

Final Project 2

PMG 497

Project Template

Midocean University

Faculty of Management

Department/ Specialization General Administration



The Impact of Customer Service Quality on the Level of Customer Satisfaction and Loyalty in Service Organizations

Student name

Rawan Al-Shahrani

Final Project - 2

Faculty of Management - Midocean University

Supervisor

Dr. Abdulrahim Nader

Faculty member - Faculty of Management - Midocean University

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1. Chapter 1: Introduction

1.1. Research Background

In today's highly competitive and rapidly evolving business environment, organizations are increasingly focusing on improving the quality of services they provide in order to attract, satisfy, and retain customers. The growth of the service sector and the increasing expectations of customers have made service quality a fundamental factor for organizational success. Customers today are more informed and have a wide range of alternatives available, which means that organizations must continuously improve their services to remain competitive. Consequently, service quality has become a strategic priority for many service organizations seeking to build strong relationships with their customers and maintain a sustainable competitive advantage.

Service quality is generally defined as the organization's ability to deliver services that meet or exceed customer expectations. When customers receive services that are reliable, responsive, and delivered professionally, they tend to develop positive perceptions toward the organization. These perceptions significantly influence customers' evaluations of their service experience and determine whether they will continue interacting with the organization in the future. High-quality services not only enhance the overall customer experience but also contribute to improving organizational performance, reputation, and long-term sustainability.

Customer satisfaction is widely recognized as one of the most important outcomes of service quality. Customer satisfaction refers to the degree to which customers feel that their expectations and needs have been fulfilled by the services provided. When customers perceive that the services offered by an organization meet or exceed their expectations, they are more likely to feel satisfied with their experience. Previous studies have demonstrated that service quality plays a crucial role in shaping customer satisfaction and influencing customers' behavioral intentions toward a company (Shrestha, 2021). In other words, when organizations provide high-quality services, customers are more likely to evaluate their experiences positively and develop favorable attitudes toward the organization.

Moreover, customer satisfaction plays an important role in building trust and long-term relationships between customers and service providers. Satisfied customers tend to trust the organization and feel confident in its ability to consistently deliver high-quality services. This trust encourages customers to continue using the organization's services and strengthens the relationship between customers and the organization. Research indicates that satisfied customers are more likely to become loyal customers who repeatedly purchase services, recommend the organization to others, and

maintain long-term relationships with the service provider (Akbar & Parvez, 2009). Therefore, customer satisfaction is considered a key driver of customer loyalty and long-term organizational success.

Customer loyalty has become one of the most valuable assets for service organizations because loyal customers contribute significantly to organizational growth and stability. Loyal customers tend to maintain long-term relationships with the company, make repeated purchases, and often act as advocates who promote the organization through positive word-of-mouth. In addition, retaining existing customers is generally more cost-effective than acquiring new customers, which further highlights the importance of customer loyalty for service organizations. For this reason, many organizations focus on improving service quality as a way to increase customer satisfaction and ultimately strengthen customer loyalty.

Several empirical studies have confirmed the strong relationship between service quality, customer satisfaction, and customer loyalty. For instance, research conducted by Supriyanto, Wiyono, and Burhanuddin (2021) demonstrated that improvements in service quality significantly increase customer satisfaction, which subsequently leads to higher levels of customer loyalty. Similarly, other studies have emphasized that service quality influences customer loyalty both directly and indirectly through the mediating role of customer satisfaction (Adelia & Purnama, 2025). These findings highlight the importance of understanding how service quality contributes to creating positive customer experiences and strengthening long-term customer relationships.

Furthermore, recent studies emphasize that organizations that prioritize service quality are better able to improve customer satisfaction and build stronger relationships with their customers. For example, Kurniawan et al. (2025) found that high levels of service quality significantly enhance customer satisfaction and play a critical role in strengthening customer loyalty. Likewise, Yum and Yoo (2023) reported that service quality has a significant impact on customer loyalty through customer satisfaction, particularly in digital service environments such as mobile social media platforms. These findings suggest that improving service quality remains an essential strategy for organizations operating in both traditional and digital service contexts.

Despite the growing recognition of the importance of service quality, many service organizations still face challenges in consistently delivering services that meet customer expectations. Differences in service delivery, employee performance, and organizational processes may lead to variations in service quality that affect customer satisfaction and loyalty. Therefore, understanding the relationship between

service quality, customer satisfaction, and customer loyalty is essential for organizations seeking to improve their service performance and maintain strong relationships with their customers.

Given the increasing importance of customer-centered strategies in modern service organizations, examining the impact of service quality on customer satisfaction and customer loyalty has become an important area of research. Understanding these relationships can help organizations develop more effective service strategies, improve the quality of customer experiences, and enhance their competitive position in the market. Therefore, this study aims to examine the impact of service quality on customer satisfaction and customer loyalty in service organizations, highlighting how improving service quality can enhance customer experiences and strengthen long-term organizational success.

1.2. Research Problem

In the modern service economy, organizations face increasing competition and rapidly changing customer expectations. Customers today expect high-quality services, quick responses, and professional interactions when dealing with service providers. However, many service organizations still struggle to consistently deliver services that meet or exceed customer expectations. When service quality is poor or inconsistent, customers may experience dissatisfaction, which can negatively affect their trust in the organization and reduce their willingness to continue using its services.

One of the major challenges faced by service organizations is maintaining high levels of customer satisfaction and loyalty. Customer satisfaction is strongly influenced by the quality of service provided, and dissatisfaction often occurs when there is a gap between customer expectations and the actual service experience. Studies have shown that service quality is one of the most important factors affecting customer satisfaction and long-term customer relationships (Shrestha, 2021). When customers perceive the service quality as inadequate, they are more likely to switch to competing organizations that offer better service experiences.

Moreover, the lack of attention to service quality may weaken customer loyalty and reduce the organization's competitive advantage. Research indicates that organizations that fail to provide high-quality services may struggle to retain their customers and maintain long-term business success (Supriyanto, Wiyono, & Burhanuddin, 2021). In contrast, organizations that focus on improving service quality can increase customer satisfaction and encourage customers to remain loyal to their services (Kurniawan et al., 2025).

Despite the growing importance of service quality in service organizations, there is still a need to better understand how service quality influences customer satisfaction and how this satisfaction

contributes to building customer loyalty. Therefore, this study seeks to investigate the impact of service quality on customer satisfaction and customer loyalty in service organizations, aiming to provide insights that may help organizations improve their service performance and strengthen their relationships with customers.

1.2.1. Theoretical Gaps

Although many previous studies have examined the relationship between service quality, customer satisfaction, and customer loyalty, several theoretical gaps still exist in the literature. First, many studies focus on the direct relationship between service quality and customer loyalty without sufficiently examining the mediating role of customer satisfaction. Some researchers argue that customer satisfaction acts as a key mechanism that links service quality to customer loyalty, yet this relationship still requires further investigation in different service contexts (Adelia & Purnama, 2025).

Second, previous research has often concentrated on specific industries such as banking, healthcare, or digital services, which limits the generalizability of findings across different types of service organizations. For example, studies such as Supriyanto, Wiyono, and Burhanuddin (2021) investigated service quality within the banking sector, while Yum and Yoo (2023) focused on mobile social media platforms. Therefore, there is a need for further research that examines these relationships in broader service environments to provide a more comprehensive theoretical understanding.

Furthermore, although several studies confirm that service quality significantly influences customer satisfaction and loyalty, the mechanisms through which service quality contributes to long-term customer relationships remain an area that requires additional empirical examination (Kurniawan et al., 2025). Addressing these theoretical gaps can contribute to strengthening the conceptual framework linking service quality, customer satisfaction, and customer loyalty.

1.2.2. Practical Gaps

From a practical perspective, many service organizations still face difficulties in effectively implementing strategies that improve service quality and enhance customer satisfaction. Despite the availability of theoretical models and service quality frameworks, organizations often struggle to translate these concepts into practical actions that improve the customer experience.

In many cases, organizations may focus on operational efficiency or cost reduction while overlooking the importance of delivering high-quality services that meet customer expectations. As a result, customers may experience dissatisfaction, which negatively affects their loyalty and willingness to continue using the organization's services. Studies indicate that improving service quality can

significantly enhance customer satisfaction and encourage long-term loyalty among customers (Shrestha, 2021).

Additionally, managers and decision-makers may lack clear empirical evidence that demonstrates how service quality improvements lead to increased customer satisfaction and loyalty in different service contexts. Therefore, there is a practical need for research that provides insights into how organizations can improve service quality to strengthen customer satisfaction and loyalty, ultimately contributing to better organizational performance (Akbar & Parvez, 2009).

Main Research Question

Based on the identified theoretical and practical gaps, the main research question guiding this study is:

What is the impact of service quality on customer satisfaction and customer loyalty in service organizations?

1.3. Research Significance

This research is important because it contributes to a better understanding of the relationship between service quality, customer satisfaction, and customer loyalty in service organizations. By examining these relationships, the study provides both theoretical and practical contributions that may help researchers and practitioners better understand how service quality influences customer behavior.

1.3.1. At the theoretical level

At the theoretical level, this study contributes to the existing literature on service quality and customer relationship management by providing further empirical evidence on the relationship between service quality, customer satisfaction, and customer loyalty. The study also helps clarify the role of customer satisfaction as a key factor that links service quality to customer loyalty. Previous studies have highlighted the importance of these relationships, but further research is needed to strengthen the theoretical framework and expand understanding in different service contexts (Yum & Yoo, 2023).

Additionally, this research may support the development of future academic studies by providing a conceptual foundation for examining how service quality influences customer behavior and organizational success.

1.3.2. At the practical level

At the practical level, this study provides useful insights for managers and decision-makers in service organizations who aim to improve customer satisfaction and strengthen customer loyalty. By

understanding how service quality influences customer perceptions and behavior, organizations can develop strategies to improve service delivery and enhance the overall customer experience.

Moreover, the findings of this study may help organizations identify key aspects of service quality that contribute most significantly to customer satisfaction and loyalty. This can support managers in designing more effective service strategies that enhance customer relationships and improve organizational competitiveness (Kurniawan et al., 2025).

1.4. Research Questions

Based on the research problem and the theoretical background, this study seeks to answer the following research questions:

1. What is the impact of service quality on customer satisfaction in service organizations?
2. What is the impact of service quality on customer loyalty in service organizations?
3. What is the relationship between customer satisfaction and customer loyalty?
4. Does customer satisfaction mediate the relationship between service quality and customer loyalty in service organizations?

1.5. Research Objectives

The main objective of this study is to examine the impact of service quality on customer satisfaction and customer loyalty in service organizations. The specific objectives of this study are as follows:

1. To examine the impact of service quality on customer satisfaction.
2. To analyze the impact of service quality on customer loyalty.
3. To investigate the relationship between customer satisfaction and customer loyalty.
4. To examine the mediating role of customer satisfaction in the relationship between service quality and customer loyalty.

1.6. Research Hypotheses

Based on the literature and theoretical framework, the following hypotheses are proposed:

H1: Service quality has a significant positive effect on customer satisfaction.

H2: Service quality has a significant positive effect on customer loyalty.

H3: Customer satisfaction has a significant positive effect on customer loyalty.

H4: Customer satisfaction mediates the relationship between service quality and customer loyalty.

1.7. Research Model

The proposed research model explains the relationships among service quality, customer satisfaction, and customer loyalty. Service quality is the independent variable, customer satisfaction is the mediating variable, and customer loyalty is the dependent variable. The model assumes that high service quality increases customer satisfaction and that satisfied customers are more likely to become loyal customers.

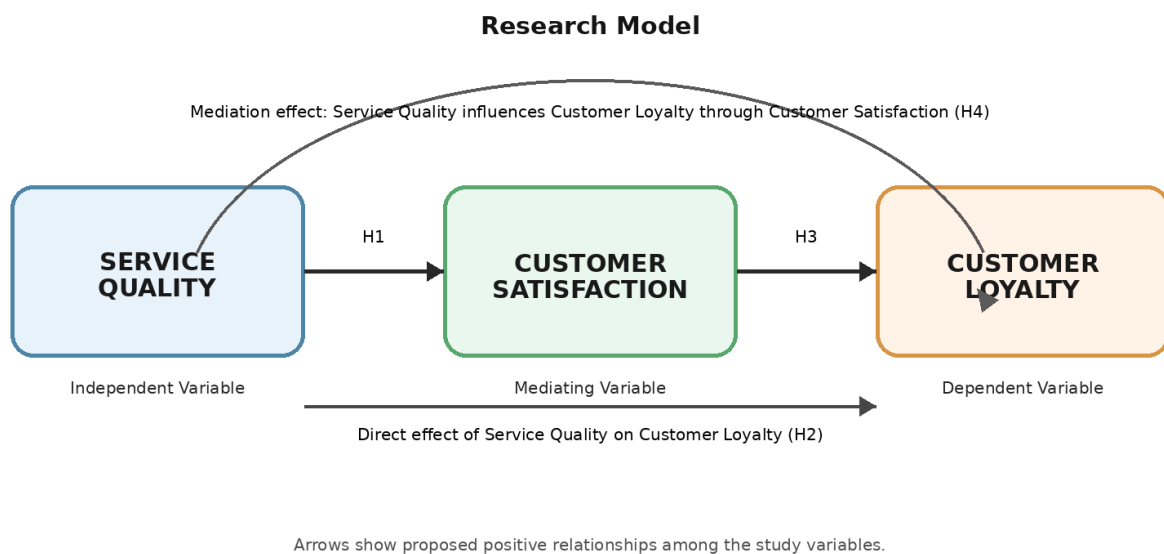


Figure 1. Research model of the study

1.8. Scope of the Study

The scope of this study will focus on examining the relationship between service quality, customer satisfaction, and customer loyalty within service organizations. The study will specifically investigate how service quality influences customer satisfaction and how both variables contribute to customer loyalty.

The research will be limited to customers who have experience interacting with service organizations, as they will be able to evaluate the quality of services they receive. Additionally, the study will focus on three main variables: service quality as the independent variable, customer satisfaction as the mediating variable, and customer loyalty as the dependent variable.

The findings of this study may provide insights into how service organizations can improve service quality to enhance customer satisfaction and strengthen customer loyalty. However, the results may be limited by the sample size, sampling method, and the specific context of the service organizations that will be studied.

1.9. The Project Structure

This research will be organized into several chapters in order to present the study in a clear and systematic manner. The project structure is presented in the following table:

Chapter	Title	Main content
Chapter One	Introduction	Research background, research problem, significance, questions, objectives, hypotheses, model, scope, and project structure.
Chapter Two	Literature Review	Theoretical discussion of service quality, customer satisfaction, customer loyalty, and the relationship between the study variables.
Chapter Three	Research Methodology	Research design, population and sample, data collection method, research instrument, and statistical analysis procedures.
Chapter Four	Statistical Analysis and Findings Discussion	Sample profile, reliability and validity tests, descriptive statistics, hypotheses testing, and discussion of findings.
Chapter Five	Research Limitations, Recommendations, and Conclusion	Limitations, future research directions, practical recommendations, and final conclusion.

Table 1. Project structure and plan

2. Chapter 2: Literature Review

2.1. Introduction

This chapter presents a review of the relevant literature related to the key variables of the study, namely service quality, customer satisfaction, and customer loyalty. The purpose of this chapter is to provide a theoretical foundation that explains the concepts and relationships between these variables, as well as to highlight the findings of previous studies in this area. Understanding these concepts is essential for developing the research framework and supporting the hypotheses proposed in this study.

In the modern service economy, service quality has become a crucial factor that influences how customers evaluate their experiences with organizations. Service organizations must ensure that the services they provide meet or exceed customer expectations in order to achieve high levels of customer satisfaction and maintain long-term relationships with their customers. Previous research has shown that service quality plays a significant role in shaping customer satisfaction and influencing customers' perceptions of the overall service experience (Shrestha, 2021).

Customer satisfaction is considered one of the most important outcomes of service quality. When customers receive services that match their expectations, they are more likely to feel satisfied and develop positive attitudes toward the organization. These positive experiences can strengthen the relationship between customers and organizations, encouraging customers to continue using the services and recommend them to others. According to Akbar and Parvez (2009), customer satisfaction plays a significant role in building trust and encouraging customer loyalty in service organizations.

Furthermore, customer loyalty has become a strategic objective for many organizations because loyal customers contribute to long-term profitability and organizational sustainability. Loyal customers are more likely to maintain long-term relationships with the organization and engage in repeated purchasing behavior. Several studies have confirmed that service quality significantly influences customer loyalty both directly and indirectly through customer satisfaction (Supriyanto, Wiyono, & Burhanuddin, 2021).

Recent research also emphasizes that improving service quality can enhance customer satisfaction and strengthen customer loyalty across different service contexts. For example, Kurniawan et al. (2025) found that service quality plays a critical role in improving customer satisfaction, which subsequently increases customer loyalty. Similarly, Yum and Yoo (2023) highlighted that customer satisfaction acts as an important mediator between service quality and customer loyalty in service environments.

Based on these perspectives, this chapter reviews the theoretical concepts related to service quality as the independent variable, customer satisfaction as the mediating variable, and customer loyalty as the dependent variable. It also discusses the relationship between these variables in order to support the conceptual model proposed in this study.

2.2. The Independent Variable: Service Quality

Service quality is widely recognized as one of the most important factors that influence customer perceptions, satisfaction, and loyalty in service organizations. In the context of service management and marketing, service quality refers to the organization's ability to deliver services that meet or exceed customer expectations. When customers perceive that the service provided is reliable, responsive, and professionally delivered, they are more likely to evaluate the organization positively and develop favorable attitudes toward its services.

Service quality plays a crucial role in determining how customers evaluate their service experiences. Unlike tangible products, services are often intangible and involve direct interaction between customers and service providers. As a result, customers tend to assess service quality based on their experiences during service delivery, including aspects such as responsiveness, reliability, empathy, and assurance. These dimensions help customers determine whether the service meets their expectations and whether the organization is capable of delivering consistent and satisfactory services.

Previous research has emphasized that service quality significantly influences customers' perceptions and behavioral intentions. When organizations provide high-quality services, customers are more likely to feel satisfied with their experiences and develop positive attitudes toward the organization (Shrestha, 2021). High levels of service quality can also strengthen customer trust and enhance the reputation of the organization in the marketplace.

Moreover, service quality has been identified as a key determinant of customer satisfaction and loyalty. Organizations that consistently provide high-quality services are more likely to maintain long-term relationships with their customers and achieve higher levels of customer retention. According to Supriyanto, Wiyono, and Burhanuddin (2021), service quality has a significant impact on customer satisfaction, which subsequently influences customer loyalty and long-term customer relationships.

In addition, improving service quality can help organizations differentiate themselves from competitors and create a competitive advantage in the market. As competition among service organizations continues to increase, customers are becoming more selective in choosing service

providers that offer the best value and service experience. Therefore, organizations must focus on continuously improving service quality in order to meet customer expectations and remain competitive.

Recent studies have further highlighted the importance of service quality in strengthening customer relationships. For example, Kurniawan et al. (2025) found that high levels of service quality significantly enhance customer satisfaction and contribute to increasing customer loyalty. Similarly, Adelia and Purnama (2025) emphasized that service quality has both direct and indirect effects on customer loyalty through the mediating role of customer satisfaction.

Based on these perspectives, service quality is considered the independent variable in this study because it represents the main factor that influences customer satisfaction and customer loyalty. By examining service quality as the independent variable, this research aims to understand how improvements in service quality can lead to higher levels of customer satisfaction and stronger customer loyalty in service organizations.

2.3. Mediating and Dependent Variables: Customer Satisfaction and Customer Loyalty

Customer satisfaction is treated as a mediating variable in this study because it explains how service quality can influence customer loyalty. Customer satisfaction refers to the extent to which customers feel that the services they receive meet or exceed their expectations. When customers perceive that a service organization delivers reliable, responsive, and professional services, they are more likely to feel satisfied with their experience.

Customer satisfaction is closely related to customers' perceptions of value, trust, and service performance. Satisfied customers tend to develop favorable attitudes toward the organization and are more likely to continue using its services. Previous studies have indicated that customer satisfaction is a central mechanism that links service quality to customer loyalty, because customers usually become loyal after they experience consistent satisfaction with the services provided (Akbar & Parvez, 2009; Yum & Yoo, 2023).

Customer loyalty is considered the dependent variable in this study because it represents the final outcome that is influenced by service quality and customer satisfaction. Customer loyalty refers to the customer's commitment to continue using the services of a particular organization and their willingness to recommend those services to others. Loyal customers are more likely to maintain long-term relationships with the organization, repeatedly purchase its services, and demonstrate positive attitudes toward the organization.

In the context of service organizations, customer loyalty is a key indicator of organizational success and sustainability. Organizations that are able to build strong customer loyalty often experience higher levels of customer retention and long-term profitability. Loyal customers not only continue to use the organization's services but also act as advocates who promote the organization through positive word-of-mouth communication. According to Akbar and Parvez (2009), customer loyalty is strongly influenced by factors such as service quality, trust, and customer satisfaction, which together contribute to the development of long-term customer relationships.

Customer loyalty is closely associated with customer satisfaction and service quality. When customers receive high-quality services that meet or exceed their expectations, they are more likely to feel satisfied and develop loyalty toward the organization. Satisfied customers tend to maintain their relationship with the service provider and are less likely to switch to competitors. Previous research has demonstrated that customer satisfaction plays a significant role in strengthening customer loyalty and encouraging customers to continue using the services provided by the organization (Shrestha, 2021).

Furthermore, several empirical studies have confirmed the strong relationship between service quality, customer satisfaction, and customer loyalty. For example, Supriyanto, Wiyono, and Burhanuddin (2021) found that higher levels of service quality lead to greater customer satisfaction, which subsequently enhances customer loyalty. Similarly, Yum and Yoo (2023) emphasized that customer satisfaction acts as an important mediating factor that strengthens the relationship between service quality and customer loyalty.

Based on these perspectives, customer satisfaction and customer loyalty are important variables in this research model. Customer satisfaction explains the process through which service quality affects loyalty, while customer loyalty reflects the final behavioral outcome that service organizations aim to strengthen.

2.4. The Relationship Between the Study Variables

Understanding the relationship between service quality and customer loyalty is essential for service organizations seeking to build long-term relationships with their customers. Service quality is widely recognized as a critical factor that shapes customers' perceptions of the services provided by an organization. When customers perceive that a company consistently delivers high-quality services, they are more likely to develop positive attitudes toward the organization and remain loyal to its services.

Previous studies have emphasized that service quality plays a significant role in influencing customer loyalty both directly and indirectly. High levels of service quality contribute to positive customer experiences, which in turn encourage customers to maintain long-term relationships with the organization. Customers who perceive the service quality as reliable, responsive, and satisfactory are more likely to continue using the organization's services and recommend them to others. According to Shrestha (2021), service quality significantly influences customer satisfaction and loyalty, highlighting the importance of delivering high-quality services to achieve positive customer outcomes.

In addition to the direct relationship between service quality and customer loyalty, many studies have highlighted the mediating role of customer satisfaction in this relationship. Customer satisfaction acts as a bridge that connects service quality to customer loyalty. When customers are satisfied with the quality of services provided, they tend to develop stronger emotional connections with the organization, which increases their likelihood of remaining loyal customers. Akbar and Parvez (2009) argued that service quality and customer satisfaction are key determinants of customer loyalty, as satisfied customers are more likely to maintain long-term relationships with organizations.

Furthermore, empirical studies have demonstrated that improvements in service quality can lead to higher levels of customer satisfaction, which subsequently enhance customer loyalty. For example, Supriyanto, Wiyono, and Burhanuddin (2021) found that service quality has a significant positive impact on customer satisfaction and that satisfied customers are more likely to exhibit loyalty toward the organization. Similarly, Yum and Yoo (2023) emphasized that service quality influences customer loyalty through the mediating role of customer satisfaction, particularly in modern service environments.

Recent research also supports the idea that organizations that prioritize service quality are more capable of building strong and sustainable relationships with their customers. Kurniawan et al. (2025) highlighted that improving service quality significantly enhances customer satisfaction, which ultimately strengthens customer loyalty. Likewise, Adelia and Purnama (2025) reported that service quality has both direct and indirect effects on customer loyalty through customer satisfaction, emphasizing the importance of focusing on service quality to achieve long-term customer loyalty.

Overall, the relationship between service quality and customer loyalty is complex and involves multiple factors, with customer satisfaction playing a crucial mediating role. By delivering high-quality services and meeting customer expectations, organizations can enhance customer satisfaction and strengthen customer loyalty. Therefore, understanding this relationship is essential for service

organizations aiming to improve their service performance and maintain long-term competitive advantages.

2.5. Conclusion

This chapter reviewed the relevant literature related to the key variables of the study, namely service quality, customer satisfaction, and customer loyalty. The chapter provided a theoretical overview of these concepts and highlighted the importance of service quality in shaping customer perceptions, satisfaction, and long-term loyalty in service organizations.

The literature reviewed in this chapter indicates that service quality is a fundamental factor that influences customer satisfaction and loyalty. Organizations that deliver high-quality services are more likely to create positive customer experiences, which enhance customer satisfaction and strengthen long-term relationships with customers. Previous studies have consistently demonstrated that service quality plays a significant role in determining customer satisfaction and encouraging customers to remain loyal to the organization (Shrestha, 2021).

Furthermore, the literature emphasizes that customer satisfaction plays a mediating role in the relationship between service quality and customer loyalty. When customers are satisfied with the quality of services provided, they are more likely to continue using the organization's services and recommend them to others. As noted by Akbar and Parvez (2009), satisfied customers tend to develop trust in the organization, which strengthens their loyalty and long-term commitment.

In addition, empirical studies have confirmed that improving service quality can significantly increase customer satisfaction and enhance customer loyalty. Research by Supriyanto, Wiyono, and Burhanuddin (2021) showed that service quality has a positive influence on customer satisfaction, which subsequently contributes to stronger customer loyalty. Similarly, recent studies emphasize that customer satisfaction acts as a key mechanism through which service quality affects customer loyalty in different service environments (Yum & Yoo, 2023; Kurniawan et al., 2025).

Overall, the literature reviewed in this chapter provides strong theoretical support for the proposed research model, which examines the relationships between service quality, customer satisfaction, and customer loyalty. The findings from previous studies highlight the importance of service quality in enhancing customer satisfaction and strengthening customer loyalty.

3. Chapter 3: Research Methodology

3.1. Introduction

This chapter presents the research methodology used to examine the impact of service quality on customer satisfaction and customer loyalty in service organizations. The chapter explains the operational definitions of the research variables, research design, population and sampling method, data collection method, types of data, and statistical analysis procedures. The purpose of this chapter is to clarify how the study will be conducted and how the research questions and hypotheses will be tested in a systematic and scientific manner.

The methodology adopted in this study is aligned with the quantitative nature of the research problem. Since the study aims to measure relationships among service quality, customer satisfaction, and customer loyalty, a structured questionnaire and statistical analysis procedures are considered appropriate for generating objective and measurable findings.

3.2. Operational Definitions for Research Variables

Operational definitions clarify how each research variable is understood and measured in this study. The following table presents the main variables, their roles in the research model, their operational meanings, measurement dimensions, and questionnaire indicators.

Variable	Role in the study	Operational definition	Main dimensions / indicators	Measurement
Service Quality	Independent variable	The degree to which a service organization delivers services that meet or exceed customer expectations.	Reliability, responsiveness, assurance, empathy, and tangibles	SQ1-SQ10 using a five-point Likert scale
Customer Satisfaction	Mediating variable	The extent to which customers feel that their expectations and needs are fulfilled by the services received.	Overall satisfaction, expectation confirmation, and perceived value	CS1-CS5 using a five-point Likert scale
Customer Loyalty	Dependent variable	The customer's intention to continue using the organization's services and recommend them to others.	Repurchase intention, recommendation, preference, and positive word-of-mouth	CL1-CL5 using a five-point Likert scale
Demographic Profile	Descriptive/control data	Basic characteristics of respondents used to describe the study sample.	Gender, age, education, service type, and usage frequency	Categorical questions D1-D5

Table 2. Operational definitions of research variables

3.3. Research Design (Research Onion)

This study adopts a quantitative research design because it seeks to measure the relationship between service quality, customer satisfaction, and customer loyalty using numerical data. The research follows a deductive approach, as it begins with hypotheses derived from previous literature and then tests these hypotheses using empirical data collected from respondents.

The research design is descriptive and analytical. The descriptive part is used to describe the characteristics of the sample and the level of the study variables, while the analytical part is used to test

the relationships between variables and examine the effect of service quality on customer satisfaction and customer loyalty.

Research onion layer	Selected option	Application in this study
Research philosophy	Positivism	The study depends on objective measurement and statistical testing of relationships between variables.
Research approach	Deductive approach	The study tests hypotheses developed from previous literature and theoretical assumptions.
Methodological choice	Quantitative mono-method	Numerical data will be collected through a structured questionnaire and analyzed statistically.
Research strategy	Survey strategy	A questionnaire will be used to collect data from the target respondents.
Time horizon	Cross-sectional	Data will be collected at one point in time to examine the current relationship between variables.
Sampling technique	Convenience sampling technique will be used because it allows the researcher to reach respondents who are accessible and have relevant service experience.	The technique is selected to access respondents who are relevant to the research topic.
Data analysis	Cronbach's alpha, descriptive statistics, Pearson correlation, multiple regression, and mediation analysis	These procedures will be used to test reliability, describe variables, and examine relationships and effects.

Table 3. Research design according to the Research Onion

3.4. Research Population & Sampling Methods and Technique

The research population consists of customers who have experience using services provided by service organizations. These respondents are suitable for the study because they are able to evaluate the quality of services they receive and express their level of satisfaction and loyalty.

A convenience sampling technique will be used to select participants. This method is appropriate because the study targets respondents who are available, willing to participate, and have relevant experience with service organizations. Although convenience sampling may limit generalizability, it is practical for collecting data within the time and resource limits of the study.

The target population consists of customers who have experience using services provided by service organizations such as banking, telecommunications, healthcare, education, and other service providers.

The sampling method will be as follows: convenience sampling technique will be used because it allows the researcher to reach respondents who are accessible and have relevant service experience.

3.5. Data Collection Method

Data will be collected through a structured questionnaire. The questionnaire will include demographic questions and items designed to measure service quality, customer satisfaction, and customer loyalty. A five-point Likert scale ranging from strongly disagree to strongly agree will be used to measure respondents' perceptions.

The questionnaire will be prepared in a clear and simple format to ensure that respondents can understand and answer all items accurately. The items will be based on concepts and measures discussed in the literature review to support content validity.

The main data collection instrument will be a structured questionnaire consisting of demographic questions and measurement items for service quality, customer satisfaction, and customer loyalty.

3.6. Types of Data

This study will use both primary and secondary data. Primary data will be collected directly from respondents through the questionnaire. These data will provide direct evidence about respondents' perceptions of service quality, customer satisfaction, and customer loyalty.

Secondary data will be obtained from books, journal articles, previous empirical studies, and academic references related to service quality, customer satisfaction, and customer loyalty. These sources will support the theoretical framework and help interpret the empirical findings.

3.7. Statistical Analysis Procedures

After the questionnaires are collected, the data will be coded and entered into statistical software such as SPSS. The analysis will include both descriptive and inferential statistical procedures. The purpose of these procedures is to summarize the sample profile, test the quality of the measurement instrument, and examine the research hypotheses.

Statistical procedure	Purpose	Application in this study
Data coding and screening	To prepare the dataset and identify missing or invalid responses.	All questionnaire responses will be coded according to the five-point Likert scale and checked before analysis.
Frequency and percentage	To describe demographic characteristics of respondents.	Used for gender, age, education, experience, and other categorical variables.
Mean and standard deviation	To describe the level of each research variable.	Used to summarize respondents' perceptions of the main study variables.
Cronbach's alpha	To test internal consistency reliability.	A value of 0.70 or above will be considered acceptable for the questionnaire scales.
Pearson correlation	To examine the strength and direction of relationships between variables.	Used to test whether the main variables are positively and significantly related.
Regression analysis	To test the effect of the independent variable on the dependent variable.	Used to examine the research hypotheses and determine the predictive power of the model.
Mediation analysis	To examine whether the mediating variable explains the relationship between the independent and dependent variables.	Used to test the mediating role of Customer Satisfaction.

Table 4. Statistical analysis procedures

3.8. Conclusion

This chapter presented the methodological procedures that will be used to conduct the study. It clarified the operational definitions of the variables, research design, population, sampling technique, data collection method, types of data, and statistical procedures. These methodological steps provide a

clear foundation for the next stage of the research, which will involve analyzing the collected data and testing the proposed hypotheses.

4. Chapter 4: Statistical Analysis and Discussion of Results

4.1. Introduction

This chapter presents the statistical analysis and discussion of the questionnaire data collected for the study entitled The Impact of Customer Service Quality on the Level of Customer Satisfaction and Loyalty in Service Organizations. The chapter reports data preparation procedures, demographic characteristics of the respondents, reliability and validity assessment, descriptive statistics, correlation analysis, hypotheses testing, and interpretation of the findings in relation to the research objectives.

The analysis is based on 16 complete questionnaire responses. The questionnaire used a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Higher mean scores indicate stronger agreement with the statements and more positive perceptions of service quality, customer satisfaction, and customer loyalty.

4.2. Data Preparation and Analysis Strategy

The raw Excel dataset was reviewed before analysis. All submitted responses indicated consent to participate and were retained for analysis. The categorical demographic variables were summarized using frequencies and percentages. The Likert-scale items were coded from 1 to 5 and grouped into three constructs according to the research model: service quality, customer satisfaction, and customer loyalty.

Procedure	Result
Source responses	16 questionnaire responses
Valid analytical responses	16 complete cases
Analytical items	16 Likert-scale items
Measurement scale	Five-point Likert scale
Main statistical procedures	Frequencies, percentages, means, standard deviations, Cronbach's alpha, item-total correlations, Pearson correlations, regression, and bootstrapped mediation analysis

Table 7. Data preparation and analysis strategy

4.3. Sample Characteristics

Table 8 summarizes the demographic profile of the respondents. The sample consisted of 16 respondents. Females represented the majority of the sample (62.5%), while males represented 37.5%. In terms of age, half of the respondents were between 20 and 29 years old, followed by respondents aged 30-39 years. Most respondents held a bachelor's degree, and the most frequently used service organizations were telecom and banking organizations.

Variable	Category	Frequency	Percentage
Gender	Female	10	62.5%
	Male	6	37.5%
Age Group	20-29	8	50.0%
	30-39	5	31.2%
	40-49	2	12.5%
	Under 20	1	6.2%
Educational Level	Bachelor	13	81.2%
	High school or less	2	12.5%
	Diploma	1	6.2%
Service Use Frequency	Often	9	56.2%
	Sometimes	3	18.8%
	Very often	2	12.5%
	Rarely	2	12.5%
Service Organization Type	Telecom	5	31.2%
	Banking	5	31.2%
	Education	3	18.8%
	Healthcare	2	12.5%
	Other	1	6.2%

Table 8. Demographic characteristics of respondents

Demographic Profile of Respondents (N = 16)

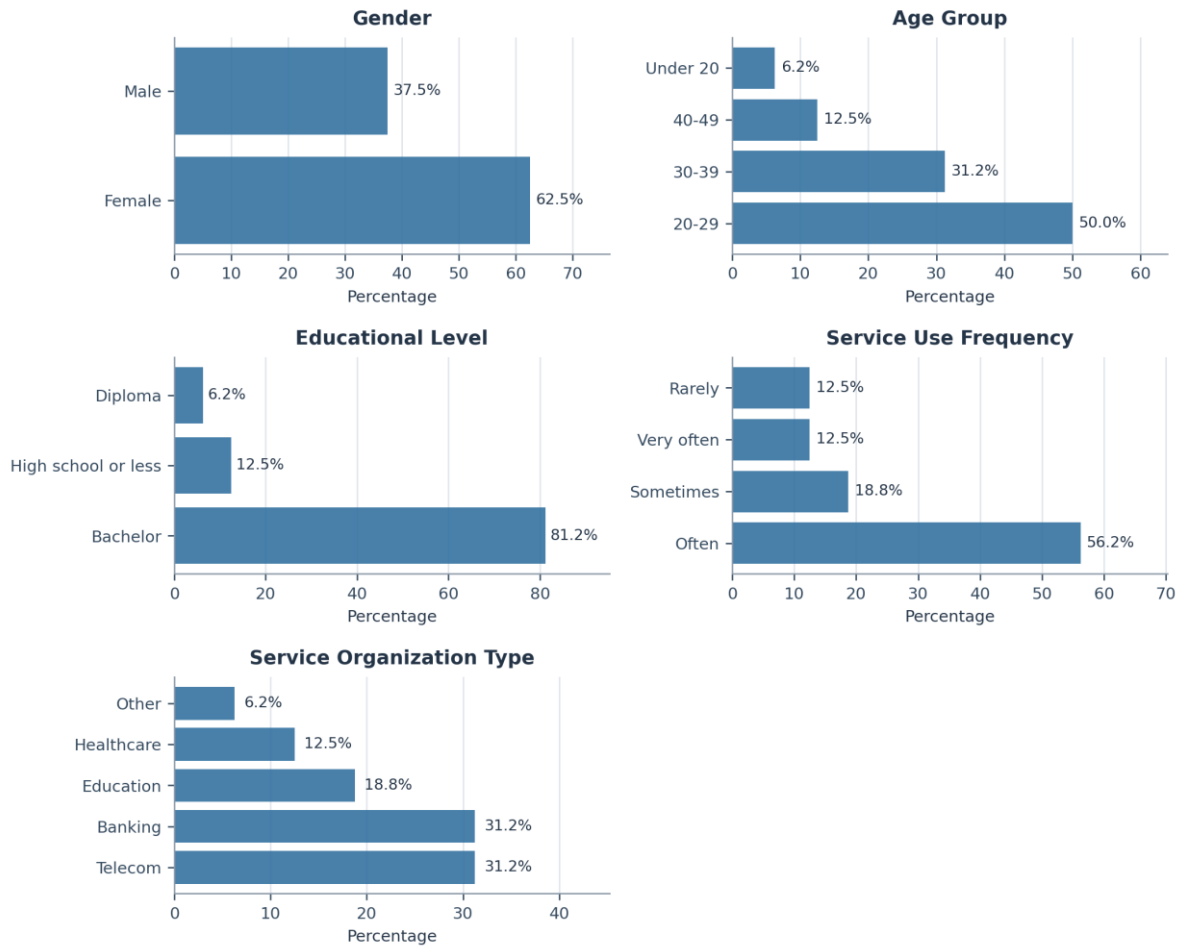


Figure 2. Demographic profile of respondents

Figure 2 visualizes the main demographic distributions in the sample. The chart shows that the respondents were mainly female, mostly aged 20-29, and largely educated at the bachelor level.

4.4. Reliability and Validity Assessment

Reliability was assessed using Cronbach's alpha. Table 9 shows that all constructs achieved excellent reliability values. Service quality recorded an alpha value of .979, customer satisfaction recorded .974, and customer loyalty recorded .960. The alpha value for all analytical items was .986, indicating strong internal consistency across the questionnaire items.

Construct	No. of items	Cronbach's alpha	Reliability level
Service Quality	6	0.979	Excellent
Customer Satisfaction	5	0.974	Excellent
Customer Loyalty	5	0.960	Excellent
All analytical items	16	0.986	Excellent

Table 9. Reliability statistics for the questionnaire scales

Construct validity was examined using corrected item-total correlations. All item-total correlations were positive and exceeded the commonly accepted minimum threshold of .30, which indicates that the items were consistent with the constructs they were intended to measure. Because the sample size was small, exploratory factor analysis was not used; instead, reliability coefficients, item-total correlations, and theoretically consistent inter-construct correlations were used as validity evidence.

Construct	Lowest item-total r	Highest item-total r	Interpretation
Service Quality	0.845	0.981	Acceptable construct validity
Customer Satisfaction	0.893	0.954	Acceptable construct validity
Customer Loyalty	0.769	0.959	Acceptable construct validity

Table 10. Item-total validity assessment

4.5. Descriptive Statistics of the Study Variables

Descriptive statistics were calculated to assess respondents' perceptions of the main study variables. Table 11 shows that all constructs achieved high mean scores. Customer loyalty recorded the highest mean score ($M = 3.76$), followed by service quality ($M = 3.68$) and customer satisfaction ($M = 3.60$). These findings suggest that respondents generally evaluated the service organizations positively.

Construct	N	Mean	SD	95% CI for mean	Level
Service Quality	16	3.68	1.31	[2.98, 4.38]	High
Customer Satisfaction	16	3.60	1.28	[2.92, 4.28]	High
Customer Loyalty	16	3.76	1.16	[3.15, 4.38]	High

Table 11. Descriptive statistics of the main study variables

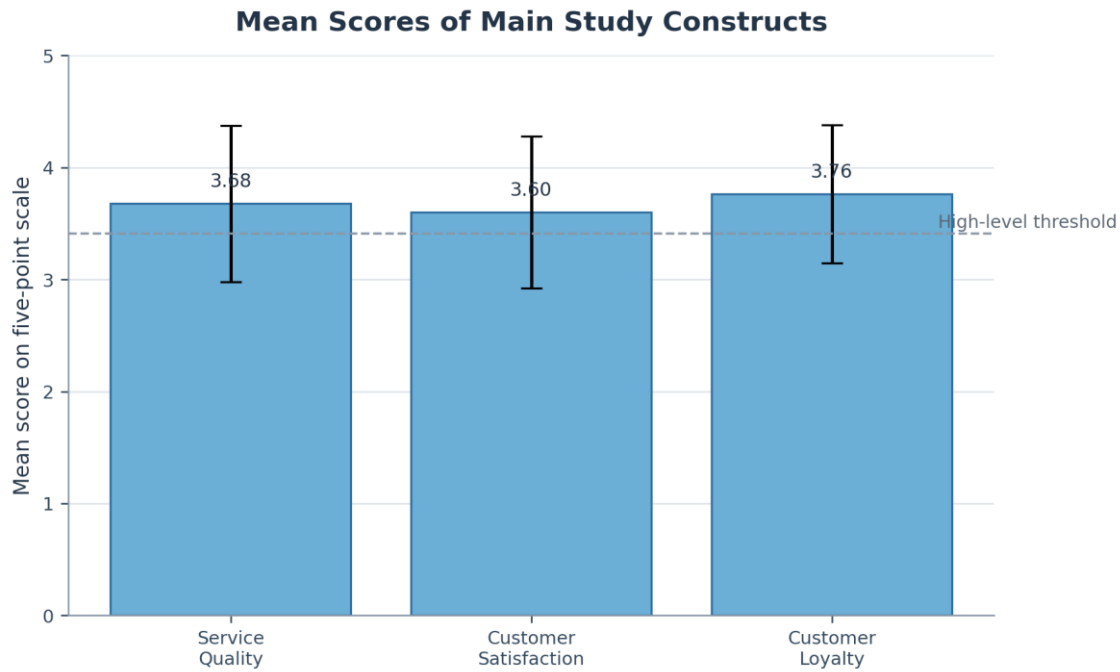


Figure 3. Mean scores of the main study constructs

Figure 3 confirms that the three main constructs were evaluated at a high level. The confidence intervals show variation around the mean, but all construct means remain above the high-level threshold.

4.6. Correlation Analysis

Pearson correlation analysis was used to examine the relationships among service quality, customer satisfaction, and customer loyalty. Table 12 shows strong positive and statistically significant relationships among the study variables. Service quality was strongly correlated with customer satisfaction ($r = .898$, $p < .001$) and customer loyalty ($r = .818$, $p < .001$). Customer satisfaction had the strongest relationship with customer loyalty ($r = .965$, $p < .001$).

Variable	Service Quality	Customer Satisfaction	Customer Loyalty
Service Quality	1.000	0.898	0.818
Customer Satisfaction	0.898	1.000	0.965
Customer Loyalty	0.818	0.965	1.000

Table 12. Pearson correlation matrix of the study variables

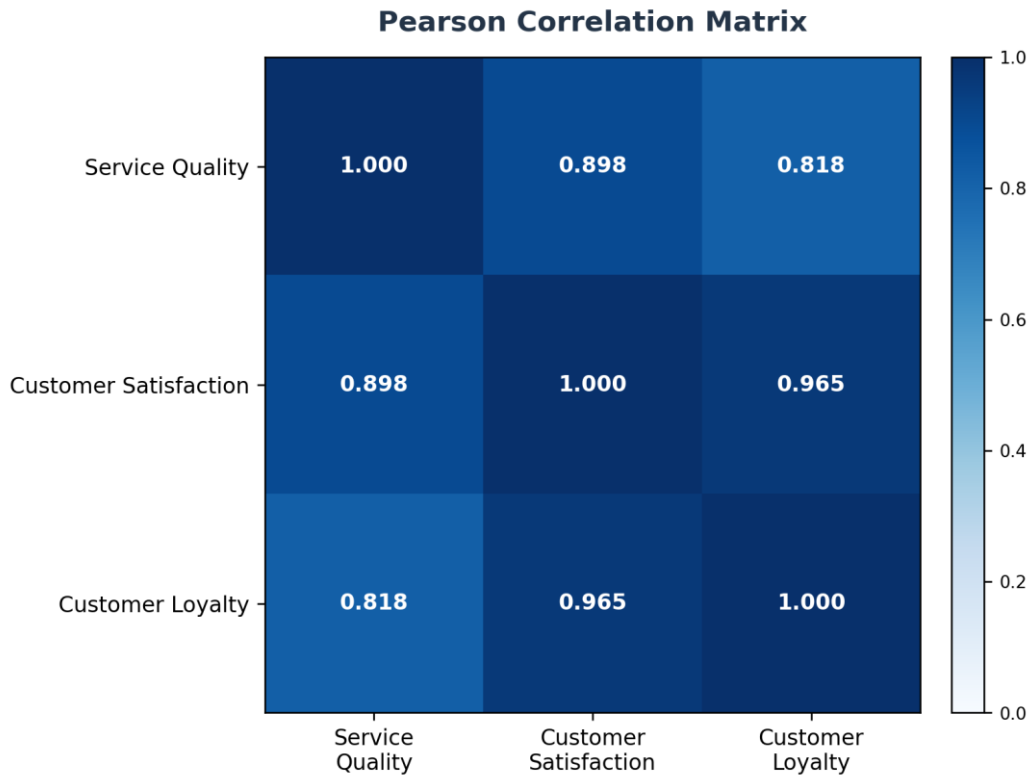


Figure 4. Pearson correlation matrix

Figure 4 illustrates the strength of the relationships among the study variables. The strongest association appeared between customer satisfaction and customer loyalty.

4.7. Hypotheses Testing

The research hypotheses were tested using simple regression analysis and mediation analysis. The first three hypotheses examined the direct effects among the variables. The fourth hypothesis examined whether customer satisfaction mediated the relationship between service quality and customer loyalty.

Hyp.	Path	B	Beta	t	p	R2	Decision
H1	Service Quality -> Customer Satisfaction	0.874	0.898	7.62	< .001	0.806	Supported
H2	Service Quality -> Customer Loyalty	0.721	0.818	5.32	< .001	0.669	Supported
H3	Customer Satisfaction -> Customer Loyalty	0.874	0.965	13.70	< .001	0.931	Supported

Table 13. Regression results for the direct hypotheses

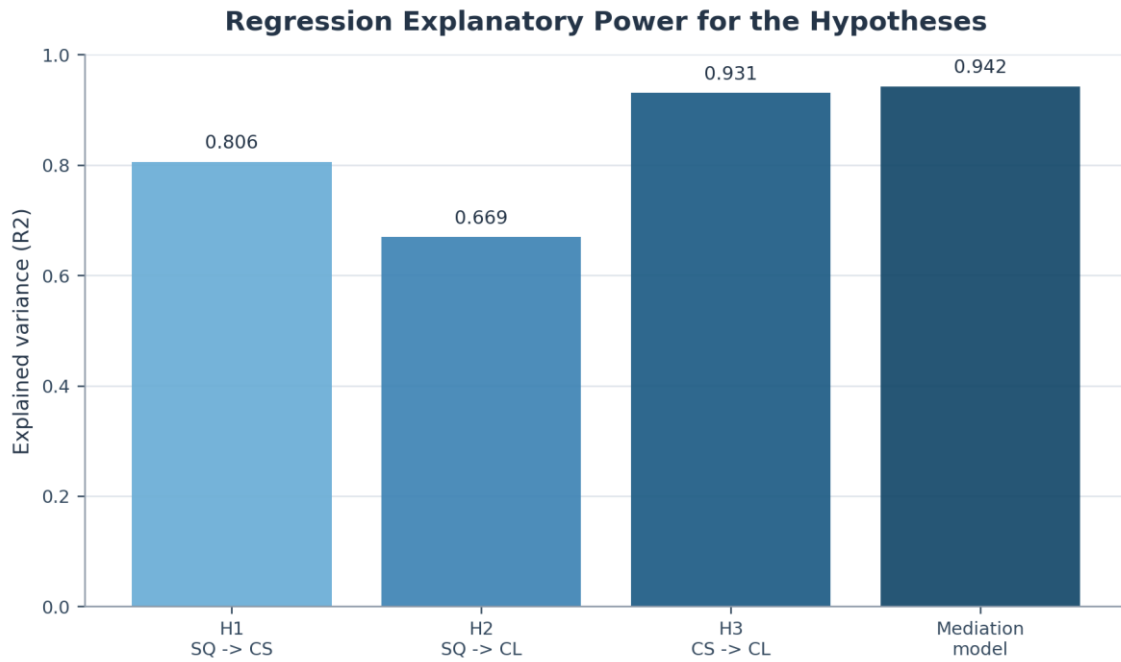


Figure 5. Regression explanatory power for the hypotheses

Figure 5 shows the proportion of explained variance for the direct models and the mediation-related regression model. Customer satisfaction explained the largest proportion of variance in customer loyalty.

H1 was supported because service quality significantly predicted customer satisfaction, $B = 0.874$, $\beta = 0.898$, $t = 7.62$, $p < .001$, and explained 80.6% of the variance in customer satisfaction. H2 was also supported because service quality significantly predicted customer loyalty, $B = 0.721$, $\beta = 0.818$, $t = 5.32$, $p < .001$. H3 was supported because customer satisfaction significantly predicted customer loyalty, $B = 0.874$, $\beta = 0.965$, $t = 13.70$, $p < .001$.

Path / effect	Coefficient	p / confidence interval	Interpretation
a: Service Quality -> Customer Satisfaction	0.874	< .001	Significant positive path
b: Customer Satisfaction -> Customer Loyalty controlling Service Quality	1.074	< .001	Significant mediator path
c: Total effect of Service Quality on Customer Loyalty	0.721	< .001	Significant total effect
c': Direct effect controlling Customer Satisfaction	-0.217	= .127	Non-significant direct effect
Indirect effect	0.939	95% CI [0.600, 1.951]	Supported mediation

Table 14. Mediation analysis for customer satisfaction

Mediation Effect of Customer Satisfaction

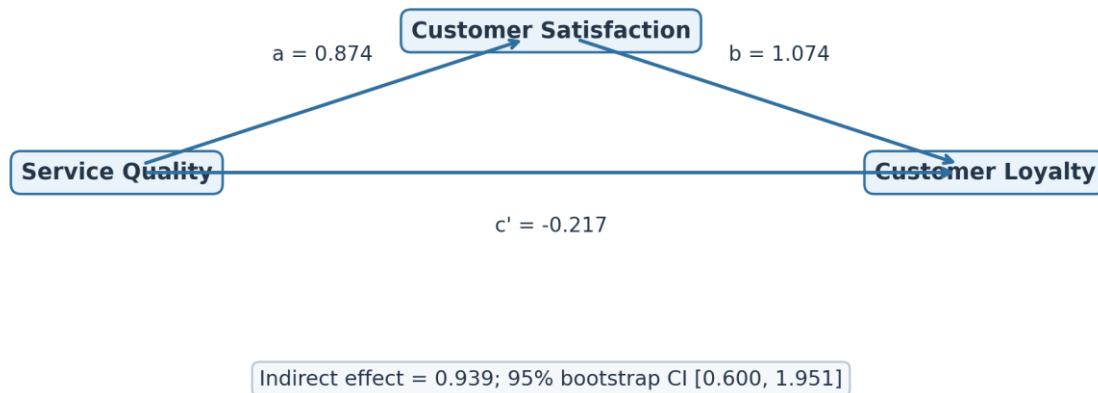


Figure 6. Mediation model for customer satisfaction

Figure 6 shows that customer satisfaction mediated the relationship between service quality and customer loyalty. The bootstrapped indirect effect was positive and its 95% confidence interval did not include zero.

The mediation result supports H4. The indirect effect of service quality on customer loyalty through customer satisfaction was positive, and the bootstrap confidence interval did not include zero. In the combined model, customer satisfaction remained a significant predictor of customer loyalty, while the direct effect of service quality became non-significant. This pattern suggests that customer satisfaction is a key explanatory mechanism through which service quality contributes to loyalty.

Hypothesis	Statement	Result
H1	Service quality has a significant positive effect on customer satisfaction.	Supported
H2	Service quality has a significant positive effect on customer loyalty.	Supported
H3	Customer satisfaction has a significant positive effect on customer loyalty.	Supported
H4	Customer satisfaction mediates the relationship between service quality and customer loyalty.	Supported

Table 15. Summary of hypotheses testing

4.8. Discussion of Findings

The findings show that respondents generally perceived the quality of services provided by service organizations as high. This indicates that respondents tended to agree that the organizations provide services on time, respond to customer requests, treat customers respectfully, show personal attention, and provide suitable facilities and tools. These results are consistent with the literature, which argues that service quality is an important driver of customer evaluations in service organizations.

The strong positive relationship between service quality and customer satisfaction confirms that customers are more likely to feel satisfied when service organizations deliver reliable, responsive, respectful, and customer-centered services. This finding aligns with previous studies such as Shrestha (2021), Supriyanto et al. (2021), Yum and Yoo (2023), and Kurniawan et al. (2025), which emphasize that service quality significantly enhances customer satisfaction.

The results also show that service quality has a significant positive effect on customer loyalty. This means that better service experiences may encourage customers to continue using the organization's services, recommend the organization to others, and speak positively about it. However, the mediation analysis provides a more detailed explanation: customer satisfaction appears to be the main pathway through which service quality strengthens loyalty. In other words, high service quality is important because it creates satisfaction, and satisfied customers are more likely to become loyal customers.

Although the statistical relationships were strong, the findings should be interpreted with caution because the sample size was limited to 16 responses and was based on convenience sampling. Nevertheless, the results provide useful empirical evidence that supports the research model and highlights the importance of customer-centered service quality practices in service organizations.

4.9. Conclusion

This chapter presented the statistical analysis and discussion of the questionnaire results. The analysis showed that the questionnaire had excellent reliability and acceptable validity indicators. The respondents reported high levels of perceived service quality, customer satisfaction, and customer loyalty. Correlation and regression analyses confirmed significant positive relationships among the main variables. The hypotheses were supported, including the mediating role of customer satisfaction in the relationship between service quality and customer loyalty. These findings provide the empirical basis for the conclusions and recommendations that will be presented in the next chapter.

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Appendix A: Questionnaire for Research Variables

This questionnaire is designed to collect data about service quality, customer satisfaction, and customer loyalty in service organizations. Responses will be used for academic research purposes only. Respondents should answer based on their most recent experience with a service organization.

A.1. Response Scale

1 = Strongly Disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
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A.2. Demographic Information

D1. Gender: Male / Female

D2. Age: Less than 20 / 20-29 / 30-39 / 40-49 / 50 and above

D3. Educational level: High school / Diploma / Bachelor / Postgraduate

D4. Type of service organization most recently used: Banking / Telecom / Healthcare / Education / Other

D5. Frequency of using the service: Rarely / Sometimes / Often / Very often

A.3. Questionnaire Items

Variable	Code	Item	Response scale
Service Quality	SQ1	The organization provides its services at the promised time.	1 2 3 4 5
Service Quality	SQ2	The organization performs the service correctly from the first time.	1 2 3 4 5
Service Quality	SQ3	Employees respond quickly to customer requests.	1 2 3 4 5
Service Quality	SQ4	Employees are willing to help customers.	1 2 3 4 5
Service Quality	SQ5	Employees have sufficient knowledge to answer customer questions.	1 2 3 4 5
Service Quality	SQ6	Employees behave politely and professionally.	1 2 3 4 5
Service Quality	SQ7	The organization gives customers individual attention.	1 2 3 4 5
Service Quality	SQ8	The organization understands customers' specific needs.	1 2 3 4 5
Service Quality	SQ9	The physical facilities and service environment are clean and organized.	1 2 3 4 5
Service Quality	SQ10	The organization uses modern tools and technologies to provide services.	1 2 3 4 5
Customer Satisfaction	CS1	Overall, I am satisfied with the services provided by this organization.	1 2 3 4 5

Variable	Code	Item	Response scale
Customer Satisfaction	CS2	The services meet my expectations.	1 2 3 4 5
Customer Satisfaction	CS3	My experience with this organization is positive.	1 2 3 4 5
Customer Satisfaction	CS4	I believe that choosing this organization was the right decision.	1 2 3 4 5
Customer Satisfaction	CS5	The organization provides value that satisfies my needs.	1 2 3 4 5
Customer Loyalty	CL1	I intend to continue using this organization's services in the future.	1 2 3 4 5
Customer Loyalty	CL2	I would recommend this organization to others.	1 2 3 4 5
Customer Loyalty	CL3	I prefer this organization over competing service providers.	1 2 3 4 5
Customer Loyalty	CL4	I would say positive things about this organization to others.	1 2 3 4 5
Customer Loyalty	CL5	I am willing to remain a customer of this organization for a long time.	1 2 3 4 5

Table 5. Questionnaire items for the research variables

Appendix B: Table of Research Tools

The following table summarizes the research tools used to measure the study variables and to support the statistical analysis of the research model.

Variable	Role in the model	Main dimensions	Questionnaire items	Scale	Main supporting sources
Service Quality	Independent variable	Reliability, responsiveness, assurance, empathy, tangibles	SQ1-SQ10	Five-point Likert scale	Shrestha (2021); Supriyanto et al. (2021)
Customer Satisfaction	Mediating variable	Overall satisfaction, expectation confirmation, perceived value	CS1-CS5	Five-point Likert scale	Akbar & Parvez (2009); Yum & Yoo (2023)
Customer Loyalty	Dependent variable	Repurchase intention, recommendation, preference, positive word-of-mouth	CL1-CL5	Five-point Likert scale	Adelia & Purnama (2025); Kurniawan et al. (2025)
Demographic profile	Control/descriptive data	Gender, age, education, service type, usage frequency	D1-D5	Categorical choices	Used for sample profile and descriptive statistics

Table 6. Research tools and measurement sources

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