y24	Y25	Y26	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20	X21	X22
												Pearson's correlation														
Y23	1																									
Y24	0.524**	1																								
Y25	0.613**	0.393**	1																							
Y26	0.630**	0.440**	0.699**	1																						
X1	0.445**	0.290**	0.441**	0.317**	1																					
X2	0.429**	0.535**	0.423**	0.242**	0.516**	1																				
X3	0.393**	0.144**	0.543**	0.396**	0.654**	0.642**	1																			
X4	0.430**	0.372**	0.308**	0.271**	0.364**	0.615**	0.545**	1																		
X5	0.486**	0.396**	0.391**	0.316**	0.359**	0.612**	0.599**	0.520**	1																	
X6	0.430**	0.518**	0.377**	0.234**	0.266**	0.521**	0.480**	0.368**	0.712**	1																
X7	0.429**	0.568**	0.546**	0.455**	0.436**	0.554**	0.448**	0.615**	0.469**	0.383**	1															
X8	0.502**	0.351**	0.529**	0.402**	0.403**	0.448**	0.499**	0.496**	0.754**	0.654**	0.593**	1														
X9	0.541**	0.429**	0.523**	0.549**	0.358**	0.396**	0.442**	0.603**	0.647**	0.539**	0.525**	0.794**	1													
X10	-0.032	0.089	0.109*	-0.205**	0.148**	0.294**	0.237**	0.328**	0.238**	0.392**	0.261**	0.420**	0.252**	1												
X11	0.371**	0.274**	0.281**	0.086	0.395**	0.587**	0.539**	0.724**	0.663**	0.639**	0.477**	0.636**	0.626**	0.516**	1											
X12	0.414**	0.289**	0.419**	0.278**	0.299**	0.193**	0.415**	0.362**	0.563**	0.631**	0.164**	0.484**	0.634**	0.264**	0.537**	1										
X13	0.141**	0.409**	0.225**	0.065	0.125*	0.329**	0.219**	0.198**	0.456**	0.685**	0.248**	0.512**	0.381**	0.499**	0.362**	0.431**	1									
X14	0.484**	0.589**	0.470**	0.398**	0.452**	0.431**	0.313**	0.191**	0.486**	0.612**	0.431**	0.577**	0.499**	0.304**	0.380**	0.383**	0.636**	1								
X15	0.378**	0.564**	0.539**	0.334**	0.361**	0.559**	0.270**	0.392**	0.345**	0.429**	0.559**	0.558**	0.490**	0.495**	0.447**	0.217**	0.505**	0.777**	1							
X16	0.300**	0.320**	0.513**	0.255**	0.307**	0.298**	0.336**	0.249**	0.588**	0.661**	0.392**	0.665**	0.529**	0.367**	0.549**	0.580**	0.593**	0.535**	0.572**	1						
X17	0.369**	0.647**	0.274**	0.226**	0.400**	0.624**	0.246**	0.426**	0.473**	0.642**	0.514**	0.493**	0.412**	0.551**	0.575**	0.271**	0.537**	0.723**	0.738**	0.502**	1					
X18	0.469**	0.507**	0.485**	0.389**	0.258**	0.475**	0.446**	0.519**	0.728**	0.674**	0.532**	0.714**	0.654**	0.472**	0.615**	0.561**	0.522**	0.462**	0.529**	0.696**	0.571**	1				
X19	0.219**	0.374**	0.326**	0.032	0.244**	0.440**	0.308**	0.05	0.392**	0.655**	0.226**	0.404**	0.204**	0.527**	0.395**	0.308**	0.699**	0.615**	0.590**	0.603**	0.634**	0.556**	1			
X20	0.427**	0.268**	0.255**	0.126*	0.252**	0.245**	0.135**	0.367**	0.255**	0.301**	0.326**	0.388**	0.389**	0.408**	0.434**	0.301**	0.451**	0.338**	0.503**	0.617**	0.423**	0.543**	0.497**	1		
X21	0.016	0.410**	0.078	0.047	0.169**	0.292**	0.074	0.208**	0.094	0.231**	0.430**	0.253**	0.004	0.469**	0.177**	-0.207**	0.354**	0.374**	0.514**	0.259**	0.593**	0.376**	0.486**	0.371**	1	
X22	0.450**	0.325**	0.707**	0.439**	0.557**	0.439**	0.566**	0.175**	0.520**	0.424**	0.478**	0.562**	0.304**	0.196**	0.306**	0.269**	0.317**	0.495**	0.505**	0.653**	0.373**	0.614**	0.559**	0.334**	0.419**	1

* $p < 0.05$ ** $p < 0.01$

4.2.4 Linear regression analysis

4.2.4.1 Linear Regression Analysis of the Effect of Service Quality on Customer Loyalty Y23

Table 4. 8 Linear regression analysis of the effect of service quality on customer loyalty Y23

	Unstandardized coefficient		Standardisation ratio	$t\square$	$p\square$	Collinearity Diagnostics	
	$B\square$	Standard Error $\square$	Beta$\square$			VIF $\square$	Tolerance $\square$
Tangibles	0.632	0.082	0.507	7.664	0.000**	2.817	0.355
Reliability	-0.516	0.12	-0.426	-4.315	0.000**	6.275	0.159
Responsiveness	-0.554	0.108	-0.489	-5.142	0.000**	5.812	0.172
Assurance	1.025	0.175	0.845	5.866	0.000**	8.347	0.175
Empathy	0.132	0.06	0.124	2.212	0.028*	2.024	0.494
R^2	0.387						
$F\square$	$F(5,394)=49.741, p=0.000$						
D-W	1.985						
	* $p<0.05$ ** $p<0.01$						

From the data analysis, it can be seen that R square = 0.387 and there is a strong linear relationship between the independent variable and the dependent variable, which indicates the effect of service quality on the loyalty of Western fast food customers Y23.

The regression equation shows F = 49.741, p = 0.000.The results of the F-test indicate that the independent variables in the model as a whole have a very significant effect on the dependent variable; the p-value is very small, much smaller than the commonly used significance level (e.g. 0.05), which means that the null hypothesis can be rejected, i.e., at least one of the independent variables in the model has a significant effect on the dependent variable.

4.2.4.2 Linear Regression Analysis of the Effect of Service Quality on Customer Loyalty Y24

Table 4. 9 Linear regression analysis of the effect of service quality on customer loyalty Y24

	Unstandardized coefficient		Standardisation ratio	$t\Box$	$p\Box$	Collinearity Diagnostics	
	B$\Box$	Standard Error $\Box$	Beta$\Box$			VIF $\Box$	Tolerance $\Box$
Tangibles	0.428	0.092	0.301	4.643	0.000**	2.817	0.355
Reliability	-0.722	0.134	-0.524	-5.407	0.000**	6.275	0.159
Responsiveness	-0.795	0.12	-0.616	-6.607	0.000**	5.812	0.172
Assurance	1.572	0.195	1.138	8.054	0.000**	8.347	0.175
Empathy	0.317	0.067	0.261	4.737	0.000**	2.024	0.494
R^2				0.41			
F$\Box$				F (5,394)=54.820,p=0.000			
D-W				1.913			
			* p<0.05 ** p<0.01				

From the data analysis, it can be seen that R square = 0.410, there is a strong linear relationship between the independent variable and the dependent variable, which indicates that the results of this operation can truly and reliably reflect the effect of service quality on the loyalty of Western fast food customers Y24.

The regression equation shows F = 54.820, p = 0.000.The results of the F-test indicate that the independent variables in the model as a whole have a very significant effect on the dependent variable; the p-value is very small, much smaller than the commonly used significance level (e.g. 0.05), which means that the null hypothesis can be rejected, i.e., at least one of the independent variables in the model has a significant effect on the dependent variable.

4.2.4.3 Linear Regression Analysis of the Effect of Service Quality on Customer Loyalty Y25

Table 4. 10 Linear regression analysis of the effect of service quality on customer loyalty Y25

	Unstandardized coefficient		Standardisation ratio	$t\square$	$p\square$	Collinearity Diagnostics	
	$B\square$	Standard Error $\square$	Beta$\square$			VIF $\square$	Tolerance $\square$
Tangibles	0.409	0.097	0.261	4.198	0.000**	2.817	0.355
Reliability	-0.494	0.141	-0.325	-3.499	0.001**	6.275	0.159
Responsiveness	-1.056	0.127	-0.742	-8.298	0.000**	5.812	0.172
Assurance	1.892	0.206	1.242	9.163	0.000**	8.347	0.175
Empathy	0.177	0.071	0.132	2.499	0.013*	2.024	0.494
R^2	0.458						
$F\square$	F (5,394)=66.516, p=0.000						
D-W	2.348						
* p<0.05 ** p<0.01							

From the data analysis, it can be seen that R square = 0.458, there is a strong linear relationship between the independent variable and the dependent variable, which indicates that the results of this operation can truly and reliably reflect the effect of service quality on the loyalty of Western fast food customers Y25.

The regression equation shows F = 66.516, p = 0.000.The results of the F-test indicate that the independent variables in the model as a whole have a very significant effect on the dependent variable; the p-value is very small, much smaller than the commonly used significance level (e.g. 0.05), which means that the null hypothesis can be rejected, i.e., at least one of the independent variables in the model has a significant effect on the dependent variable.

4.2.4.4 Linear Regression Analysis of the Effect of Service Quality on Customer Loyalty Y26

Table 4. 11 Linear regression analysis of the effect of service quality on customer loyalty Y26

	Unstandardized coefficient		Standardisation ratio	$t\square$	$p\square$	Collinearity Diagnostics	
	B□	Standard Error □	Beta□			VIF □	Tolerance □
Tangibles	0.413	0.091	0.305	4.567	0.000**	2.817	0.355
Reliability	-0.676	0.131	-0.513	-5.149	0.000**	6.275	0.159
Responsiveness	-1.313	0.118	-1.066	-11.112	0.000**	5.812	0.172
Assurance	2.108	0.192	1.598	10.99	0.000**	8.347	0.175
Empathy	-0.029	0.066	-0.025	-0.439	0.661	2.024	0.494
R²□				0.376			
F□			F (5,394)=47.506,p=0.000				
D-W				2.325			
* p<0.05 ** p<0.01							

From the data analysis, it can be seen that R square = 0.376, there is a strong linear relationship between the independent variable and the dependent variable, which indicates the effect of service quality on the loyalty of Western fast food customers Y26.

The regression equation shows F = 47.506, p = 0.000.The results of the F-test indicate that the independent variables in the model as a whole have a very significant effect on the dependent variable; the p-value is very small, much smaller than the commonly used significance level (e.g., 0.05), which means that the null hypothesis can be rejected, i.e., at least one of the independent variables in the model has a significant effect on the dependent variable.

4.2.5 Results of hypothesis testing

Table 4. 12 Effect of service quality on customer loyalty

	Unstandardized coefficient		Standardisation ratio	$t\square$	$p\square$	Collinearity Diagnostics	
	B$\square$	Standard Error $\square$	Beta$\square$			VIF $\square$	Tolerance $\square$
Constant	0.856	0.157	-	5.46	0.000**	-	-
Tangibles	0.415	0.054	0.371	7.707	0.000**	2.21	0.453
Reliability	-0.64	0.091	-0.58	-7.061	0.000**	6.442	0.155
Responsiveness	-0.891	0.08	-0.863	-11.182	0.000**	5.678	0.176
Assurance	1.702	0.13	1.54	13.053	0.000**	8.278	0.175
Empathy	0.164	0.045	0.168	3.666	0.000**	2.013	0.497
R²			0.587				
F$\square$			F (5,394)=111.872, p=0.000				
D-W			1.876				
* p<0.05 ** p<0.01							

From the analysis of the data, it can be seen that the linear regression model fit is relatively good, R square = 0.587, which is close to 0.6, which means that the results of this operation can truly reflect the effect of tangible, reliable, responsive, assured, and empathetic aspects of service quality on customer loyalty.There is no multicollinearity between the five variables, and the VIFs are all less than 10.The regression equation is significant, F = 111.872 and P=0.000.

Tangibles has a significant positive effect on customer satisfaction (B=0.415, p=0.000), reliability does not have an effect on customer satisfaction (B=-0.64, p=0.000), responsiveness does not have an effect on customer satisfaction (B=-0.891, p=0.000), assurance has a significant positive effect on customer satisfaction (B=1.702, p= 0.000), and empathy has a significant positive effect on customer loyalty (B=0.164, p=0.000).

Finally, the regression equation of the variables is as follows:

Customer loyalty = 0.856 + tangibility** 0.415 + assurance** 1.702 + empathy** 0.164.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

This chapter includes a summary of all the important aspects of the study, the conclusions are drawn from the findings in Chapter 4, and the discussion builds on the theoretical perspectives of the literature review in Chapter 2. Conclusions about Western fast food are drawn from the investigation and analysis of 26 questions about Western fast food.

5.1.1 Service Quality Level and Customer Loyalty in Fast Food Industry

Table 5. 1 Service quality and customer loyalty in the fast food industry

	Western fast food
Service quality	The highest rated service quality dimension was X22 (convenience of business hours) with a mean of 4.12, indicating a very high level of satisfaction with business hours.
	The lowest rating was X20 (Understanding Customer Needs through Observation) with a mean of 3.5, which is an area that could be improved.
	The dimensions of Tangibles (X1-X4), Reliability (X7-X10) and Assurance (X14-X17) consistently have high mean values around 3.8-4.1, showing strength in these areas.
	The range of means for responsiveness (X11-X13) and empathy (X18-X22) was slightly wider at 3.5-3.92, indicating greater variability in these factors.
Customer loyalty	The highest rated loyalty dimension was Y25 (Prefer Promotions) with a mean of 3.9, indicating a preference for stickiness.
	The lowest is Y24 (positive recommendation) with a mean of 3.4, an area that could be improved with better word-of-mouth marketing.
	The mean values of Y23 (high dependence/trust) and Y26 (sustained interest/support) were 3.76 and 3.82, respectively, indicating a moderately high level of loyalty.

The highest rated service quality dimension was X22 (Convenience of business hours) with a mean score of 4.12, indicating significant satisfaction with business hours. Conversely, the lowest rated dimension was X20 (Understanding customer needs through observation) with a mean of 3.5, indicating areas for improvement. The Tangibles (X1-X4), Reliability (X7-X10) and Assurance (X14-X17) dimensions consistently scored around 3.8-4.1, showing strengths in these areas. However, Responsiveness (X11-X13) and Empathy (X18-X22) have a slightly wider range of means, from 3.5 to 3.92, indicating some variability in these factors.

In terms of customer loyalty, Y25 (prefer promotions) has the highest loyalty rating with a mean of 3.9, indicating a preference for stickiness. On the contrary, Y24 (Positive recommendation) has the lowest rating with a mean of 3.4, indicating improvement to be made through enhanced word-of-mouth marketing. Y23 (High reliance/trust) and Y26 (Continued interest/support) had mean scores of 3.76 and 3.82 respectively, indicating high levels of loyalty.

This finding identifies areas of service quality that may affect lower loyalty in certain market segments, proposing changes focused on improving factors such as observation, consistency, trust, and recommendation. The comprehensive analysis highlights the importance of Western fast food providers addressing specific service quality dimensions and customer loyalty factors to optimize satisfaction and loyalty within their respective markets.

5.1.2 The Impact of Service Quality on Customer Loyalty in the Fast Food Industry

Table 5. 2 Impact of service quality on customer loyalty in the fast food industry

Hypotheses	Western Fast Food	
H1: Tangible nature has a significant positive effect on customer loyalty	B=0.415, p<0.01	Supported
H2: Reliability has a significant positive effect on customer loyalty	B=-0.64, p<0.01	Unsupported
H3: Responsiveness has a significant positive effect on customer loyalty	B=-0.891, p<0.01	Unsupported
H4: Assurance has a significant positive effect on customer loyalty	B=1.702, p<0.01	Supported
H5: Empathy has a significant positive effect on customer loyalty	B=0.164, p<0.01	Supported

Firstly, on the question of whether students often choose fast food as a dining option and show reliance and trust in fast food food and service, the findings show a relatively high level of trust and reliance among respondents. It was further shown that the majority of students were more inclined to agree with this statement, highlighting a strong base of customer loyalty. This finding suggests that the Western fast food industry has a high market share in meeting the dining needs of university students and its service quality is recognized by them. However, this result may be influenced by factors such as the fast pace of students' lives and the pressure of coursework, which make them more inclined to choose convenient and fast food as a dining option.

Second, on the question of whether students frequent fast food restaurants and recommend their food or services to friends and family, the findings show a slightly lower degree of consistency compared to the first item, suggesting differences in the degree of students' positive involvement in word-of-mouth publicity, and the results also indicate a moderate tendency for students to recommend fast food restaurants to others. This finding suggests that although the Western fast food industry has a high market share among college students, its word-of-mouth communication could be improved. This may be due to the fact that college students have some concerns about the healthiness and nutritional value of fast food, which affects their willingness to recommend it to others.

Thirdly, on the question of whether students still tend to choose their favorite fast food brand even if other fast food is running promotions, the findings show that the mean is the highest among the four themes, indicating a high level of brand loyalty and the ability to withstand the temptation of promotions from other brands. This reinforces the idea that a large portion of the student body is committed to their favorite fast food brand. This finding suggests that Western fast food brands have a high level of loyalty among college students and are able to withstand competitors' promotions. This may be due to the fact that college students have some emotional identification with their favorite brands, for which they are more willing to pay higher prices.

Finally, on the question regarding the duration of students' attention and support for fast food, the findings show that loyalty persists over time and the findings support that the majority of respondents' loyalty is not fleeting. This finding suggests that the Western fast food industry has a high degree of stability and continuity in the college student market. However, this result may be influenced by factors such as changes in students' life stages and adjustments in their eating habits, which make their attention and support for fast food change.

5.2 Recommendation for future study

5.2.1 Practical recommendations

This study delves into the relationship between college students' perceptions of service quality and customer loyalty in the local fast food industry, and proposes some strategic recommendations aimed at increasing the fast food industry's loyalty in the college student market. In order to further enhance the customer loyalty of the fast food industry in the university student market, this study makes the following recommendations:

Improvement of service quality: Enterprises should have an in-depth understanding of the consumption needs of university students and provide more personalized and attentive services. By improving service quality, customer satisfaction and loyalty can be enhanced. In addition, enterprises should strengthen staff training to

enhance their service awareness and skills to ensure that every customer can enjoy a quality service experience.

Strengthening branding: Branding is an important bridge of communication between enterprises and consumers. Enterprises should improve brand awareness and reputation through effective brand communication strategies. At the same time, enterprises can strengthen interaction with consumers and build a positive brand image by organizing various activities. For example, it can co-operate with colleges and universities to organize campus promotion activities to increase brand awareness among college students.

Innovative products and services: Enterprises should pay attention to the consumption needs and habits of university students and constantly innovate and improve their products and services. For example, more healthy and nutritious fast food products can be introduced to meet college students' demand for healthy diets. In addition, enterprises can also improve the dining experience through the introduction of new technologies and new formats to attract more college students.

Improving the effectiveness of word-of-mouth communication: Word-of-mouth communication is an important factor influencing consumer decision-making. Enterprises should encourage and incentivise college students to participate in word-of-mouth communication to improve the popularity and reputation of fast food restaurants. For example, they can launch a refer-a-friend offer to encourage college students to recommend their favourite fast food restaurants to friends and family. Meanwhile, enterprises can also make use of social media platforms to strengthen interaction with consumers and expand brand influence.

Focusing on social responsibility: Enterprises should assume social responsibility and pay attention to food safety and environmental protection. For example, they can adopt green packaging to reduce the impact on the environment. In addition, enterprises can also actively participate in public welfare activities to enhance their brand image. College students, as a group of people with high moral values and sense of social responsibility, have a high degree of identification with the social responsibility behaviors of enterprises, which will help increase their loyalty to the fast food industry.

5.2.2 Theoretical contribution

The findings of this research make several theoretical contributions to the understanding of service quality and customer loyalty in the fast food industry. Firstly, the study highlights the importance of specific service quality dimensions, such as tangibility, reliability, responsiveness, assurance, and empathy, in influencing customer satisfaction and loyalty. By examining these dimensions separately, the research provides a nuanced understanding of how each aspect contributes to overall customer perceptions and behaviors.

Secondly, the study extends existing literature by comparing service quality and customer loyalty between Western and local fast food sectors. By analyzing differences in ratings and identifying areas for improvement in both segments, the research sheds light on the unique challenges and opportunities faced by each sector. This comparative approach adds depth to our understanding of how contextual factors, such as cultural differences and market dynamics, influence customer perceptions and behaviors.

Thirdly, the research contributes to the theoretical framework by examining the impact of service quality dimensions on customer loyalty in the fast food industry. By conducting regression analysis, the study identifies which dimensions have a significant effect on customer satisfaction and loyalty, providing insights into the relative importance of each dimension in driving customer behaviors. This empirical evidence enriches theoretical models of service quality and customer loyalty by validating the relationships proposed in existing literature.

Finally, the study emphasizes the need for fast food companies to adopt a holistic approach to service quality management. By addressing all dimensions of service quality, including tangibility, reliability, responsiveness, assurance, and empathy, companies can enhance overall customer satisfaction and loyalty. This holistic perspective aligns with the service-profit chain theory, which posits that improvements in service quality lead to higher customer satisfaction, which in turn drives profitability and growth (Heskett et al., 1994). Thus, the research provides practical guidance for managers in the fast food industry to develop comprehensive strategies for enhancing service quality and fostering customer loyalty.

5.3.3 Future research recommendation

1. This study found that college students' attitudes and preferences toward the fast food industry are influenced by a variety of factors, including cultural, social, and economic factors. Through random interviews with college students, gender and grade level factors were found to have a significant impact on loyalty to the fast food industry. Female college students generally showed higher loyalty to the fast food industry, which may be related to the fact that women pay more attention to appearance, taste and healthiness in food selection. And with higher grades, college students' loyalty to the fast food industry gradually decreases, which may be due to the fact that higher grades pay more attention to dietary health and rely less on fast food. As health awareness increases, more and more college students are seeking healthy and nutritious dining options. Therefore, fast food business operators need to pay attention to these trends and adjust their products and services to meet these changing needs.

2. To further deepen the understanding of loyalty in the college market, future research could explore the following areas:

1) Influence of cultural and social factors: to study the attitudes and behaviors of university students in different cultures towards the fast food industry, and to explore how cultural differences affect service quality and customer loyalty in the fast food industry.

2) Consideration of economic factors: To analyse how economic factors, such as students' financial status and spending power, affect their loyalty to the fast food industry and how companies can attract students from different economic backgrounds through pricing strategies.

3) Application of technology and innovation: examines how the fast food industry is using technological innovations, such as mobile payments, online ordering platforms and social media, to enhance the customer experience and boost loyalty.

4) Long-term follow-up studies: Long-term follow-up studies are conducted to monitor and evaluate the effectiveness of the proposed strategies and recommendations in practice and how changes in the market and consumer demand affect the effectiveness of these strategies.

This study reveals the relationship and impact of service quality level and customer loyalty of the fast food industry in the college student market, which can provide a more comprehensive understanding of college students' attitudes and behaviors towards the fast food industry, and thus provide the fast food industry with more effective market strategies and service improvement suggestions. The results of the study have certain theoretical and practical significance for the development of western and local fast food industry. However, there are still some limitations in this study, such as limited sample scope and single survey method. Future research can expand and deepen on this basis, such as expanding the sample scope and introducing more research methods, with a view to providing more valuable references for the development of the local fast food industry.

References

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice-Hall.

Aksoy, L., Keiningham, T. L., Buoye, A., Larivière, B., Williams, L., & Wilson, I. (2015). Does loyalty span domains? Examining the relation- ship between consumer loyalty, other loyalties and happiness. *Journal of Business Research, 68*, 2464-2476.

Babakus, E., & Boller, G. W. (1992). An empirical assessment of the servqual scale. *Journal of Business Research,* 24, 253-268.

Berry, L. L., & Parasuraman, A. (1991). *Marketing services: Competing through quality*. The Free Press.

Blattberg, R. C., & Sen, S. (1994). Consideration sets in the consumer decision process. *Marketing Science, 13*(1), 14-22.

Cadogan, J. W., Diamantopoulos, A., & De Mortanges, C. P. (1999). A measure of export market orientation: Scale development and cross cultural validation. *Journal of International Business Studies, 30,* 689 - 707.

Dabholkar, P. A. (1996). Consumer evaluations of new technology-based self-service options: an investigation of alternative models of service quality. *International Journal of Research in Marketing*, *13*, 29-51.

Dick, A. S., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science, 22*(2), 99-113.

Dong Huanxi, Dong Manchun. (2006). A literature review on customer loyalty research both domestically and internationally. *Economic & Trade Update*, *4*(Sum 49).

Easterlin, R.A. (2001). Income and happiness: Towards a unifiedtheory. *Economic Journal*, *111*, 465-484.

François A. (2007). The validity of the SERVQUAL and SERVPERF scales. *International Journal of Service Industry Management*, *18*(5), 472-490.

Garma, R., & Bove, L. L. (2011). Contributing to well-being: customer citizenship behaviors directed to service personnel. *Journal of Strategic Marketing*, *19*, 633-649.

Geng, Rong. (2020). Imitation innovation and future direction of local Western fast food enterprises---Taking Wallace and Dicos as an example in Nanjing Area. *Chinese and Foreign Entrepreneurs, 2020*(18).

Glenn, D. Israel. (1992). *Determining Sample Size,* University of Florida.

Gremler, D. D., & Brown, S. W. (1996). Service loyalty: Its impact on service provider profits. *Journal of Services Marketing, 10*(6), 25-35.

Griffin, J. (2002). *Customer loyalty: Insights from the experts*. Wiley.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modelling (PLS-SEM)* (2nd ed.). Los Angeles, CA: SAGE.

Huang, Zhen. (2019). A comparative study of the effect of Chinese and Western fast food service quality on customer loyalty. *A Development Study, 2019*(04).

Jacoby, J., & Chestnut, R. W. (1978). *Brand loyalty: Measurement and management*. Wiley.

Kotler, P., & Keller, K. L. (2012). *Marketing management* (14th ed.). Pearson.

Lazarus, R. S. (1991). *Emotion and adaptation*. Oxford University Press.

Li, Chenlu. (2023). Analysis of the current situation and future trends of the fast food industry. *Enterprise Reform and Management, 2023*(12).

Li, Qing. (2018) .McDonald's marketing strategy in China under the background of consumer upgrading. *Business Economics Research,* 4.

Luo, Xing. (2008). Quality control in chain operations. *Enterprise Reform and Management*, 9.

MacKenzie, S. B., Podsakoff, P. M., & Jarvis, C. B. (2005). The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions. *Journal of Applied Psychology*, *90*, 710-729.

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing, 58*(3), 20-38.

Neal, J. D., Uysal, M., & Sirgy, M. J. (2007). The effect of tourism services on travelers' quality of life. *Journal of Travel Research*, *46*, 154-163.

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing,* 63(Special Issue), 33-44.

Orth, U. R., Limon, Y., & Rose, G. (2010). Store-evoked affect, personalities, and consumer emotional attachments to brands. *Journal of Business Research, 63,* 1202-1208.

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

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1991). Refinement and reassessment of the SERVQUAL scale. *journal of Retailing*, *67*(4), 420-450.

Reichheld, F. F. (1996). *The loyalty effect: The hidden force behind growth, profits, and lasting value*. Harvard Business Press.

Reichheld, F. F., & Schefter, P. (2000). E-loyalty: Your secret weapon on the web. *Harvard Business Review*, *78*(4), 105-113.

Riadh, Ladhari. (2009). A review of twenty years of SERVQUAL research. *International Journal of Quality and Service Sciences*, *1*(2), 172 - 198.

Rindfleisch, A., Malter, A. J., Ganesan, S., & Moorman, C. (2008). Cross- sectional versus longitudinal survey research: Concepts, findings, and guidelines. *Journal of Marketing Research, 45,* 261-279.

Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with PLS and CBSEM: Where the bias lies! *Journal of Business Research*, *69*, 3998-4010.

Shi, Lijie. (2012). Analysis of ways to improve McDonald's customer loyalty. *Modernization of Shopping Mall,* 702.

Sunghyup, Sean Hyun. (2010). Predictors of relationship quality and loyalty in the chain restaurant industry. *Cornell Hospitality Quarterly, 51*(2), 251-267.

Sylvie, L., Jean-Louis, C., & Chiara, Orsingher. (1998). An empirical study of servqual's dimensionality. *The Service Industries Journal*, 18(2), 16-44.

Taeshik, G., & Youjae, Yi. (2018). The effect of service quality on customer satisfaction, loyalty, and happiness in five Asian countries. *Psychol Mark*, 1-16.

Tax, S. S., & Brown, S. W. (1998). Recovering and learning from service failures. *Sloan Management Review, 40*(1), 75-88.

Taylor, S. A., & Baker, T. L. (1994). An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. *journal of Retailing*, *70*, 163-178.

Tucker, L. R., & Lawrence, J. E. (1982). A model of brand loyalty. *Journal of Marketing Research, 19*(3), 248-261.

Voorhees, C. M., Brady, M. K., Calantone, R., & Ramirez, E. (2016). Discrim-inant validity testing in marketing: an analysis, causes for concern, and propose dremedies. *Journal of the Academy of Marketing Science*, *44*, 119 - 134.

Williams, L. J., & Anderson, S. E. (1994). An alternative approach to method effects by using latent-variable models: Applications in organizational behaviour research. *Journal of Applied Psychology*, *79*, 323-331

Yi, Y., & Gong, T. (2008). The electronic service quality model: The moderating effect of customer self-efficacy. *Psychology & Marketing*, *25*, 587 - 601.

Yong-Ki Lee, Ki-Joon Back, &Jin-Young Kim. (2009) Family restaurant brand personality and its impact on customer's emotion, satisfaction, and brand loyalty. *Journal of Hospitality & Tourism Research*, *33*(3), 305-328 .

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing, 60*(2), 31-46.

Zhou, Ying. (2018). Analysis of market competition strategies of local Western fast food enterprises in China. *Modern Marketing (Business Edition)*, (05).

Appendix

Research Questionnaire
The effect of service quality on customer loyalty in the fast food industry

Dear Sir/Madam：

Thank you for taking time out of your busy schedule to participate in our survey. The purpose of this survey is to find out your opinion on service quality and customer loyalty in the fast food industry. Please note that there are no right or wrong answers and we value your honest opinion.

This survey is anonymous and your answers will be used for academic research purposes only. We assure you that all personal information will be kept strictly confidential.
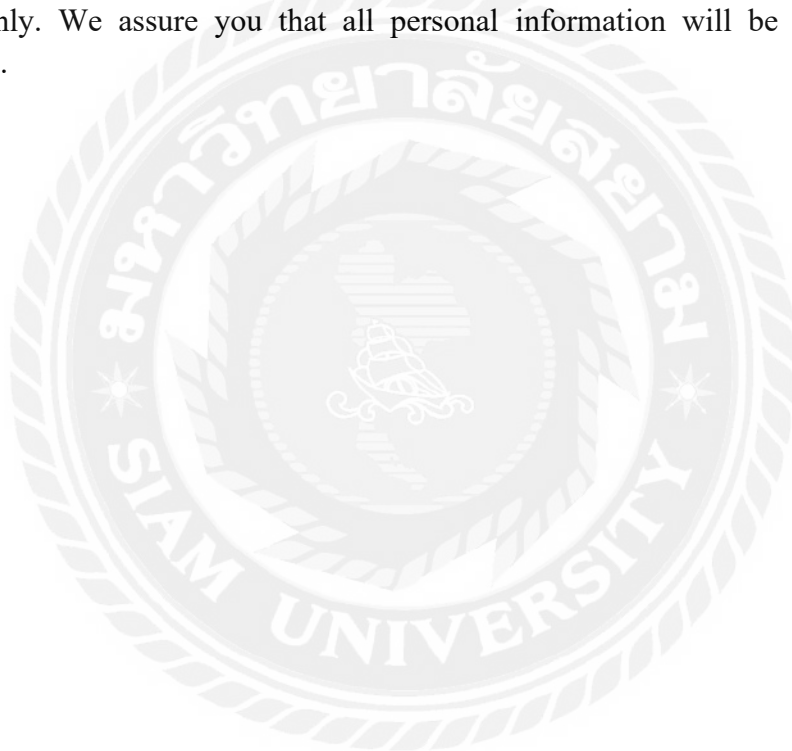
Part Ⅰ Customer Information

1. Gender:

   □ Male   □ Female

2. Age:

   □ Under 20 years old   □ 21-25 years old

   □ 26-29 years old   □ 30+ years old

3. Education:

   □ Bachelor's degree   □ Master's Degree

   □ Doctoral degree   □ Doctoral degree or above

4. In the previous six months, you patronised the following Western fast food restaurants (check more than one):

   □ McDonald's   □ KFC   □ Pizza Hut

   □ Hamburger

Part II

A series of questions on **service quality**, please read carefully and select your level of satisfaction with each service quality attribute based on your feelings. The scale ranges from "1-5" for strongly disagree, disagree, indifferent, agree and strongly agree.

Questions	Western Fast Food				
	Very Disagree (1)	No Agree (2)	Indiffe-rent (3)	Agree (4)	Strongly Agree (5)
Tangibles					
1. How modern do you think the restaurant equipment of fast food is?					
2. What is your opinion of the attractiveness of the dining environment and in-store facilities of fast food?					
3. Do you think that fast food service staff are neatly and appropriately dressed?					
4. Do you think that the hardware of fast food matches the service provided by the service staff?					
5. Are you satisfied that Fast Food fulfills its service commitments in a timely manner?					
6. How helpful were the staff when you had trouble with fast food?					
Reliability					
7. Do you trust the food and service of fast food?					
8. Are you satisfied with the fast food service and do you think it was done right the first time?					
9. Do you think that the ordering and delivery service of fast food is accurate?					
10. Are you satisfied with the waiting time you were informed of by the fast food?					
Responsiveness					
11. Are you satisfied with the speed of service provided by the fast food staff?					
12. Do you think that fast food employees are self-motivated and proactive in their service?					

13. How satisfied are you with the eagerness of fast food employees to answer questions?					
14. Do you trust fast food workers?					
Assurance					
15. Do you feel reassured and safe in your dealings with fast food?					
16. How satisfied are you with the courtesy of the fast food staff?					
17. Are you satisfied that fast food employees have sufficient knowledge to answer questions?					
Empathy					
18. Do you think fast food has some humanized service system or measures?					
19. Are you satisfied with the care given by fast food staff to special customers?					
20. Are you satisfied that the fast food staff is able to understand the needs of the customers through observation in a timely manner?					
21. Do you think that fast food can meet your needs?					
22. Are you satisfied with the opening hours of fast food and do you think they are convenient for most customers?					

Part III

A series of questions on **customer loyalty.** Please read carefully and select your level of satisfaction with each customer loyalty attribute based on your feelings. The scale ranges from "1-5" for strongly disagree, disagree, indifferent, agree and strongly agree.

Questions	Western Fast Food				
	Very Disagree (1)	No Agree (2)	Indiffe-rent (3)	Agree (4)	Strongly Agree (5)
Customer Loyalty					
23 . Do you regularly choose fast food as a dining location and demonstrate a high level of reliance and trust in our food and service?					
24. Do you frequent fast food and actively recommend our food or services to your friends and family?					
25. Do you still prefer your fast food brand even when other fast food restaurants are running promotions?					
26. Has your interest in and support for fast food been ongoing for some time?					

The investigation is now closed.

Thanks again for your participation and valuable input.