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# DETERMINANTS OF PATIENT SATISFACTION AND LOYALTY AT SHWE LA WON DENTAL CLINIC, NAY PYI TAW

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# ABATRACT

This study aims to examine the effects of service quality dimensions on patient satisfaction and patient loyalty in Shwe La Won Dental Clinic in Lewe Township, Nay Pyi Taw. This study focuses on five key dimensions of service quality: tangibility, reliability, responsiveness, assurance, and empathy. The study adopts a quantitative research approach with a descriptive survey design. Data were collected from 150 patients who received dental services at Shwe La Won Dental Clinic. A structured questionnaire was used as the main research instrument, and all items were measured using a seven-point Likert scale. Secondary data were gathered from journals, articles, textbooks, theses, and relevant internet sources. The analysis techniques included descriptive statistics for respondents' profiles, reliability analysis for all measurement items, correlation analysis, and multiple regression analysis to test the relationships among variables. The findings indicate that empathy and assurance have a significant positive effect on patient satisfaction, while tangibility, reliability, and responsiveness show comparatively weaker contributions. Patient satisfaction is also found to have a positive and statistically significant influence on patient loyalty. Based on these findings, strengthening empathy and assurance is recommended through regular staff training focused on communication skills, patient-centered care, and trust-building practices. Creating a more supportive environment by improving patient interaction and comfort during treatment is also suggested. In addition, enhancing accessibility through more affordable service options, such as subsidized care packages and outreach or mobile dental services, is recommended to better serve low-income and elderly patients. These improvements can contribute to higher patient satisfaction and stronger long-term loyalty.

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# CHAPTER 1
# INTRODUCTION

The service sector of Myanmar has been an increasingly important sector of the national economic development, contributing above 41% of the country's gross domestic products (World Bank, 2024). The economic challenges such as inflation and supply chain disruptions has affected the overall performance of the organization, especially on financial performance, service quality, efficiency and customer satisfaction. However, the growth of the sector has been supported by the continued expansion of essential services and the adoption of digital technologies. Servitization is an emerging trend in business practice where supplementary service elements are added to the core offering to enhance competitive advantage and add more value to customers (Vandermerwe & Rada, 1988). The demand for higher standards of service performance in service-oriented industries is escalating with the rise of customer expectations.

The healthcare services industry in Myanmar has undergone significant evolution over previous decade due to population rising, increasing health awareness and the consistent development in public and private healthcare system. The emergence of more private healthcare providers in cities like Nay Pyi Taw have increased competition and you have to deliver better service quality now. Differences in standards of service delivery, scarcity of resources and inequitable access to healthcare services are still determining how patients perceive health care. In addition to achieving positive clinical results, healthcare providers are also expected to provide quality services that can satisfy patients (World Health Organization, 2022).

Oral health services in Myanmar are an integral part of the broader health care system contributing to the improvement of population oral health and well-being. The promotion of health is intricately linked to oral wellbeing (Petersen, 2003). The oral health problems, such as dental caries or cavities with periodontal disease and mouth infection occurring in every stage of life affect activities of daily living such as eating and speaking negatively influence the person. Oral healthcare services are one of the few forms of healthcare that give early detection, timely treatment and prevention of oral diseases in many communities, particularly those not yet familiar with preventive dental care. In addition to clinical treatment, dental healthcare also plays a major role

in raising community awareness and promoting better hygiene. Routine patient interaction in the dental services enhances comprehension of standard practices for oral health such as regular tooth brushing, flossing, and periodic dental check-ups. Prevention targeted for children is more effective and less costly in the long term, especially acting on early behaviour (World Health Organization, 2022).

Patient satisfaction has become a key driver of the performance and survival of health services, including dental services. Patient satisfaction is the extent to which healthcare services that patients have experienced meet their needs and expectations. Moreover, high satisfaction increases the likelihood of revisits and positive recommendations. Stability of patient flow and long-term relationship development is supported by a loyal patient base. High satisfaction and loyalty also help to ease marketing pressure and increase competitiveness in health care (Kotler & Keller, 2016).

The quality of service that influences patient satisfaction has always been central to health delivery. According to Parasuraman et al (1988), service quality consists of several critical dimensions, such as the physical environment and equipment condition, reliability and consistency of service delivery, responsiveness, professionalism and credibility of healthcare personnel, and personalized care to patients. Ability to manage the service quality dimensions and shape the patients' perception will lead towards satisfaction and behavioral intention to return. A consistent standard in service delivery contributes to stronger perceptions of reliability and trust among patients. The greater trust enhances the potential of coming back and recommending the service. Continuous improvement in the quality of services is pertinent for better patient outcomes and to ensure sustainable services by continuously improving the quality of services in healthcare (Zeithaml et al., 1996).

In Myanmar, private dental clinics operate in a competitive oral healthcare setting where continuous service quality improvements are required to retain patient satisfaction and loyalty. Shwe La Won Dental Clinic in Nay Pyi Taw is a suitable environment to examine the impact of service quality on patient satisfaction and patient loyalty with regard to the provision of a wide array of dental services which encompass preventive, restorative and advanced dental treatments. A focus on patient centered care, clinical professionalism and oral health education paves the way for assessing the effect of service quality on patient satisfaction and patient loyalty. Shwe La Won Dental Clinic was selected for this study as a representative of private dental service providers. The results of the study will give information about the patients' experiences of dental

services which will be used as key data for the improvement of the quality of service and effectiveness of service in delivering dental services at Shwe La Won Dental Clinic and will thus improve the quality of dental healthcare service delivery systems in Myanmar.

## 1.1 Rationale of the Study

The health system of Myanmar improves public health, improves productivity, and maintains social stability. The health system reduces the economic and social burdens of the diseases that would otherwise prevent the population from participating fully in the economic and social development of the country (World Bank, 2022). The healthcare system is important to the people of Myanmar, with the government actively seeking to improve UHC and equitable access to essential health services in rural and urban areas, however, there remain inefficiencies and structural deficiencies in the health system, including issues with unequal distribution of health resources, discrepancies in care, and accessibility of service provision (D'Apice, 2025).

Dental healthcare services constitute a significant yet underdeveloped component of the overall healthcare system. In Myanmar, oral diseases such as tooth decay, gum disease, and tooth loss are very common and often go untreated. Such oral health problems can have a significant impact on a person's quality of life, including the ability to eat, speak, look, and feel confident in social interactions. Furthermore, poor oral health is closely linked to other systemic health problems within the body, highlighting that dental care is not a separate service but an integral part of general health care.

The access to dental healthcare in Myanmar is quite difficult especially in rural and semi-urban areas. This problem is largely caused by financial difficulties because of the inequitable distribution of dentists and lack of information on dental prevention. The majority of patients tend to visit clinics and hospitals only in case of serious dental diseases, which means that treatment becomes more expensive. This situation highlights the need for accessible, affordable, and high-quality dental services that can meet both preventive and curative needs. Improving dental health services is therefore essential to reduce the burden of oral diseases, encourage early treatment, and improve public health outcomes. Understanding patient satisfaction and service quality in dental clinics is important to identify service needs and improve healthcare delivery to better meet the needs and expectations of patients in Myanmar.

Nay Pyi Taw, the administrative capital of Myanmar, serves as a core for the provision of medical services and is an important part of the national health system. Previous studies have identified Nay Pyi Taw as a suitable location for conducting research on oral health (Oo et al., 2021). Lewe Township, within the Nay Pyi Taw Union Territory, is a transitional area where urban development and community-based healthcare needs meet. The growing population in the township has increased demand for both public and private dental services, creating an appropriate environment to examine patient experience and access to oral health care.

Shwe La Won Dental Clinic is identified as a major private dental service provider among the healthcare facilities in Lewe Township. The clinic operates in a highly competitive environment where private dental service providers are competing to differentiate themselves on the basis of service quality, affordability, patient satisfaction, and clinical expertise. However, academic research is limited on the clinic, particularly on patient satisfaction and service quality. This lack of previous research clearly indicates that there is a research gap in the context of private dental health services in Lewe Township.

Shwe La Won Dental Clinic has been chosen for conducting the study because of its significance in illustrating the contemporary dental healthcare sector in terms of its private practices as well as access to a varied customer base. The key objective of the study is the identification of factors that affect patients' decisions to choose certain dental services such as quality of service, waiting time, behavior of the personnel, and perception of value (Kotler & Keller, 2016). Understanding these determinants is essential for improving patient satisfaction and strengthening the competitive position of dental service providers.

The results of this study are expected to be valuable contributions for various stakeholders. For clinic management, the results will provide evidence-based insights into service performance, which will help improve patient care, operational efficiency, and overall service quality. The result will also provide information for other private dental clinics in Lewe Township to better understand patient expectations and develop more effective service strategies. Furthermore, this study will contribute to the limited academic literature on private dental health services in Nay Pyi Taw and provide a foundational platform for future academic studies and policy-making processes in the dental healthcare sector.

## 1.2 Problem Statements of the Study

Shwe La Won Dental Clinic is providing services in a situation where the demand for service quality and readily available dental care is increasing. The increasing number of dental care services place great pressure on the service delivery systems and consequently influence a patient's judgement of clinical services. There are various issues related to operation that impact service quality and cause variations in the patients' service experience. High patient inflow, along with limited staffing, causes delays in service delivery. Appointment schedules often get disrupted, and waiting times frequently go beyond what is expected.

Workload pressure limits responsiveness to urgent patient needs and inquiries, creating perceptions of inefficiency and reducing confidence in service timeliness. Time limitations and differences in clinical performance also impact how patients view the reliability of the service. Changes in the level of accuracy for diagnosis and gaps in the continuity of treatments reduce patients' confidence in services delivered. Unreliable follow-up after treatment procedures will raise doubts about recovery and clinical services reliability. Such conditions highlight reliability concerns within the service delivery process.

Another important factor which influences patients' service perception is communication and interpersonal interaction. Limited consultation time compromises clarity and comprehensiveness of explanations about the treatments and the possible side-effects or recovery process involved. Ineffective communication creates uncertainty and anxiety in patients' minds, especially those facing treatments for chronic oral health conditions. Reduced personal care weakens patients' perception of service providers' concern for patients' wellbeing.

The clinical environment also plays a significant role in the perception of service quality. Outdated equipment, lack of uniform hygiene standards and inadequate facility layout such as, waiting room size or patient flow create patient dissatisfaction and inconvenience. Overall effect of poor facility conditions and operational shortcomings impact the assurance dimension. However, these limitations cumulatively result in significant discrepancies between the patients' perception of service quality and the actual service quality of the Shwe La Won Dental Clinic. This service quality gap in clinic services has a negative impact on patient satisfaction and the final evaluation of the service.

The lack of satisfaction causes poor patient retention and reduces positive word-of-mouth communication, leading eventually to a decrease in service utilization. Studies related to the assessment of the quality of services offered by private dental clinics in Nay Pyi Taw have not been systematically done. Empirical studies exploring the relationship between service quality dimensions, patient satisfaction, and patient loyalty remain limited. The lack of study indicates a necessity for a more comprehensive investigation into service quality factors and the resulting effects on patient satisfaction and loyalty. Such investigation can contribute to evidence-based improvements in service delivery.

## 1.3 Research Questions

The following research questions are formulated for this study;

1. How does tangibility affect patient satisfaction at Shwe La Won Dental Clinic?
2. How does reliability affect patient satisfaction at Shwe La Won Dental Clinic?
3. How does responsiveness affect patient satisfaction at Shwe La Won Dental Clinic?
4. How does assurance affect patient satisfaction at Shwe La Won Dental Clinic?
5. How does empathy affect patient satisfaction at Shwe La Won Dental Clinic?
6. How does patient satisfaction affect patient loyalty at Shwe La Won Dental Clinic?

## 1.4 Research Objectives

The purpose of the study is to accomplish the following objectives;

1. to examine the effect of tangibility on patient satisfaction at Shwe La Won Dental Clinic
2. to analyze the effect of reliability on patient satisfaction at Shwe La Won Dental Clinic
3. to study the effect of responsiveness on patient satisfaction at Shwe La Won Dental Clinic
4. to determine the effect of assurance on patient satisfaction at Shwe La Won Dental Clinic
5. to analyze the effect of empathy on patient satisfaction at Shwe La Won Dental Clinic

6. to explore the effect of patient satisfaction on patient loyalty at Shwe La Won Dental Clinic

## 1.5 Method of Study

This study employed a quantitative research approach using primary data. The primary data were collected through a structured questionnaire designed with a seven-point Likert scale. A 3-in-1 systematic random sampling technique was applied to select respondents from patients visiting Shwe La Won Dental Clinic in Lewe Township, Nay Pyi Taw. Data collection was conducted from January 15 to January 25, 2026. Descriptive statistics, reliability analysis, correlation analysis, multiple linear regression and simple linear regression analyses were used to interpret the collected data.

## 1.6 Scope and Limitations of the Study

This study mainly focuses on identifying the key determinants of patient satisfaction and patient loyalty at Shwe La Win Dental Clinic in Nay Pyi Taw, Lewe Township. The study focuses on tangibility, reliability, responsiveness, assurance, empathy, and customer satisfaction. Other factors such as price, priority, culture, and communication, were not analyzed in this study. In terms of geographical scope, this study was confined only to Shwe La Win Dental Clinic, and therefore the findings might not be fully representative of other dental clinics or healthcare service providers in different locations.

## 1.7 Background of the Study

Shwe La Won Dental Clinic is a private dental care service center in Lewe Township, Naypyitaw. The clinic has been taking care of the locals for more than 15 years. Shwe La Won dental clinic operates on a single-location basis, which allows all its clinic practitioners to focus their efforts on patient care and observe the correct medical procedures throughout all dental services. The medical facility has become reputable for providing services that are consistent, reliable, and personalized for each patient through centralized operation in the Lewe Township.

The service philosophy of Shwe La Won dental clinic focuses on providing high-quality, safe, and affordable dental treatments. Professional service delivery that provides patient satisfaction is based on implementing consistent procedures that ensure

comfort, trust, and overall satisfaction. The long-term development strategy of the dental clinic focuses on being among the leading and trusted dental healthcare providers that would improve its performance and use innovative methods to promote oral hygiene within the community.

Services offered by the clinic encompass a wide array of general and special treatments, ranging from prosthodontics to dental implants. In the Lewe area, Shwe La Won Dental Clinic is considered one of the three major clinics providing dental services to the citizens. Shwe La Won dental clinic is attracting patients with the use of new dental technologies, hygiene and cleanliness in treatment rooms in accordance with current standards, and affordable prices for the locals.

Shwe La Won Dental Clinic in Lewe attracts high patient volumes due to the clinic's provision of professional clinical services. The clinic's physical identity is determined by the use of modern dental chairs, sterility of equipment, and a hygienic environment necessary to satisfy today's patient requirements. Tangible features of the clinic reveal the physical nature of the clinic, while reputation is based on performance throughout the years. The establishment has managed to create an experience of successful treatment during the 15-year period of operation and has therefore become the most reliable medical organization among the three major clinics in the township.

Shwe La Won Dental Clinic operates efficiently on a day-to-day basis by providing the utmost speed and efficiency in the operations. Staff at the clinic have been trained to handle patient queries and appointment scheduling during periods with high patient flow to minimize wait times. The dentists display professional competency through both technical skills and expertise in handling patients effectively. A safe environment is ensured for all visiting patients due to the thorough and error-free handling of dental procedures with safety as a key priority, thereby diminishing the stress commonly associated with visits to dental clinics.

The clinic stands out due to its patient-focused strategy, which includes offering free first consultations, treatment personalized according to individual needs, and a nurturing and caring atmosphere that builds and sustains trust and satisfaction among patients, establishing Shwe La Won as the top provider of dental care in Lewe. To improve the accessibility and facilitate communication, Shwe La Won offers comprehensive details regarding its contact and online service information through its official webpage. Through the official webpage, patients are able to learn detailed

information on each service offered and also book their appointments or contact the clinic directly via phone.

## 1.8 Organization of the Study

This study consists of five chapters. Chapter one includes the introduction, rationale, problem statement, research questions, objectives, method, scope and limitations and organization of the study. Chapter two includes relevant theories, concepts and previous studies. Chapter three includes the research methodology. Chapter four includes the analysis of the determinants of patient satisfaction and loyalty at Shwe La Won dental clinic. Chapter five describes the conclusion in which findings and discussion, suggestion and recommendations and needs for further study.

# CHAPTER 2
# LITERATURE REVIEW

This chapter presents the concepts of customer loyalty, concepts of customer satisfaction, determinants of customer satisfaction, related theories, previous studies, conceptual framework of the study and hypotheses of the study.

## 2.1 Concepts of Customer Loyalty

Customer loyalty has been widely discussed in the marketing literature and is considered an important factor for organizational success. Oliver (1999) described customer loyalty as a strong commitment to repeatedly purchase or support a preferred product or service in the future, even when influenced by situational factors or competitors' marketing strategies. Kotler and Keller (2016) described customer loyalty as a customer's willingness to continue purchasing products or services from the same company over a long period of time, indicating the long-term relationship between customers and organizations. In addition, Griffin (2002) explained customer loyalty as a non-random purchase behavior that is expressed over time, emphasizing that loyal customers consistently choose the same service provider rather than switching randomly. This argument is in line with the assertion made by Dick and Basu (1994), who stated that customer loyalty is formed through the relationship between a customer's positive attitude and repeat purchasing behavior. According to their perspective, loyalty is not only reflected in repeated usage but also in favorable attitudes toward the service provider. Furthermore, Reichheld and Sasser (1990) argued that customer loyalty refers to customers' tendency to remain with a company and increase their level of purchasing over time. Loyal customers are more likely to repurchase, resist switching to competitors, and recommend the service to others. Therefore, customer loyalty can be understood as a combination of attitudinal aspects, such as commitment and intention to repurchase, and behavioral aspects, such as repeat purchasing and positive word-of-mouth.

Loyalty can be characterized in two different ways, namely attitudinal loyalty and behavioral loyalty, as proposed in the marketing literature (Jacoby & Kyner, 1973). An attitudinal loyalty has been considered as distinctive sentiments creating an individual's general attachment to a product, service or organization (Fornier, 1994).

Behavioral loyalty incorporates customers' tendencies to continue purchasing services from the same provider, to increase the scale and scope of their relationship, and to demonstrate a willingness to recommend the service to others (Yi, 1990). Thakur and Singh (2012) emphasized that customer loyalty is highlighted through attitudinal elements such as intention to repurchase or purchase additional services from the same company, willingness to recommend the company to others, commitment to the company, and resistance to switching to competitors and behavioral aspects of loyalty are demonstrated through repeat purchasing behavior, increased consumption of different services, and active recommendation to others.

Customer loyalty functions as a vital factor which determines both the long-term financial results and the strategic viability of a business. According to Reichheld and Sasser (1990), retaining existing customers is significantly more cost-effective than acquiring new ones, as a 5% increase in customer retention can lead to a profit boost of 25% to 95%. The firm achieves protection against price competition because its loyal customers generate dependable income streams while they choose to pay higher prices. Organizations achieve stronger market positions because their high loyalty levels create obstacles which prevent competitors from entering their markets (Dick & Basu, 1994).

Customer loyalty provides businesses with benefits that extend beyond sales revenue through its ability to generate positive word-of-mouth endorsements (Zeithaml, Berry, & Parasuraman 1996). Customers who show loyalty to a brand will become brand advocates because they recommend products and services to their friends and family which decreases the company's need to spend on marketing and advertising. According to Heskett et al. (1994) in their Service-Profit Chain model loyal customers create a positive growth cycle which improves brand reputation by attracting new customers through their authentic endorsements that people trust more than standard advertisements.

Customer loyalty is commonly measured as a single integrated construct by combining both behavioral and attitudinal indicators. Behavioral aspects of loyalty are operationalized through observable purchasing patterns such as repeat purchase behavior, purchase frequency, customer retention, and relationship duration, which reflect actual customer actions over time. This objective measurement approach is widely supported by Gupta and Zeithaml (2006), who emphasize that behavioral indicators provide a reliable basis for evaluating customer value and retention in a measurable way.

In addition, attitudinal components of loyalty are measured through survey-based Likert scale items that capture customers' psychological commitment toward a brand. These include intention to repurchase, brand preference, and resistance to switching to alternative brands. According to Zeithaml et al. (1996), attitudinal loyalty reflects the underlying cognitive and emotional attachment that drives future purchasing behavior. Day (1969) explains that measuring both behavioral and attitudinal aspects helps distinguish true loyalty from spurious loyalty, where repeat purchasing occurs due to situational constraints rather than genuine preference.

Customer loyalty measurement integrates both behavioral evidence and attitudinal responses to provide a comprehensive understanding of the customer–brand relationship. According to Oliver (1999), true brand loyalty is characterized by a profound dedication to a product that persists even when external circumstances or aggressive competitor advertising attempt to sway the consumer's choice.This combined measurement approach therefore offers a more accurate prediction of long-term customer retention and brand stability.

## 2.2 Concepts of Customer Satisfaction

Organizational achievement is significantly influenced by the extent to which consumer requirements are satisfied. Kotler (2000) defined customer satisfaction as a customer's feeling of pleasure or disappointment that results from comparing a products or service's perceived performance with expectations. Similarly, Oliver (1997) described customer satisfaction as a judgment that a product or service provides a pleasurable level of fulfillment related to consumption. According to Parasuraman et al. (1988), customer satisfaction is formed based on customers' evaluations of service quality by comparing expected service with perceived service performance. Anderson and Srinivasan (2003) stated that customer satisfaction represents a customer's overall evaluation of a service experience over time rather than a single transaction. In addition, Fornell (1992) defined customer satisfaction as an overall post-purchase evaluation that influences customers' future behavioral intentions.

Customer satisfaction is a crucial factor in determining the long-term success and sustainability of service organizations. It reflects how well an organization is able to meet or exceed customer expectations, which directly influences customers' overall evaluation of the service experience. When customers are satisfied, they are more likely to continue using the service and maintain a stable relationship with the provider,

leading to long-term business stability (Kotler & Keller, 2016). In addition, satisfied customers tend to develop positive behavioral outcomes such as repeat purchasing and positive word-of-mouth communication, which can enhance an organization's reputation and competitive position in the market (Anderson et al., 1994).

Furthermore, customer satisfaction is an important factor in strengthening customer loyalty and improving organizational performance. High levels of satisfaction reduce customers' sensitivity to price changes and increase their willingness to stay with the same service provider. This creates a stable customer base that contributes to predictable revenue streams and reduced marketing costs. As a result, organizations that consistently maintain high customer satisfaction are more likely to achieve sustainable growth and long-term profitability (Fornell, 1992).

Customer satisfaction is typically measured using structured survey methods that capture customers' overall evaluation of a service experience. These measurements focus on how well the delivered service matches or exceeds customer expectations, which is considered a key determinant of satisfaction levels (Oliver, 1999). Researchers often use standardized questionnaires to assess different aspects of service quality, including reliability, responsiveness, and overall satisfaction with the experience.

Customer satisfaction is commonly measured using Likert-scale-based survey items that evaluate customers' perceptions of service performance and their level of satisfaction with the service received. These instruments also assess customers' willingness to continue using the service and recommend it to others, which provides a more comprehensive understanding of satisfaction levels. This quantitative approach allows researchers to convert subjective customer perceptions into measurable data for statistical analysis and comparison (Fornell, 1992).

## 2.3 Determinants of Customer Satisfaction

This study employed the SERVQUAL model, which was developed through a series of studies carried out between 1985 and 1994 by Parasuraman, Zeithaml, and Berry, and is widely regarded as one of the most influential frameworks for assessing service quality (Parasuraman et al., 1994). The model measures service quality by analyzing the gap between customers' expectations and their actual perceptions of the service received. In its original form, it identified ten dimensions of service quality, including reliability, responsiveness, competence, access, courtesy, communication, credibility, security, customer understanding, and tangibles (Parasuraman et al., 1985).

Zeithaml et al. (1988) refined the model by consolidating the original components into five core dimensions. Tangibles refer to the physical facilities, equipment, and appearance of personnel. Reliability represents the ability to deliver the promised service consistently and accurately. Responsiveness refers to the willingness and readiness of staff to assist customers and provide prompt service. Assurance is defined as the combination of communication, credibility, security, knowledge, and courtesy. Empathy incorporates aspects of access, communication, and understanding of customers.

### 2.3.1 Tangibility

Tangibility refers to the physical aspects of a service, representing the visible features that customers rely on to assess service quality. Parasuraman et al. (1988) define tangibility as the physical evidence of a service, including facilities, equipment, staff, and communication materials, which customers use to evaluate service quality. Bitner (1992) extends this idea through the servicescape concept, explaining that the design, layout, and atmosphere of a service environment influence customer perceptions and behavior. According to Berry and Parasuraman (1991), tangible cues such as cleanliness, staff appearance, and organized service areas strongly shape customer judgments. Brady and Cronin (2001) further confirm that tangibility remains a stable dimension of service quality across different industries. Dabholkar, Thorpe, and Rentz (1996) also identify tangibility as a key dimension in their hierarchical model of service quality that influences overall customer perception and satisfaction.

Tangibility is important because customers cannot physically test or see a service before experiencing it, so they rely on physical cues to judge quality. A well-maintained environment creates a strong impression of professionalism and reliability, which increases customer trust (Zeithaml et al., 1990). Bitner (1992) explains that the physical surroundings of a service influence customers' emotional responses, which directly affect satisfaction. Moreover, clean, modern, and well-organized facilities help customers feel more comfortable and confident during service delivery. This leads to higher satisfaction levels and positive word-of-mouth communication, which is essential for business success. Therefore, tangibility plays a vital role in influencing customer expectations, experiences, and loyalty.

Tangibility is commonly measured through customer evaluation of physical service attributes. Parasuraman et al. (1988) propose that it can be assessed by

examining three main areas: the modernity of equipment, the visual appeal of physical facilities, and the professional appearance of employees and materials. Customers evaluate whether the equipment used is up-to-date and well-functioning, as this reflects service efficiency. They also assess the cleanliness, design, and attractiveness of the service environment, which influences comfort and perception of quality. In addition, the appearance and grooming of staff are considered important indicators of professionalism. These physical cues are usually measured through customer surveys using rating scales that capture perceptions of service quality.

### 2.3.2 Reliability

Reliability is a core dimension of service quality that reflects an organization's capability to provide services accurately, consistently, and dependably in line with customer expectations. Parasuraman et al. (1988) regard reliability as one of the key determinants influencing customers' perceptions of service quality. It reflects the organization's ability to perform services on time, with precision, and in line with promised standards. Zeithaml et al. (1990) highlight that customers expect service delivery to be free from errors across all industries, especially in sectors like insurance, where accuracy in policies, claims, and financial transactions is crucial. Khan and Fasih (2014) further explain that reliability helps establish customer expectations that influence repeat usage. Blery (2009) adds that reliability involves both fulfilling customer needs correctly and building trustworthy long-term relationships. Zhang (2019) also highlights that consistent service delivery strengthens customer trust and loyalty over time.

Reliability is important because it directly influences customer trust, satisfaction, and loyalty. When a service is delivered accurately and without errors, customers feel confident and secure in the provider's ability. Zeithaml et al. (1990) note that accurate and efficient service delivery increases customer satisfaction, especially in high-risk or detail-sensitive industries. Reliable service reduces mistakes and service failures, which helps organizations avoid additional costs related to service recovery. Berry et al. (1994) explain that consistent service performance builds long-term trust and encourages repeat purchases. Furthermore, unreliable service can lead to customer dissatisfaction and loss of reputation, making reliability a key factor for maintaining competitive advantage. Therefore, reliability ensures that customer expectations are consistently met, which is essential for long-term business success.

Reliability is measured by evaluating how consistently a service provider delivers accurate and timely services. One common method is monitoring service failure rates, such as the frequency of errors or delays in service delivery. Parasuraman et al. (1988) suggest that reliability can also be measured through customer surveys that assess whether services are performed correctly the first time. Johnston (1995) highlights two key measurement aspects: the accuracy of transaction processing and the organization's ability to fulfill promises made during initial customer contact. In addition, organizations may track on-time service delivery performance compared to scheduled standards. Reliability measurement focuses on consistency, error reduction, and the ability to meet service commitments effectively.

### 2.3.3 Responsiveness

Responsiveness is a service quality dimension that reflects how quickly and effectively a company provides assistance to its customers. Parasuraman et al. (1988) define responsiveness as the willingness and speed of service providers in handling customer inquiries, complaints, and service requests. Zeithaml et al. (1990) emphasize that customers expect fast and effective responses, especially in service industries where timely support is essential. Johnston (1997) further explains responsiveness as the ability of an organization to deliver services within promised timeframes while accurately handling customer requests. Wilson et al. (2008) highlight that responsiveness also includes employees' positive attitudes and willingness to assist customers. Shokouhyar (2020) adds that modern organizations should develop systems that anticipate customer needs to improve service speed and efficiency. Hartline and Ferrell (1996) also note that response time reflects a company's commitment to customer care.

Responsiveness is important because it directly affects customer satisfaction, trust, and overall service experience. Customers expect quick solutions to their problems, and delays can lead to frustration and dissatisfaction. Zeithaml, Parasuraman, and Berry (1990) explain that fast service delivery significantly improves perceived service quality. Johnston (1997) adds that timely responses and regular updates during service processes help reduce customer uncertainty and improve satisfaction. When employees respond quickly and show willingness to help, customers feel valued and respected, which strengthens their relationship with the organization. Lovelock (2011) states that high responsiveness can turn ordinary service interactions into positive and

memorable experiences. Therefore, responsiveness is essential for building trust, improving customer loyalty, and maintaining competitive advantage.

Responsiveness is measured by evaluating how quickly and effectively a company responds to customer needs, inquiries, and complaints. One key method is measuring response time, which includes how long it takes for service providers to acknowledge and resolve customer requests. Parasuraman et al. (1988) suggest using customer surveys to assess whether services are delivered promptly and efficiently. Johnston (1997) highlights the importance of tracking service delivery time accuracy and monitoring how quickly issues are resolved. Clow and Baack (2005) also explain that measurement includes evaluating employees' willingness and ability to assist customers effectively. In addition, organizations may use feedback systems to assess customer satisfaction with response speed and support quality. Responsiveness is measured through both quantitative indicators (time) and qualitative assessments (service attitude and helpfulness).

### 2.3.4 Assurance

Assurance refers to the ability of service providers to build customer trust and confidence through their knowledge, skills, professionalism, and ethical behavior. Parasuraman et al. (1988) explain that assurance is particularly important in industries such as banking, healthcare, and insurance, where customers rely heavily on expert knowledge to make important decisions. Berry and Parasuraman (1991) identify assurance as being built through employee competence, courteous behavior, and the ability to clearly explain services. Sureshchandar et al. (2002) define assurance as the expertise and competence of service personnel in performing their tasks effectively. Zeithaml, Parasuraman, and Berry (1990) further emphasize that assurance also depends on organizational trustworthiness and data protection systems. Torabi (2021) adds that assurance involves both technical expertise and clear, trustworthy communication that helps customers understand services and make informed decisions.

Assurance is important because it helps customers feel safe, confident, and secure when using a service, especially in high-risk or complex industries. Customers are more likely to trust organizations that demonstrate professionalism, honesty, and strong knowledge. Parasuraman et al. (1988) explain that assurance reduces customer uncertainty and increases confidence in service providers. In services involving financial or personal information, trust becomes essential for customer decision-making.

Buttle (1996) notes that assurance creates psychological safety, especially when customers feel vulnerable during transactions. Assurance is crucial in building customer trust and credibility, which in turn supports long-term relationships and loyalty.

Assurance is measured by evaluating customers' perceptions of employee knowledge, professionalism, and ability to create trust during service interactions. One common method is through customer surveys that assess staff competence, politeness, and communication clarity. Parasuraman et al. (1988) suggest measuring how confident customers feel during transactions and how secure they feel when dealing with service employees. Berry and Parasuraman (1991) emphasize evaluating employee behavior, including courtesy and ability to explain services clearly. Zeithaml et al. (1990) also highlight the importance of measuring trust in organizational security systems and data protection. In addition, organizations may assess assurance by examining staff qualifications, training levels, and customer feedback regarding trust and confidence.

### 2.3.5 Empathy

Empathy refers to the extent to which service providers deliver personalized attention and recognize the unique needs of each customer. Parasuraman et al. (1988) describe empathy as caring, personalized service that makes customers feel valued and understood. Berry and Parasuraman (1991) explain that empathy involves providing personalized care, convenient service hours, and attention to individual customer needs. Zeithaml, Parasuraman, and Berry (1990) emphasize that empathy reflects how well organizations treat customers as individuals rather than as numbers. Sweeney et al. (1997) highlight that empathy includes emotional understanding and responsiveness to customer concerns. Lovelock (2011) also notes that empathy helps create strong emotional connections between customers and service providers through personalized interactions.

Empathy is important because it helps build strong emotional relationships between customers and service providers, which leads to higher satisfaction and loyalty. Customers who feel understood and appreciated are more inclined to trust the organization and maintain their use of its services. Parasuraman et al. (1988) explain that empathy improves customer experience by making services more personalized and customer-focused. Zeithaml, Parasuraman, and Berry (1990) note that personalized attention increases customer satisfaction because it meets individual

expectations and needs. Lovelock (2011) adds that empathy strengthens long-term customer relationships by creating emotional bonds. Furthermore, in competitive service industries, empathy helps organizations differentiate themselves by offering more human-centered service. Therefore, empathy is essential for improving customer retention and positive word-of-mouth.

Empathy is measured by assessing how well a service provider understands and responds to individual customer needs. One common method is through customer surveys that evaluate whether employees give personal attention and show genuine care. Parasuraman et al. (1988) suggest measuring factors such as individualized service, convenient operating hours, and attention to customer concerns. Berry and Parasuraman (1991) emphasize evaluating whether services are tailored to meet specific customer requirements. Zeithaml, Parasuraman, and Berry (1990) also recommend assessing how well organizations treat customers as individuals rather than as general groups. In addition, measurement can include feedback on staff friendliness, attentiveness, and willingness to listen. Overall, empathy is measured through customer perception of personalized care and emotional support during service delivery.

## 2.4 Related Theories

This section outlines the key theoretical foundations relevant to the study, with a focus on the Stimulus-Organism-Response (S-O-R) model and Expectancy-Disconfirmation Theory.

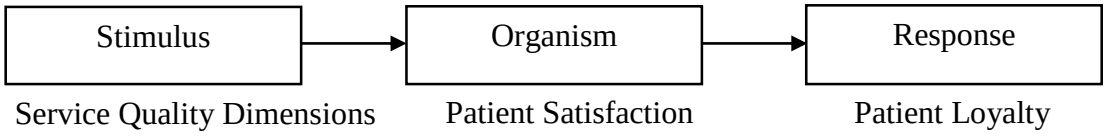
### 2.4.1 Stimulus-Organism-Response Model

The Stimulus theory was initially proposed by Pavlov (1927) within the behaviorism framework, based on his classical conditioning studies. The theory states that associative learning links external cues which include sounds and sights and other sensory inputs to create conditioned behavioral responses. Watson (1913) later developed this concept further, stressing that, all human actions exist as responses which people display toward their surrounding environment without needing to disclose their internal mental processes. This service marketing theory enables researchers to understand how external service signals impact consumer behavior.

According to Domjan (2010), favorable stimuli like tidy surroundings, well-presented staff, and fast service may lead consumers to link service experiences with

satisfaction, trust, and loyalty. The associative learning process demonstrates that customers who experience good service multiple times will develop positive expectations which result in emotional responses that determine their level of satisfaction and likelihood to return.

The Stimulus-Organism-Response (S-O-R) model develops this idea into a complete framework because it shows how humans process information which connects initial stimuli to their subsequent responses. Mehrabian and Russell (1974) first introduced the model which states that environmental cues through which humans experience things connect with stimulus (S) and the first element of the model. The customer assessment process (Organism (O) includes both cognitive and emotional components through which customers evaluate their experiences. The Response (R) component shows customer behavior through their loyalty to the brand and their current level of satisfaction and their future buying plans. Figure 2.1 presents the Stimulus-Organism-Response (S-O-R) model.




*Source*: Mehrabian and Russell (1974)

**Figure 2.1 S-O-R (Stimulus-Organism-Response) Model**

The process demonstrates actual implementation of classical conditioning. Customers who experience consistent high service quality develop a stronger connection between service cues and positive emotional and cognitive outcomes. The process results in higher customer satisfaction which leads to increased customer loyalty and permanent customer retention according to Domjan (2010).

### 2.4.2 Expectancy-Disconfirmation Theory

Expectation Disconfirmation Theory (EDT), introduced by Oliver (1993), extends Expectation Confirmation Theory (ECT) by replacing the notion of confirmation with disconfirmation. According to this theory, consumers evaluate a product's actual performance after purchase by comparing it with their initial expectations. This comparison leads to perceptions of disconfirmation, which may be either positive or negative depending on whether the actual performance surpasses or

fails to meet expectations. These disconfirmation perceptions, together with the gap between expected and actual satisfaction levels, ultimately determine consumers' satisfaction or dissatisfaction (Oliver, 2014).

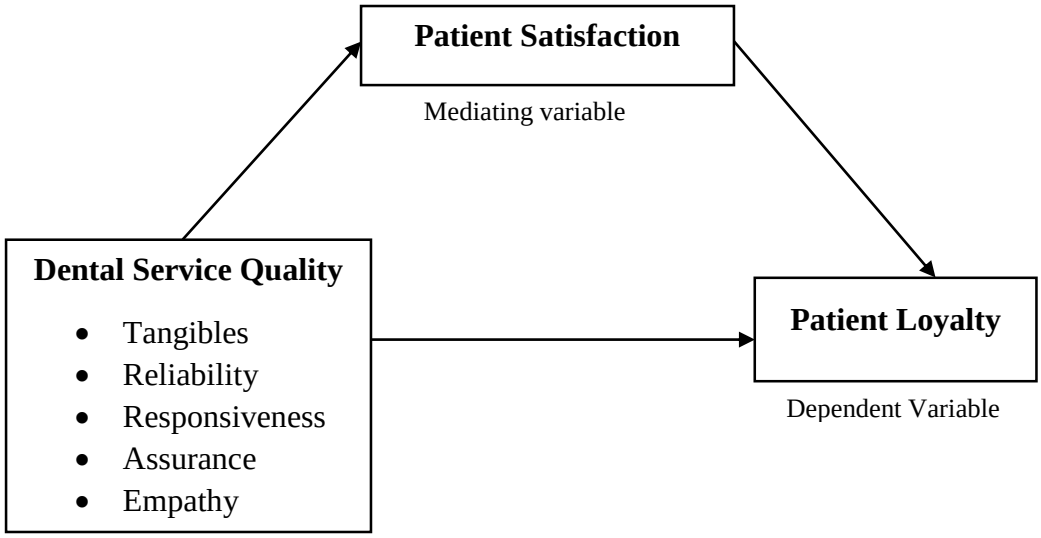
Oliver (2014) proposed two forms of the EDT model. The first is a simplified model consisting of three key constructs: expectations, disconfirmation, and satisfaction. In this model, higher expectations tend to increase the likelihood that perceived performance will fall short, leading to a negative relationship between expectations and disconfirmation. Both expectations and disconfirmation are assumed to influence satisfaction directly.

The second is the comprehensive EDT model, which adds perceived performance as an additional construct. In this extended version, expectations are suggested to positively influence perceived performance. Higher levels of performance are more likely to exceed prior expectations, thereby resulting in positive disconfirmation. Consequently, performance is positively and directly associated with both disconfirmation and satisfaction. Compared to the simplified model, the comprehensive model provides a better explanation of satisfaction variations, although it is less parsimonious (Lankton & McKnight, 2012).

Furthermore, the full model incorporates assimilation and asymmetric effects, which are not captured in the simplified version. Assimilation effects describe how consumers may adjust their perceptions of performance toward their initial expectations, particularly in situations where product evaluation is complex. On the other hand, asymmetric effects refer to the unequal impact of positive and negative experiences, where negative disconfirmation tends to have a stronger influence on satisfaction than positive disconfirmation.

## 2.5 Previous Studies

A study by Siripipatthanakul (2020) explored how patient satisfaction mediates the relationship between service quality and patient loyalty in Thailand's private dental care industry, using Smile Family Dental Clinic as a case study. The conceptual framework of this study is illustrated in Figure 2.2.

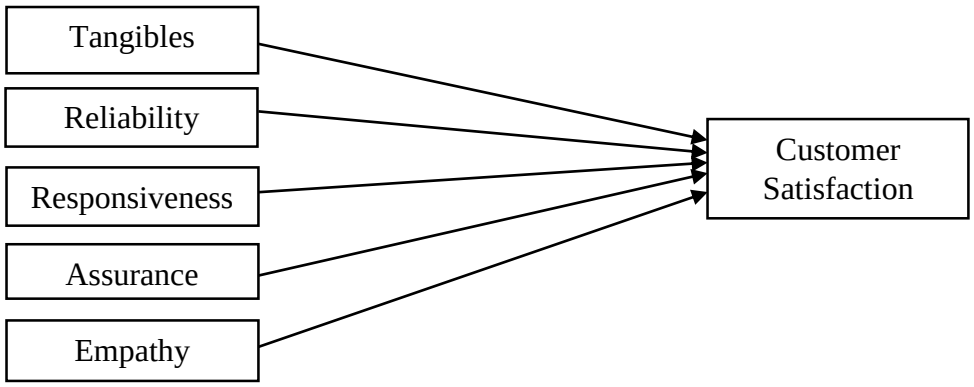



*Source:* Siripipatthanakul (2020)

**Figure 2.2 Service Quality, Patient Satisfaction, and Patient Loyalty in Smile Family Dental Clinic**

The purpose of this study was to investigate the impact of service quality on patient satisfaction and loyalty at Smile Family Dental Clinic. The independent variables comprised tangibility, reliability, responsiveness, assurance, and empathy, while the dependent variables were patient satisfaction and patient loyalty. The findings revealed that service quality dimensions, particularly empathy and reliability, significantly enhance patient satisfaction, which subsequently mediates and strengthens patient loyalty in the private dental care context.

A study by Lu (2023) explored the relationship between service quality and customer satisfaction at Aung Yadana Private Hospital in Yangon. The conceptual framework of the study is illustrated in Figure 2.3.

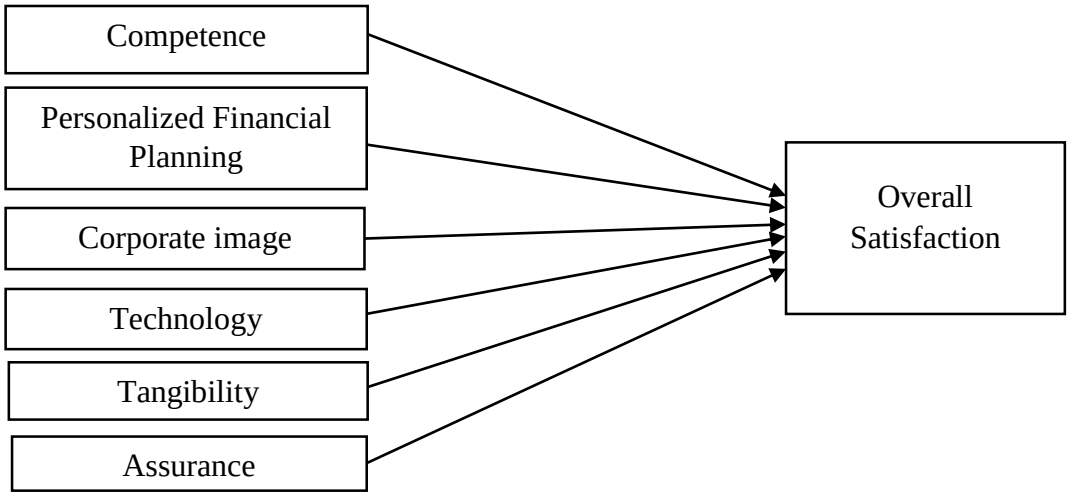



*Source:* Lu (2023)

**Figure 2.3 The Effect of Service Quality on Customer Satisfaction of Aung Yadana Private Hospital**

This study aimed to examine the impact of service quality dimensions on customer satisfaction within the healthcare context. The independent variables included tangibility, reliability, responsiveness, assurance, and empathy, while customer satisfaction served as the dependent variable. The findings indicated that tangibility, assurance, and empathy significantly enhance customer satisfaction, with assurance and empathy demonstrating the strongest effects.

A study conducted by Shiferaw (2021) examined the impact of service quality factors on patient satisfaction at PLLC, a specialized dental clinic in Lulita. The conceptual framework of the study is illustrated in following Figure 2.4.

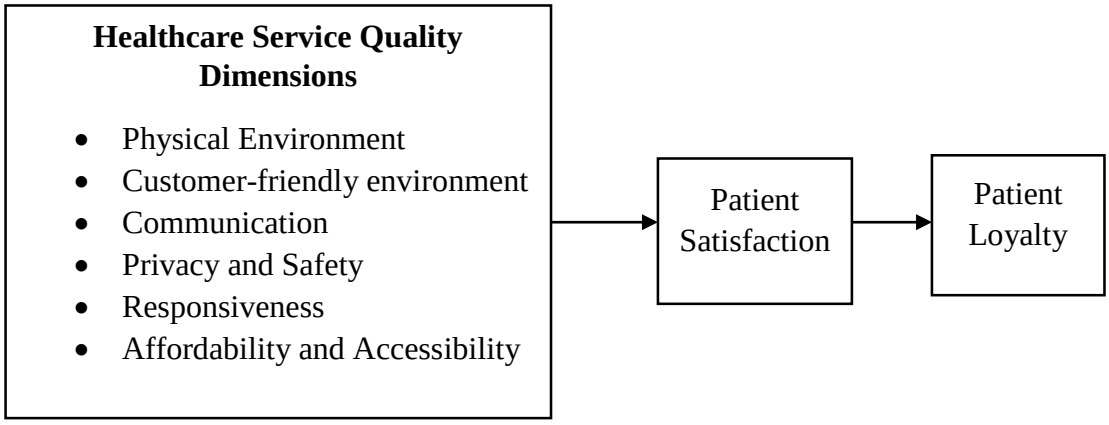



*Source:* Shiferaw (2021)

**Figure 2.4 Assessment of Service Quality and Customer Satisfaction at Lulitta Dental Clinic**

The purpose of this study was to identify the key service quality dimensions that influence patient satisfaction in the healthcare sector. The independent variables included competence, personal financial planning, tangibility, technology, assurance, and corporate image, while the dependent variable was patient satisfaction. As a result, the authors found that all six service quality factors have a significant positive impact on patient satisfaction.

A study by Zaw (2022) examined the impact of service quality dimensions on patient satisfaction, as well as the effect of patient satisfaction on patient loyalty at Moe Kaung Treasure Hospital. The conceptual framework of the study is illustrated in Figure 2.5.

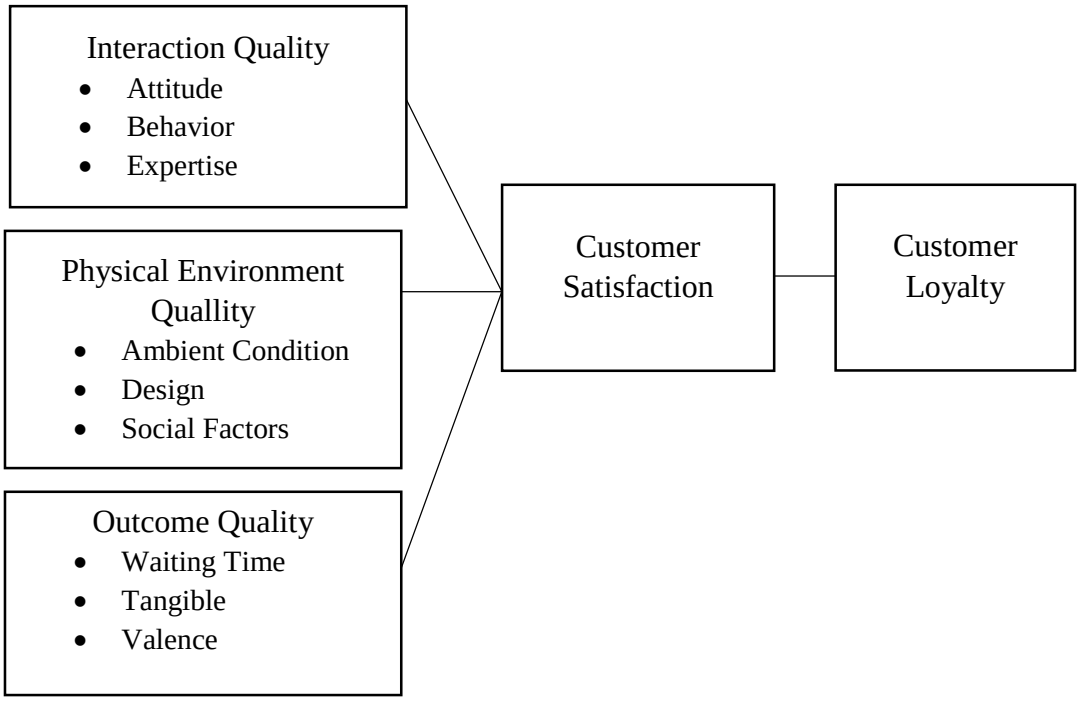



*Source:* Zaw (2022)

**Figure 2.5 The Effect of Healthcare Service Quality on Patient Satisfaction and Loyalty of Moe Kaung Treasure Hospital**

The findings revealed that patients reported a high perception of service quality across all dimensions. Among these, the physical environment, affordability, and accessibility were found to significantly influence patient satisfaction. In addition, patient satisfaction was shown to have a significant positive effect on patient loyalty.

A study by Tun (2019) investigated the influence of service quality on customer satisfaction and customer loyalty at Mediland Hospital, Dawei. The conceptual framework of the study is illustrated in Figure 2.6.




*Source:* Tun (2019)

**Figure 2.6 The Service Quality and Customer Loyalty at Mediland Hospital**

This study showed that staff behavior represents the most influential factor within the interaction quality dimension. In relation to physical environment quality, both ambient conditions and facility design were identified as having a significant impact on customer satisfaction. Furthermore, all dimensions of outcome quality exhibited a strong and statistically significant association with customer satisfaction. The findings also indicated that customer satisfaction positively and significantly affects customer loyalty at Mediland Hospital.

A study by Hashem and Ali (2019) investigated the effect of service quality on customer loyalty in dental clinics in Jordan. The objectives were to evaluate customers' perceptions of service quality and to analyze its impact on loyalty. The study employed a quantitative method and measured service quality using the SERVPERF model, consisting of tangibility, reliability, responsiveness, assurance, and empathy. The results showed a moderate level of perceived service quality, while service quality was found to significantly enhance customer loyalty.

A study by Htang (2019) investigated the relationships between service quality, patient satisfaction, trust, and loyalty in dental care services. The objectives included evaluating service quality, assessing satisfaction, trust, and loyalty, and analyzing the influence among these variables. The results showed that structure, process, and outcome dimensions of service quality had positive effects on patient satisfaction, trust, and loyalty. It was further found that higher service quality levels enhance patient satisfaction, strengthen trust in dental providers, and improve loyalty toward the service.

Suepakdee (2023) conducted a study on the determinants of patient intention to choose dental services in Thailand. This study seeks to ascertain what are the most influential factors that determined patients' selection on their dental clinics. From the study's findings, doctor service quality was proven to be the most influential factor to determine patients' intention to choose their dental clinics in Thailand and neither accessibility nor physical facilities could make significant influence to patient choice on their dental services providers.

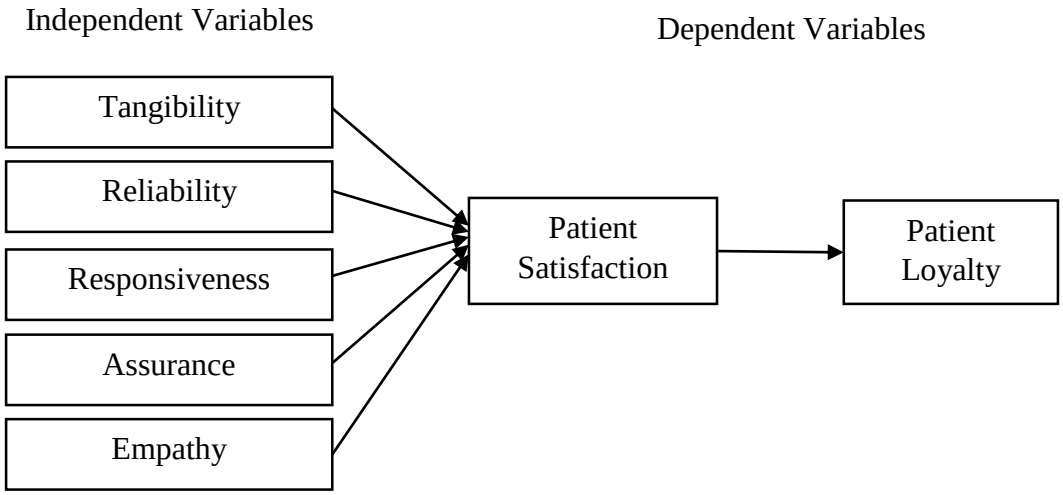
Tuffahati and Achmadi (2023) conducted the study of how service quality and location affect patient loyalty through their impact on patient satisfaction at RSGM-P FKG Universitas Trisakti. The findings revealed that service quality and location both contributed positively to patient satisfaction, which in turn resulted in increased patient

loyalty toward the hospital. Moreover, patient satisfaction was found to mediate the relationship between service quality and location in influencing patient loyalty.

Fairaq et al., (2024) evaluated the levels of patient satisfaction with the dental services in public primary care clinics in the Jeddah First Health Cluster. Patient satisfaction was assessed using a structured and pre-validated questionnaire regarding different service dimensions. The results indicate that meeting expectations and good clinical skill practice were crucial in enhancing patient satisfaction and patient loyalty in public sector dental clinics.

## 2.6 Conceptual Framework of the Study

According to the above previous studies, the following conceptual model is developed for this study.




*Source:* Own Complication based on previous studies (2026)

**Figure 2.7 Conceptual Framework of the Study**

As illustrated in Figure 2.7, the dependent variables are patient satisfaction and patient loyalty, while the independent variable is service quality measured using the SERVQUAL dimensions. Service quality consists of tangibility, reliability, responsiveness, assurance, and empathy. The framework first depicts the influence of these service quality dimensions on patient satisfaction at Shwe La Won Dental Clinic in Lewe Township. It also illustrates the effect of patient satisfaction on patient loyalty at the same clinic.

## 2.7 Hypotheses of the Study

The hypotheses of the study are as follows:

$H_1$: Tangibility has a positive effect on patient satisfaction at Shwe La Won Dental Clinic

$H_2$: Reliability has a positive effect on patient satisfaction at Shwe La Won Dental Clinic

$H_3$: Responsiveness has a positive effect on patient satisfaction at Shwe La Won Dental Clinic

$H_4$: Assurance has a positive effect on patient satisfaction at Shwe La Won Dental Clinic

$H_5$: Empathy has a positive effect on patient satisfaction at Shwe La Won Dental Clinic

$H_6$: Customer Satisfaction has a positive effect on loyalty at Shwe La Won Dental Clinic

# CHAPTER 3
# RESEARCH METHODOLOGY

This chapter presents the research methodology. This chapter outlines research design, target population and sampling size, data collection method, and questionnaire design and data analysis. The methodology ensures the reliability and validity of the research findings.

## 3.1 Research Design

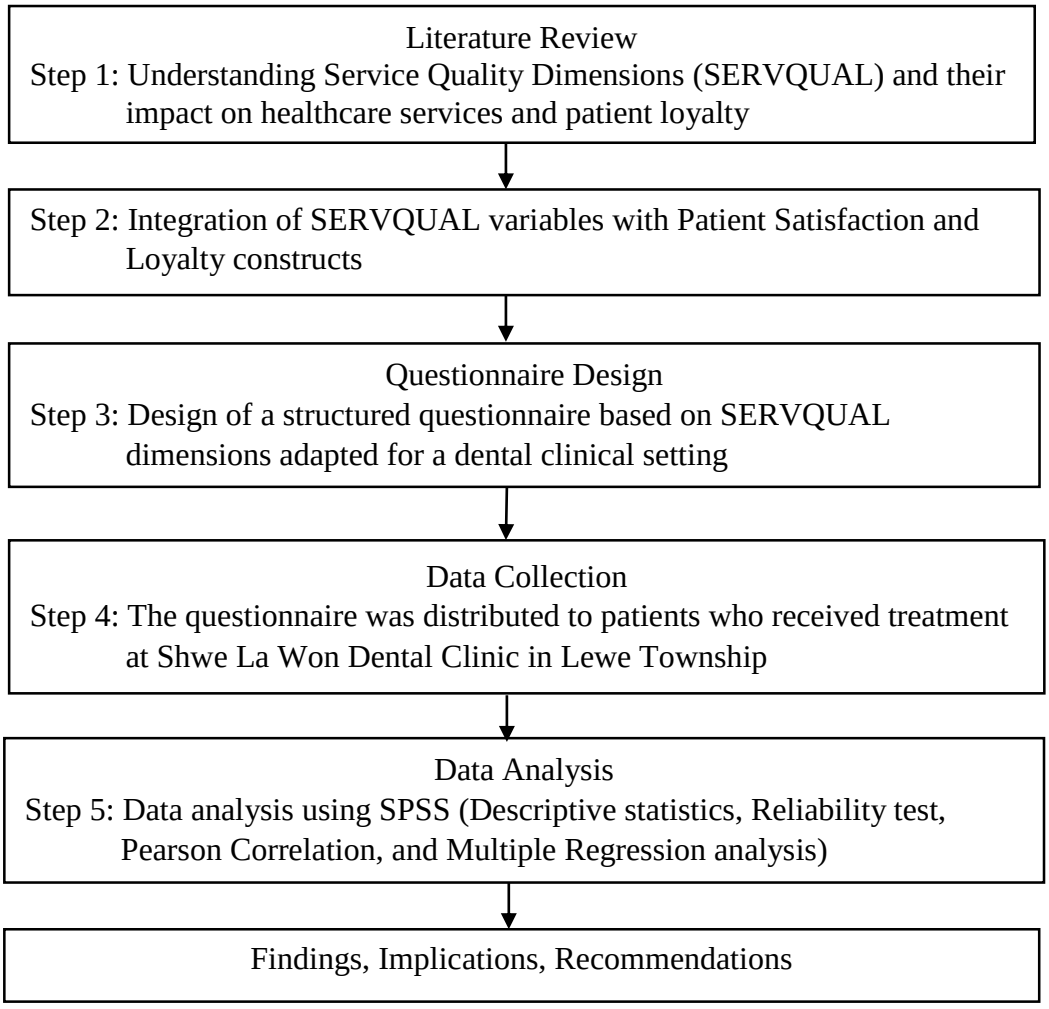
Research design refers to the overall plan or strategy that is used to collect and analyze data in order to answer the research questions effectively and efficiently. According to Kothari (2004), research design is the arrangement of conditions for collecting and analyzing data in a way that aims to combine relevance with the research purpose while minimizing bias and maximizing the reliability of the data. Therefore, an appropriate research design is essential to ensure that the research objectives are achieved accurately. Research methods are generally categorized into two major types. They are qualitative and quantitative methods. Quantitative research endeavors to discover relationships between variables and test hypotheses using numbers. Creswell (2013) defined quantitative research is the process of selecting numeric information and using statistics to analyze this information, in order to find the relations among the research variables. Quantitative research allows researchers to have objective measurement of variables and illustrate the findings by means of numbers, tables, graphs and charts.

Descriptive research method is applicable for the study that aims to describe the characteristic of a particular group, situation or problem in systematic and accurate method. This study employs descriptive and analytic methods to identify the effect of service quality dimensions on patient satisfaction and patient loyalty. Survey research method is used for the purpose of this study. The primary data is gathered from the Shwe La Won dental clinic's patients through the questionnaire. The questionnaires consist of two parts. The first part of questionnaire gathers demographic characteristics of the respondents, which include gender, age, level of education, occupation, income, frequency to the clinic per year and kinds of dental treatment. The second part of the questionnaires contained statement measuring each service quality dimensions, patient satisfaction and patient loyalty. The statements in the questionnaires are assessed with

a seven-point Likert scale ranging from strongly disagree to strongly agree. Descriptive statistical analysis used to summarize the demographic characteristic of respondents and perception, while analytical statistic method is used to identify the association among the variables.

### 3.1.1 Research Process

The research process is the blueprint used during the exploration of factors leading to customer satisfaction and loyalty within Shwe La Won Dental Clinic located in Lewe Township, Nay Pyi Taw. The research process helps in linking the theory behind the study to its practical application as shown in Figure 3.1.




*Source*: Own Compilation (2026)

**Figure 3.1 Research Process of the Study**

This study applies the SERVQUAL model that is widely used in marketing services to assess the quality of the offered services. Literature review helps to

recognize significant variables like tangibility, reliability, responsiveness, assurance, empathy and formulate research hypotheses based on them. According to the theory, the study uses the questionnaire to get quantitative data. The study uses the questionnaire that analyses each element of the SERVQUAL model, while patient satisfaction plays an intermediary role and patient loyalty is considered as the independent variable.

The data collection is performed among patients at Shwe La Won Dental Clinic in Nay Pyi Taw. The data collected are analyzed using SPSS by using descriptive statistics, reliability, Pearson correlation, and multiple regression. The theoretical assumptions of the study form the basis of its empirical analysis. Figure 3.1 represents the study structure, starting with literature review and ending up with recommendations.

### 3.1.2 Data Collection Method

Data collection is an important stage in the research process because it is the foundation of the subsequent analysis and interpretations of results. The main tool of collecting data in this study is structured questionnaires in which primary data will be collected from the intended respondents. A measurement instrument is used to make sure the collected data is quantifiable. For instance, a seven-point Likert scale, which is usually expressed from 1 to 7 where 1 means strongly disagree and 7 represents strongly agree, is used.

The target population for this study is patient who has been treated in Shwe La Won Dental Clinic in Nay Pyi Taw. The sampling technique used in this study is systematic random sampling with a sample interval of 1 in every 3 patients sampled. The reason for choosing such a technique is to minimize any biasness in sampling. It means that after the selection of the first respondent, the next respondent is the one at every third position after the first participant.

The collection of data was done for ten days from January 15th to January 25th. The above period was chosen since it was considered necessary to have recent views of patients regarding their experience and perception, minimizing any other factor that may have an impact on the results collected, such as changes in the operation of the clinic or seasonality. Both primary and secondary sources of data were gathered, whereby secondary data included literature from academic journals, research papers, and industry reports.

## 3.2 Sampling Design

The purpose of this study is to determine the causes of patient satisfaction and examine the impact of satisfaction on patient loyalty. In this study, the target population is the patients of Shwe La Won Dental Clinic located in Nay Pyi Taw since the selected target group meets the criteria of exploring the connection between satisfaction and patient loyalty. For the purposes of the study, 150 respondents were selected as the sample. This number of participants was adequate for obtaining accurate results (Kumar, 2011). The data was gathered using structured surveys conducted among the patients of Shwe La Won Dental Clinic. A systematic sampling process with an interval of three was used, that is also known as 3-in-1 systematic sampling method.

The process of sampling involved randomly selecting the first item from one to three. In this study, the first item was randomly selected from either one or two. Subsequently, every third patient was selected as the respondent. For instance, if the first item selected randomly was one, the respondents would be the $1^{st}$, $4^{th}$, $7^{th}$, $10^{th}$, and succeeding patients. This method allowed for a systematic, yet impartial, selection of participants. Systematic sampling minimizes selection bias and enhances sample representativeness through coverage of the clinic's patient population. Therefore, the results are more likely to reflect the general experiences and perceptions of patients which improves the validity and applicability of the study results.

## 3.3 Questionnaire Design

A questionnaire is a set of structured questions designed to collect information from respondents for the purpose of a study. According to Sreejesh et al. (2014), questionnaires are widely used in survey studies as an effective instrument for gathering data from a large number of respondents. A questionnaire helps to collect data systematically, ensures consistency in responses, and facilitates the analysis of collected information. In this study, primary data were collected through a structured questionnaire. The questionnaire was designed based on the objectives of the study and relevant literature related to service quality, customer satisfaction, and customer loyalty. The questionnaire consists of two sections: Section A and Section B.

Section A includes question statements related to the demographic characteristics of the respondents. The purpose of this section is to obtain basic information about the respondents. The demographic characteristics of the patients at Shwe La Won Dental Clinic are measured by several items including gender, age,

education level, occupation, income level, frequency of visiting the dental clinic per year and types of dental treatments. Multiple-choice questions were used to collect this information.

Section B contains question statements related to the main variables of the study which include tangibility, reliability, responsiveness, assurance, empathy, customer satisfaction, and customer loyalty. All measurement items were assessed using a seven-point Likert scale ranging from 7 "Strongly Agree" to 1 "Strongly Disagree". The measurement items of each variable were adapted and modified from previous studies to suit the context of this study as shown in Table 3.1.

**Table 3.1 Measurement Items of Each Variable**

| Sr. No. | Variables | Authors |
|---|---|---|
| 1 | Tangibility | Bethlehem (2021), Me (2019), Lai (2024) |
| 2 | Reliability | Phyo (2019), Lai (2024), Htoo (2023) |
| 3 | Responsiveness | Thein (2022), Lai (2024), Htoo (2023) |
| 4 | Assurance | Bethlehem (2021), Phyo (2019), Htoo (2023), |
| 5 | Empathy | Phyo (2019), Lai (2024), Htoo (2023) |
| 6 | Patient Satisfaction | Me (2019), Bethlehem (2021), Thein (2022) |
| 7 | Patient Loyalty | Elieen (2019), Me (2019), Thein (2022) |

*Source:* Previous studies, 2026

As shown in Table (3.1), tangibility was measured by adopting the measurement items of Bethlehem (2021), Me (2019), and Lai (2024). Reliability was measured by adopting the measurement items of Phyo (2019), Lai (2024), and Htoo (2023). Responsiveness was measured by adopting the measurement items of Thein (2022), Lai (2024), and Htoo (2023). Assurance was measured by adopting the measurement items of Htoo (2023), Bethlehem (2021), and Phyo (2019). Empathy was measured by adopting the measurement items of Lai (2024), Htoo (2023), and Phyo (2019). Patient satisfaction was measured by adopting the measurement items of Me (2019), Bethlehem (2021), and Thein (2022). Patient loyalty was measured by adopting the measurement items of Elieen (2019), Me (2019), and Thein (2022).

## 3.4 Data Analysis

Data analysis involves the arrangement and transformation of collected data to turn it into useful information. This process is done to find out patterns and relations to serve the research purposes. Before analysis, the collected data should be organized and

prepared to achieve precision and accuracy in analysis. There are different kinds of statistical tools that can be utilized in simplifying and arranging data, including mean, percentage distribution, and frequency distribution.

In this study, SPSS is used to conduct an analysis on the collected data. Descriptive statistics are used to depict the demographic background of respondents and patterns of respondents' answers. Reliability test is used to check the accuracy of measurement tool. Pearson correlation analysis is employed to examine the relationship among variables. Multiple regression and simple regression analysis are utilized to examine the effect of independent variables on dependent variables.

### 3.4.1 Descriptive Statistics

Descriptive statistics are used to summarize and present the characteristics of collected data in a clear and organized manner. According to Bailey (1987) and Tabachnick and Fidell (2007), descriptive statistics provide an overall picture of the data and help present the information in a systematic and user-friendly way. Similarly, Weiss (1999) stated that descriptive statistical analysis aims to measure and summarize the characteristics of a population or dataset.

Descriptive statistics mainly consist of three types of measures. They are measures of central tendency, measures of variability, and frequency distribution. Measures of central tendency describe the center of the data set, including mean, median, and mode. Measures of variability explain the dispersion of the data set, such as variance and standard deviation. Frequency distribution indicates how often each value or range of values appears within the dataset (Smith et al., 2005).

Among these measures, mean and standard deviation are commonly used to explain the basic features of collected data in research (Dancey & Reidy, 2004; Tabachnick & Fidell, 2007). The mean value represents the average response of respondents, while the standard deviation indicates the degree of variation in the responses. A larger standard deviation indicates that the data are widely dispersed around the mean, whereas a smaller standard deviation shows that most responses are close to the mean (Pallant, 2001).

In this study, descriptive statistics are used to analyze the demographic characteristics of respondents and to determine the mean and standard deviation of both independent and dependent variables. The mean values represent the average responses of respondents, while the standard deviation indicates the variability of the responses.

The interpretation of mean values based on the seven-point Likert scale suggested by Pimentel (2019) is presented in Table.

**Table 3.2 Mean Values and Interpretation of Seven-point Likert Scale**

| Sr. No. | Mean value | Interpretation |
|---|---|---|
| 1 | 1.00-1.85 | Strongly Disagree |
| 2 | 1.86-2.71 | Disagree |
| 3 | 2.72-3.57 | Somewhat Disagree |
| 4 | 3.58-4.43 | Neutral |
| 5 | 4.44-5.29 | Somewhat Agree |
| 6 | 5.30-6.15 | Agree |
| 7 | 6.16-7.00 | Strongly Agree |

*Source:* Pimentel (2019)

### 3.4.2 Reliability Analysis

Reliability refers to the consistency and stability of a measurement instrument in producing similar results under consistent conditions. According to Silverman (2004), reliability indicates the extent to which research findings are independent of accidental circumstances. Joppe (2000) defined reliability as the degree to which research results remain consistent over time and accurately represent the characteristics of the population under study. When the same research instrument produces similar results under the same methodology, the instrument is considered reliable.

Reliability testing is important because it ensures that the research instrument generates consistent and dependable results. In many studies, reliability is assessed through internal consistency, which examines the degree to which the items in a questionnaire are correlated with one another (Saunders et al., 2012). Internal consistency indicates whether the measurement items within a scale are measuring the same underlying concept. Cronbach's Alpha is one of the most widely used statistical measures for evaluating internal consistency.

According to Selltiz et al. (1976), Cronbach's Alpha values range between 0 and 1, with higher values indicating greater reliability. Many researchers suggest that a Cronbach's Alpha value of 0.70 or above indicates acceptable reliability (Nunnally, 1978; Zikmund et al., 2010; Bryman & Bell, 2011). However, some researchers have also considered an alpha value of 0.60 or above to be acceptable in exploratory research (Pallant, 2001; Gujarati & Porter, 2009; Sekaran & Bougie, 2013). In this study,

reliability analysis is conducted by using Cronbach's Alpha to assess the internal consistency of the measurement items for both independent and dependent variables.

### 3.4.3 Pearson Correlation Analysis

Correlation analysis is used to examine the relationship between two or more variables (Pallant, 2001). The correlation coefficient provides a numerical value that measures both the strength and direction of a linear relationship between variables, ranging from −1 to +1 (Gujarati & Porter, 2009). A higher correlation coefficient indicates a stronger association between variables. In statistics, commonly used correlation techniques include Pearson correlation, Spearman correlation, and Kendall rank correlation (Gujarati & Porter, 2009; Groebner et al., 2005; Tabachnick & Fidell, 2007; Garson, 2012).

Pearson correlation, also known as linear correlation, is the most widely used method for measuring the relationship between two variables (Pallant, 2001). It is applied when variables are measured on interval or ratio scales and determines the degree to which the values of two variables are linearly related (Tabachnick & Fidell, 2007). Pearson correlation analysis only measures the strength and direction of the relationship between variables and does not predict one variable from another. Therefore, regression analysis is required when prediction is needed. In this study, Pearson correlation coefficient (r) is used to examine the relationships between variables because the data are measured on an interval scale. The strength of correlation coefficients is interpreted based on the criteria suggested by Tabachnick and Fidell (2007) as follows:

+1 (−1) indicates a perfect positive (negative) correlation
0.70 to 0.99 (−0.70 to −0.99) refers to very strong positive (negative) correlation
0.50 to 0.69 (−0.50 to −0.69) refers to strong positive (negative) correlation
0.30 to 0.49 (−0.30 to −0.49) refers to moderate positive (negative) correlation
0.10 to 0.29 (−0.10 to −0.29) refers to weak positive (negative) correlation
0.00 to 0.09 (−0.09 to 0.00) refers to negligible or no correlation

### 3.4.4 Multiple Regression Analysis

Multiple regression analysis is used to examine the relationship between several independent variables and a dependent variable (Tabachnick & Fidell, 2007). This statistical technique helps to determine the extent to which independent variables

influence the dependent variable and identifies the relative contribution of each independent variable in explaining the variation in the dependent variable.

The estimated multiple regression model is

$Y = f(X_1, X_2, X_3, \ldots\ldots\ldots, X_k)$

Where;

Y= the value of dependent variable

$X_1, X_2, X_3$= the value of independent variable

The statistical data from the model are as follows:

$Y = f(X_1, X_2, X_3, X_4, X_5)$

The variables used in the model's construction are as follows:

Y = Patient Satisfaction

$X_1$= Tangibility

$X_2$= Reliability

$X_3$= Responsiveness

$X_4$= Assurance

$X_5$= Empathy

To ensure the validity and reliability of multiple regression analysis, several important assumptions must be satisfied before interpreting the results. Some of the key assumptions include linear relationships, normally of residuals, multicollinearity and homoscedasticity. The first assumption of multiple regression analysis is the existence of linear relationships. The assumption assumes that there will exist some sort of linear relationship between the independent variables and the dependent variable. The linear relationship between the different variables can be evaluated graphically through scatterplots. The data is expected to be free from any form of outlier since outliers will affect the regression outcome. Cook's Distance values are usually considered while evaluating regression. When Cook's Distance values are less than 1, then it suggests no influence by any case on the outcome.

Multicollinearity exists when there is high correlation between the independent variables. This situation may affect the stability and reliability of the regression coefficients. Multicollinearity can be diagnosed through use of the correlation matrix, tolerances and the variance inflation factor (VIF). High correlation (greater than 0.80) between the independent variables indicates multicollinearity while high tolerances

(>0.20) and low variance inflation factors (<10) imply multicollinearity is not a major issue in the regression model.

Normality of residuals is another major assumption of multiple regression analysis. The assumption implies that the errors in regression model are normally distributed. The normality of residuals can be verified by plotting graphical tools, including histograms and probability-probability (P-P) plots. When points plotted on a P-P plot lie close to the straight diagonal line, it is an indication of normally distributed residuals.

Homoscedasticity is the assumption that the variance of the residuals is constant across levels of the independent variables. In other words, the spread of the error terms should be the same regardless of the values of the predictors. This assumption can be examined by plotting a scatter plot of standardized residuals against predicted values. If the points are randomly distributed without clear pattern, the assumption of homoscedasticity is satisfied. The presence of heteroscedasticity, which violates the assumption, may be indicated by a funnel-shaped pattern.

### 3.4.5 Simple Linear Regression Analysis

Simple linear regression analysis is a statistical technique used to examine the relationship between one independent variable and one dependent variable. This method helps to determine how changes in the independent variable influence the dependent variable and can also be used to predict the value of the dependent variable based on the independent variable. The general form of the simple linear regression equation is expressed as follows:

$Y = f(X)$

Where;

Y = Dependent variable

X = Independent variable

In this study, the regression model is specified as:

Y = Patient Loyalty

X = Patient Satisfaction

There are several key conditions that need to be met during simple linear regression analysis. The first condition is related to linearity, and it states that the connection between patient satisfaction and patient loyalty is expected to be linear.

When the relationship is not linear, the prediction provided by the regression model will be incorrect. The second condition refers to the homoscedasticity of residuals. This means that the variance of the residuals will remain the same regardless of the value of the independent variable.

The third condition concerns the independence of errors, where residuals are expected to be independent from each other. Otherwise, the variance of the coefficient may be biased. In addition, residuals need to be evaluated statistically and visually to verify that there are no correlations among them. Another crucial condition is that residuals have a normal distribution. Knowing how the distribution looks like for both patient satisfaction and patient loyalty will allow for identifying possible outliers.

# CHAPTER 4
# EMPIRICAL DATA ANALYSIS

This chapter presents the demographic characteristics of the respondents, patients' perceptions of each variable, the relationships between the independent and dependent variables, the effects of influencing factors on patient satisfaction, the impact of patient satisfaction on patient loyalty, and a summary of the hypothesis testing results.

## 4.1 Demographic Characteristics of Respondents

A total number of 150 patients who received treatment at the Shwe La Won Dental Clinic were selected for survey. The demographic characteristics of the respondents were analyzed according to gender, age, education level, occupation, income level, frequency of clinic visits per year, and types of dental treatments received. Table 4.1 to 4.7 show respondents' demographic data and categories.

### 4.1.1 Gender of Respondents

Respondents receiving dental healthcare services at Shwe La Won Dental Clinic are categorized into male and female groups.

**Table 4.1 Gender of Respondents**

| Sr. No. | Gender | Frequency | Percent (%) |
|---|---|---|---|
| 1 | Female | 75 | 50.0 |
| 2 | Male | 75 | 50.0 |
| | Total | 150 | 100 |

*Source:* Survey Data (2026)

As shown in Table 4.1, male and female respondents each constitute 50% of the sample, indicating an equal gender representation within the study. This balanced distribution minimizes gender bias and allows the findings to reflect the views of both male and female patients more accurately.

### 4.1.2 Age of Respondents

Participants were categorized into five distinct age brackets, such as under 20, 21–30, 31–40, 41–50, and over 50 years. The detailed distribution of these age demographics is presented in Table 4.2.

**Table 4.2 Age of Respondents**

| Sr. No. | Age (Years) | Frequency | Percent (%) |
|---|---|---|---|
| 1 | under 20 | 8 | 5.3 |
| 2 | 21-30 | 23 | 15.3 |
| 3 | 31-40 | 33 | 22.0 |
| 4 | 41-50 | 33 | 22.0 |
| 5 | Above 50 | 53 | 35.3 |
| | Total | 150 | 100 |

*Source*: Survey Data (2026)

According to the data in Table 4.2, 53 respondents are above 50, 33 are aged 31–40, and another 33 are in the 41–50 category. The younger demographics are represented by 23 respondents between 21 and 30, and 8 individuals under 20 years old. This indicates that the majority of participants are in the older age category. The older patients are more likely to seek dental healthcare services, possibly due to a higher prevalence of dental problems associated with aging.

### 4.1.3 Education of Respondents

The educational backgrounds of the participants are divided into six distinct levels, ranging from primary education to postgraduate studies. A detailed breakdown of the respondents' distribution across these categories is presented in Table 4.3.

**Table 4.3 Education of Respondents**

| Sr. No. | Education level | Frequency | Percent (%) |
|---|---|---|---|
| 1 | Primary School | 20 | 13.3 |
| 2 | Middle School | 27 | 18.0 |
| 3 | High School | 49 | 32.7 |
| 4 | Undergraduate | 13 | 8.7 |
| 5 | Graduate | 36 | 24.0 |
| 6 | Postgraduate | 5 | 3.3 |
| | Total | 150 | 100 |

*Source*: Survey Data (2025)

According to Table 4.3, there are 20 respondents in primary school, 27 in middle school, 49 in high school, 13 who are undergraduates, 36 who are graduates, and 5 who are postgraduates. In terms of education level, the majority of the respondents have at

least high school qualification. High school education is also the most common academic qualification for all the sample. Patients who have at least high school education are most likely to be aware about health information and they will do better at taking care of their teeth such as by brushing teeth regularly and proceed for dental check-up. The result indicated that respondents are in a moderate educational status and are therefore considered moderately aware with better health behaviors for their oral health.

### 4.1.4 Occupation of Respondents

Respondents' occupations are grouped into five sectors to facilitate the study's analysis. These include students, private and government staff, business owners, and a general category for other professions, as shown in Table 4.4.

**Table 4.4 Occupation of Respondents**

| Sr. No. | Occupation | Frequency | Percent (%) |
|---|---|---|---|
| 1 | Student | 14 | 9.3 |
| 2 | Private Staff | 26 | 17.3 |
| 3 | Government Staff | 9 | 6.0 |
| 4 | Own Business | 41 | 27.3 |
| 5 | Others (retirees and farmers) | 60 | 40.0 |
| | Total | 150 | 100.0 |

*Source:* Survey Data (2026)

Table 4.4 details the professional backgrounds of the respondents: 60 are categorized as others (including retirees and farmers), 41 operate their own businesses, 26 are employed in the private sector, 14 are students, and 9 are government staff members. Based on this result, it is possible that most participants, particularly those in the non-formal labor sector including retirees, farmers, and other similar occupations, would have more free time to visit dental clinics than those who work in the formal labor sector. In comparison, individuals belonging to the formal labor sector may not have sufficient free time to attend dental clinics since they usually have set working hours, thus lowering their likelihood to visit clinics.

### 4.1.5 Income of Respondents

To analyze the economic background of the respondents, their monthly earnings are grouped into four categories, ranging from less than 300,000 Kyats to more than 800,000 Kyats. Detailed figures are provided in the following table.

**Table 4.5 Income of Respondents**

| Sr. No. | Income (Kyats) | Frequency | Percent (%) |
|---|---|---|---|
| 1 | Under 300,000 | 15 | 10.0 |
| 2 | Between 300,001 and 500,000 | 37 | 24.7 |
| 3 | Between 500,001 and 800,000 | 36 | 24.0 |
| 4 | Above 800,000 | 62 | 41.3 |
| | Total | 150 | 100 |

*Source:* Survey Data (2026)

Data from Table 4.5 indicates that the largest segment of the study consists of 62 patients who earn a monthly income exceeding 800,000 Kyats. Additionally, the income brackets between 300,001 and 500,000 Kyats and between 500,001 and 800,000 Kyats are represented by 37 and 36 respondents, respectively. The smallest group comprises 15 individuals with monthly earnings below 300,000 Kyats. This means that the respondents belong to the middle - to higher - income levels. Most respondents have rather high purchasing power and could perhaps have affects their choice of dental services. Higher income individuals are likely to select private clinics because they could afford higher prices of the treatment and prefer the service quality, comfort, latest technology available, waiting time, etc. Conversely, lower income level people are probably more price sensitive and will be more likely to visit the cost-effective or public health services. The finding imply that the income level seems to play an essential role for patients' preferences toward their health services.

### 4.1.6 Frequency of Clinic Visits Per Year

The annual frequency of dental clinic visits among the participants is categorized into five distinct groups: once, twice, three times, four times, and more than four times per year. The distribution of these visit frequencies is illustrated in the table below.

**Table 4.6 Frequency of Clinic Visits of Respondents**

| Sr. No. | Frequency of Clinic Visits | Frequency | Percent (%) |
|---|---|---|---|
| 1 | Once | 33 | 22.0 |
| 2 | Twice | 57 | 38.0 |
| 3 | Three Times | 25 | 16.7 |
| 4 | Four Times | 21 | 14.0 |
| 5 | Above Four Times | 14 | 9.3 |
| | Total | 150 | 100 |

*Source:* Survey Data (2026)

As shown in Table 4.6, 33 respondents visit once, 57 respondents visit twice, 25 respondents visit three times, 21 respondents visit four times, and 14 respondents visit above four times. The majority of the respondents visit dentists twice a year, according to the frequency distribution table. Most patients will usually visit dentists periodically or when in need for dental treatments and visit the dentist infrequently. The reason may be that not many have severe problems to visit the dentist regularly, which can lead to the tendency that many people only visit the dentist when there are pain or other oral health problems. In addition, routine preventive dental check-ups may not be a common practice among all respondents. The results imply that dental clinic utilization is relatively moderate, with most patients preferring occasional visits rather than regular preventive care.

### 4.1.7 Types of Dental Treatment of Respondents

To analyze the utilization of clinical services, the study grouped dental treatments into five sectors: oral checkups and cleaning, fillings, extractions, prosthetics, and others, as detailed in the following table.

**Table 4.7 Types of Dental Treatment of Respondents**

| Sr. No. | Types of Dental Treatment | Frequency | Percent (%) |
|---|---|---|---|
| 1 | Oral Checkup and Oral Cleaning | 23 | 15.3 |
| 2 | Cavity Filling | 31 | 20.7 |
| 3 | Tooth Extraction | 46 | 30.7 |
| 4 | Dental Implant | 31 | 20.7 |
| 5 | Others (dental scaling and root extraction) | 19 | 12.7 |

| | | | |
|---|---|---|---|
| | Total | 150 | 100 |

*Source*: Survey Data (2026)

According to Table 4.7, 23 respondents receive oral checkups and oral cleaning, 31 receive cavity fillings, 46 receive tooth extractions, 31 receive dental implants, and 19 respondents receive other treatments, including dental scaling and root extraction. The findings demonstrate that tooth extraction is the most common dental treatment among the respondents. Most of the respondents came for treatment when their dental problems reached an advance stage rather than the early stage or preventive stage. High frequency of extraction would probably suggest later presentation for treatment. Dental conditions, like caries or infection, can become very intense, thus no longer be repairable. On the other hand, few respondents sought preventive services like dental checkup or cleaning, which would reflect either awareness of preventive care is relatively low or preventive practices is less frequent among respondents. The findings suggested that preventive dental care does not commonly practice among the respondents and majority of them visit clinic when dental problems become severe.

## 4.2 Patient Perception on Influencing Factors of Shwe La Won Dental Clinic

This part of the study evaluates the five factors influencing patient satisfaction at Shwe La Won Dental Clinic, specifically focusing on tangibility, reliability, responsiveness, assurance, and empathy.

### 4.2.1 Patient Perception on Tangibility

Tangibility directly relates to the patients' expectations of service quality in the context of health care. Ensuring that patients are surrounded by an environment, which is well maintained, clean, and aesthetically appealing increases their level of trust, comfort and assurance in terms of the services provided. Tangibility is found to be one of the determining factors for patients' satisfaction. This dimension of tangibility is measured with five questionnaires, which reflect respondent answers. Table 4.8 illustrates the descriptive statistical analysis of these findings within the study.

**Table 4.8 Patient Perception on Tangibility**

| Sr. No. | Descriptions | Mean | S. D |
|---|---|---|---|
| 1 | Using modern Digital X-ray and ultrasonic scaling machines | 5.96 | .785 |
| 2 | Staff adherence to neat uniforms, gloves, and masks | 6.27 | .739 |
| 3 | Cleanliness and tidiness of the patient waiting area and seating | 6.19 | .841 |
| 4 | Professional appearance of patient cards, brochures, and receipts | 5.69 | 1.016 |
| 5 | Quality and cleanliness of clinical instruments and medication | 6.30 | .653 |
| Overall Mean | | 6.08 | |

*Source:* Survey Data (2026)

According to table 4.8, the total mean of the tangibility is 6.08. This finding suggests a high agreement between participants, implying that the physical environment and facilities of the clinic satisfy their needs and expectations. The tangibility factors are satisfactorily perceived by patients. The maximum value is “Quality and cleanliness of clinical instruments and medication” with an average score of 6.30. It indicates high confidence of patients in hygienic conditions and quality of equipment used at the clinic. The minimum value is "Professional appearance of patient cards, brochures, and receipts" with an average score of 5.69. Thus, while the physical environment of the clinic can be deemed satisfactory, there may be some gaps in relation to the professional appearance of the patient information materials. The value of the standard deviation for design of the patient's material is 1.016. This shows that the respondents differ in their opinion of this attribute as the standard deviation value is more than 1.00. It can be assumed that patients have different expectations and perceptions about the appearance of these materials, leading to inconsistency in satisfaction levels related to this aspect of tangibility.

### 4.2.2 Patient Perception on Reliability

Reliability is a fundamental determinant in fostering patient trust and maintaining the standard of healthcare delivery. The consistent provision of precise,

dependable, and punctual services significantly enhances patient confidence and overall satisfaction levels. Within this study, the reliability dimension is assessed through five specific survey items, the descriptive statistical findings of which are detailed in Table 4.9.

**Table 4.9 Patient Perception on Reliability**

| Sr. No. | Descriptions | Mean | S. D |
|---|---|---|---|
| 1 | Providing treatment according to scheduled appointment times | 5.98 | .878 |
| 2 | Explaining medical information in an easily understandable way | 6.28 | .844 |
| 3 | Accuracy of procedures from the initial visit through every stage | 5.91 | .859 |
| 4 | Prevention of post-treatment complications like toothaches | 6.03 | .870 |
| 5 | Provision of necessary dental health knowledge and advice | 6.03 | .798 |
| Overall Mean | | 6.05 | |

*Source*: Survey Data (2026)

According to the results presented in Table 4.9, the overall mean score for the dimension of reliability is 6.05, shows that patients generally highly agree about the reliability of the clinic. The maximum value is "Explaining the information of medical condition in an easy-understand way" with the mean score of 6.28. It can be inferred that the clinic is excellent at explaining medical information effectively, thus contributing to the greater understanding of their condition by the patient and therefore treatment can go on smoother. The minimum value is "Accuracy of procedure of the initial stage till the last stage" with the mean score of 5.91. While the clinic is perceived as generally dependable, these findings implies that further enhancements in service accuracy are necessary. Strengthening consistency throughout the entire treatment process could more effectively consolidate patient trust and long-term confidence in the study's context.

### 4.2.3 Patient Perception on Responsiveness

To enhance the patients' experience, it is imperative that health care providers respond swiftly and deliver the needed support. Response of health care providers ensures that patients feel sufficient support from providers, and thus enhances the patients' level of satisfaction. To assess this factor, five measuring items are used, and the results obtained from the assessment process are presented in Table 4.10.

**Table 4.10 Patient Perception on Responsiveness**

| Sr. No. | Descriptions | Mean | S. D |
|---|---|---|---|
| 1 | Minimizing patient waiting time for medical treatment | 6.13 | .838 |
| 2 | Speed and precision of dental surgical procedures | 6.21 | .885 |
| 3 | Friendly and warm communication by the clinic staff | 6.21 | .808 |
| 4 | Coordination of appointments via phone or in-person for convenience | 5.51 | 1.263 |
| 5 | Patiently explaining answers to post-treatment inquiries | 6.14 | .852 |
| Overall Mean | | 6.04 | |

*Source*: Survey Data (2026)

Based on the data in Table 4.10, the aggregate mean score for responsiveness is 6.04. This result indicates that the study's respondents generally perceive the clinic's staff as being attentive and timely in addressing their medical needs. Both " speed and precision of dental surgical procedures " and " friendly and warm communication by the clinic staff " share the maximum value of 6.21. The study concludes that the clinic staff is highly perceived as prompt and helpful in their service delivery. " Coordination of appointments via phone or in-person for convenience " is the minimum mean value of 5.51. It can be interpreted that the clinic should focus more on improving its scheduling and appointment management system. The standard deviation for appointment management is 1.263, which is significantly greater than 1, showing that patients have diverse experiences and different views on how appointments are handled.

### 4.2.4 Patient Perception on Assurance

Assurance plays an important role in affecting patients' reliance and trust in the medical services patients receive. Assurance is associated with the information,

capability and expertise of the health care providers, and it makes the patients feel more secure while receiving medical care. The respondents' perceptions of assurance at the clinic are examined using survey questionnaire items. The descriptive statistical results of assurance are shown in Table 4.11.

**Table 4.11 Patient Perception on Assurance**

| Sr. No. | Descriptions | Mean | S. D |
|---|---|---|---|
| 1 | Accurate verification and management of patient medical records | 5.54 | 1.156 |
| 2 | Provision of skillful treatment using high-quality medicines | 6.03 | .870 |
| 3 | Error-free and neat execution of dental implants or repairs | 5.86 | 1.075 |
| 4 | Reliability of dental X-rays and surgical operations | 5.34 | 1.242 |
| 5 | Overall trustworthiness of the clinic's medical services | 5.95 | .814 |
| Overall Mean | | 5.75 | |

*Source*: Survey Data (2026)

According to Table 4.11, the mean score for assurance is 5.75, meaning that the clinic offers reliable and professional health care services. Most of the assurance factors are well perceived by patients. The maximum value in terms of assurance is "Provision of skillful treatment using high-quality medicines" with the mean score being equal to 6.03. This can be understood in the sense that the patients feel safe and assured due to professionalism and skillfulness of healthcare providers and due to the quality of medicines used in the treatment process. The minimum value for assurance is "Reliability of dental X-rays and surgical operations" with the mean score of 5.34. It is concluded that although the degree of assurance is acceptable, there is some space for improvement of the patient assurance concerning more complicated and specialized procedures including X-rays and surgeries. There is an opportunity to make patients more assured with regard to these procedures due to the communication and explanation of the procedures' features. The standard deviation for trust in these procedures is 1.241, which indicates that the data is somewhat dispersed. This suggests that respondents have varying opinions regarding the level of assurance provided during

specialized treatments, reflecting differences in patient experiences and expectations toward these procedures.

### 4.2.5 Patient Perception on Empathy

Empathy constitutes a crucial factor in service quality because it focuses on the ability of health care professionals to acknowledge and take into consideration the emotional conditions, particular needs, and personal problems of patients. Empathy involves the delivery of compassionate and individualized care, which is essential for fostering a sense of emotional support and personal value throughout the treatment process. In this study, the empathy aspect will be examined through the use of five questionnaire questions, with the results presented in Table 4.12.

**Table 4.12 Patient Perception on Empathy**

| Sr. No. | Descriptions | Mean | S. D |
|---|---|---|---|
| 1 | Giving individualized attention to each patient's needs | 5.61 | 1.060 |
| 2 | Providing care focused on minimizing patient pain during treatment | 6.09 | .874 |
| 3 | Courteous and polite treatment of a patient's family or friends | 6.11 | .845 |
| 4 | Prioritizing long-term oral health over unnecessary treatments | 5.89 | .921 |
| 5 | Showing understanding and care toward anxious or fearful patients | 5.85 | .908 |
| Overall Mean | | 5.91 | |

*Source*: Survey Data (2026)

Based on the data in Table 4.12, the overall mean score for empathy is 5.91, showing that there is a generally high level of agreement from the respondents about the display of caring and patient-oriented service delivery at the clinic. It indicates that the empathy factors are perceived positively by the patients. The maximum value is "Courteous and polite treatment of a patient's family or friends" with an average score of 6.11. The interpretation is that patients feel that the clinic staff treat them not only politely but also their family members. This is an indication of a warm service experience that brings satisfaction to the patients. The minimum value is "Giving individualized attention to each patient's needs" with a score of 5.61. It can be

concluded that although patients generally perceive a good level of empathy, there is still room for improvement in providing more personalized attention to each patient. Enhancing this aspect may further strengthen patient satisfaction and emotional connection with the service. Standard deviations scores from 0.845 to 1.060 indicate moderate variations in responses. Particularly, the deviation scores greater than 1 in giving individualized attention, which shows that patients view inconsistency in provision of individualized attention in the clinic.

### 4.2.6 Perception on Patient Satisfaction

Patient satisfaction represents an aggregate evaluation of healthcare services, shaped by the experiences, expectations, and perceptions of the care provided. As a fundamental indicator of service performance, it measures the clinic's effectiveness in meeting patient needs through efficiency and quality delivery. Within this study, patient satisfaction is assessed using five survey items, and the resulting descriptive statistics are presented in Table 4.13.

**Table 4.13 Perception on Patient Satisfaction**

| Sr. No. | Descriptions | Mean | S. D |
|---|---|---|---|
| 1 | Satisfaction with the excellent quality of dental services | 6.13 | .711 |
| 2 | Satisfaction with the professional expertise of the dentist | 6.25 | .787 |
| 3 | Satisfaction with the patience of staff in solving health difficulties | 6.17 | .849 |
| 4 | Satisfaction with the service provided to patients and families | 5.85 | 1.110 |
| 5 | Satisfaction with the punctuality of clinic operating hours | 6.29 | .879 |
| Overall Mean | | 6.14 | |

*Source*: Survey Data (2026)

According to the findings presented in Table 4.13, the aggregate mean score for patient satisfaction stands at 6.14. This result signifies a high degree of contentment among the participants regarding the healthcare services delivered by the clinic. This finding shows that patients generally have a positive perception of the clinic's service quality and overall healthcare experience. The maximum value is "Satisfaction with the punctuality of clinic operating hours" with a mean score of 6.29. This can be interpreted

as patients highly appreciating the clinic's effective time management and convenient operating schedule. This indicates strong satisfaction with the clinic's reliability and respect for patients' time, which contributes positively to their overall experience. The minimum value is "Satisfaction with the services provided to patients and families" with a mean score of 5.85. The study concludes that although patients are generally satisfied, there is still room for improvement in enhancing service quality related to the experience of patients' families. Strengthening this aspect may further improve overall satisfaction and service perception. The standard deviation for family services is 1.110, which is greater than 1, indicating that the data is relatively scattered. This suggests that respondents have differing opinions regarding the level of service provided to patients and their families, reflecting variation in individual experiences within the clinic.

### 4.2.7 Perception on Patient Loyalty

Patient loyalty indicates the level to which patients are willing to continue using the same healthcare provider and maintain a long-term relationship based on trust, satisfaction, and positive service experiences. It reflects patients' commitment to return to the clinic and their confidence in the quality of care provided. The respondents' perceptions of patient loyalty at the clinic are assessed through a survey questionnaire items. Table 4.14 presents the descriptive statistical results of patient loyalty.

**Table 4.14 Perception on Patient Loyalty**

| Sr. No. | Descriptions | Mean | S. D |
|---|---|---|---|
| 1 | Intention to return exclusively for future dental treatments | 5.91 | 1.003 |
| 2 | Willingness to recommend the clinic to friends and relatives | 6.01 | .966 |
| 3 | Sharing positive experiences about the service with others | 6.05 | .933 |
| 4 | Confidence in using the clinic's services and medical equipment | 6.06 | .985 |
| 5 | Full trust and confidence in the clinic's overall care | 6.19 | .915 |
| Overall Mean | | 6.04 | |

*Source*: Survey Data (2026)

According to the findings presented in Table 4.14, the aggregate mean score for

patient loyalty is 6.04, indicating a high level of loyalty among respondents toward the clinic. This suggests that patients generally have a strong intention to maintain their relationship with the clinic and continue receiving dental services there in the future. The maximum value is “Full trust and confidence in the clinic’s overall care” with a mean score of 6.19. It can be concluded that patients have a strong sense of trust in the clinic’s services, which contributes significantly to their willingness to maintain long-term engagement with the clinic. This reflects positive perceptions of service quality and reliability. The minimum value is “Intention to return exclusively for future dental treatments” with a mean score of 5.91. The study concludes that at although patients are generally willing to return to the clinic, their level of exclusive commitment varies slightly. This indicates that some patients may still consider alternative options for future dental care. The standard deviation for permanent visit intention is 1.003, which is slightly above 1, indicating a moderate level of variation in responses. This suggests that there are differences in patient opinions regarding long-term loyalty, reflecting varying degrees of commitment and personal preferences among respondents.

## 4.3 Reliability Statistics for Service Quality Dimensions, Patient Satisfaction, and Loyalty

Reliability is defined as the consistency with which repeated measures yield identical results over time and across different observers (Patton, 1990). To maintain data accuracy, a standardized questionnaire is administered to all participants in this study. Cronbach's alpha is calculated to evaluate the internal consistency of the variables. Generally, an alpha coefficient below 0.6 is considered poor, while values exceeding 0.7 and 0.8 are regarded as acceptable and good, respectively. The reliability coefficients for each variable are presented in Table 4.15.

**Table 4.15 Reliability Statistics for Service Quality Dimensions, Patient Satisfaction, and Loyalty**

| Sr. No. | Factors | No. of Items | Cronbach’s Alpha |
|---|---|---|---|
| 1 | Tangibility | 5 | 0.790 |
| 2 | Reliability | 5 | 0.829 |
| 3 | Responsiveness | 5 | 0.794 |

| | | | |
|---|---|---|---|
| 4 | Assurance | 5 | 0.853 |
| 5 | Empathy | 5 | 0.827 |
| 6 | Patient Satisfaction | 5 | 0.858 |
| 7 | Patient Loyalty | 5 | 0.948 |

*Source*: Survey Data (2026)

The findings presented in Table 4.15 indicate that all measurement scales demonstrate high internal consistency. Among the variables examined, patient loyalty demonstrated the highest reliability with a coefficient of 0.948. Patient satisfaction also showed strong internal consistency, yielding a coefficient of 0.858. Such high alpha values confirm that the survey instruments used are highly dependable for measuring these determinants. Within the service quality dimensions, assurance and reliability report the highest reliability values of 0.853 and 0.829, respectively. Since all calculated coefficients exceed the recommended threshold, the measurement scales are considered highly reliable. Therefore, the questionnaire used in this study can be regarded as a dependable instrument. These findings confirm that the collected data are consistent and appropriate for further statistical analyses, including correlation and multiple regression.

## 4.4 Relationship Between Service Quality Dimensions and Patient Satisfaction

To evaluate the associations between service quality factors and patient satisfaction, Pearson correlation coefficients are calculated, as presented in Table 4.16. This analysis serves to examine the strength and significance of the linear relationships between the study's independent and dependent variables.

**Table 4.16 Correlation between Service Quality and Patient Satisfaction**

| Sr. No. | Independent Variables | Pearson Correlation Coefficient | P-value |
|---|---|---|---|
| 1 | Tangibility | 0.569** | 0.000 |
| 2 | Reliability | 0.611** | 0.000 |
| 3 | Responsiveness | 0.590** | 0.000 |
| 4 | Assurance | 0.710** | 0.000 |
| 5 | Empathy | 0.778** | 0.000 |

*Source*: Survey Data (2026)

Note; **Correlation is significant at the 0.01 level (2-tailed)

The results presented in Table 4.16 illustrate the relationship between the dependent variable, patient satisfaction, and the five determinants of patient satisfaction: tangibility, reliability, responsiveness, assurance, and empathy. The correlation analysis indicates that tangibility has a coefficient of 0.569, which is statistically significant at the 1% level (p = 0.000). Reliability and responsiveness also demonstrate significant positive correlations, with coefficients of 0.611 and 0.590, respectively. Furthermore, assurance exhibits a strong correlation of 0.710. Notably, empathy yields the highest correlation coefficient at 0.778. All identified variables are statistically significant at the 1% significance level, suggesting a strong association with the satisfaction levels observed in this study.

The correlation coefficients of reliability, responsiveness, assurance, and empathy are above 0.50, indicating strong positive relationships with patient satisfaction. Among these variables, empathy demonstrates the strongest relationship, followed by assurance, suggesting that understanding patient needs and providing confidence and trust are critical factors influencing patient satisfaction. Tangibility also shows a moderate to strong positive relationship with patient satisfaction, with a correlation coefficient above 0.50.

According to the Pearson correlation analysis, the results indicate that all five service quality dimensions have significant positive relationships with patient satisfaction. This implies that improvements in any of these service quality dimensions are likely to enhance patient satisfaction. Therefore, it can be concluded that service quality plays an important role in determining patient satisfaction.

## 4.5 Relationship between Patient Satisfaction and Patient Loyalty

Table 4.17 illustrates the relationship between patient satisfaction and patient loyalty. To evaluate whether a significant linear relationship exists between the two variables, Pearson correlation analysis is applied.

**Table 4.17 Correlation between Patient Satisfaction and Patient Loyalty**

| Sr. No. | Independent Variables | Pearson Correlation Coefficient | P-value |
|---|---|---|---|
| 1 | Patient Satisfaction | .792** | .000 |

*Source*: Survey Data (2026)

Note; **. Correlation is significant at the 0.01 level (2-tailed).

According to Table 4.17, the correlation coefficient between patient satisfaction and patient loyalty is 0.792, with a significance value of 0.000, indicating statistical

significance at the 1% level. This demonstrates a strong and positive relationship between patient satisfaction (independent variable) and patient loyalty (dependent variable). The value of the correlation coefficient (r = 0.792) shows that higher levels of patient satisfaction are associated with increased patient loyalty. In other words, patients who are satisfied with the dental clinic's service quality including treatment effectiveness, staff attitude, communication, and overall service experience are more likely to return to the clinic and recommend it to others.

## 4.6 Analysis of the Determinants of Patient Satisfaction

This study analyzes the independent variables (tangibility, reliability, responsiveness, assurance, empathy) and dependent variable (patient satisfaction). The findings presented in Table 4.18 help identify key areas for improving service quality and enhancing patient satisfaction.

**Table 4.18 Multiple Regression Analysis of the Determinants of Patient Satisfaction**

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | VIF |
|---|---|---|---|---|---|---|
| | b | Std. Error | B | | | |
| (Constant) | 0.726 | 0.358 | | 2.026 | 0.045 | |
| Tangibility | 0.012 | 0.083 | 0.010 | 0.141 | 0.888 | 2.369 |
| Reliability | 0.096 | 0.074 | 0.090 | 1.300 | 0.196 | 2.223 |
| Responsiveness | 0.101 | 0.076 | 0.101 | 1.323 | 0.188 | 2.693 |
| Assurance | 0.221*** | 0.063 | 0.261 | 3.517 | 0.001 | 2.556 |
| Empathy | 0.487*** | 0.069 | 0.494 | 7.077 | 0.000 | 2.260 |
| $R^2$ | 0.690 | | | | | |
| Adjusted $R^2$ | 0.679 | | | | | |
| F-Value | 64.000*** | | | | | |

*Source*: Survey Data (2026)

Note; *** Significant at 1% level

According to Table 4.18, the results of the multiple regression analysis indicate that assurance and empathy have significant effects on patient satisfaction, while tangibility, reliability, and responsiveness are not significant predictors. The value of $R^2$ is 0.690, which means that 69.0% of the variation in patient satisfaction can be

explained by the five service quality dimensions. The adjusted $R^2$ is 0.679, indicating that 67.9% of the variance is explained after adjusting for the number of predictors. The F-value of 64.000 indicates that the overall model is statistically significant.

The regression coefficient between empathy and patient satisfaction is 0.487 ($t = 7.077$, $p = 0.000$, $p < 0.01$). This indicates that empathy has a strong positive effect on patient satisfaction at the 1% significance level. Therefore, an increase in empathy will significantly increase patient satisfaction. This implies that when healthcare providers show greater care, understanding, and individualized attention to patients, satisfaction levels are highly improved.

The regression coefficient between assurance and patient satisfaction is 0.221 ($t = 3.517$, $p = 0.001$, $p < 0.01$). This shows that assurance also has a positive and significant effect on patient satisfaction at the 1% significance level. Thus, improvements in staff competence, courtesy, and ability to inspire trust and confidence will lead to higher patient satisfaction.

On the other hand, responsiveness has a regression coefficient of 0.101 ($t = 1.323$, $p = 0.188$, $p > 0.05$), indicating that responsiveness has no statistically significant effect on patient satisfaction. Although the relationship is positive, it is not strong enough to be significant. This suggests that promptness and willingness to help patients may not be the primary factors influencing their satisfaction, as patients may place greater emphasis on other aspects such as empathy and assurance.

Similarly, reliability shows a regression coefficient of 0.096 ($t = 1.300$, $p = 0.196$, $p > 0.05$), which indicates no significant effect on patient satisfaction. Even though reliability reflects the ability to perform services dependably and accurately, it may be considered a basic expectation by patients and therefore does not significantly influence their satisfaction levels.

Moreover, tangibility has the lowest regression coefficient of 0.012 ($t = 0.141$, $p = 0.888$, $p > 0.05$), indicating that it does not have a statistically significant effect on patient satisfaction. This implies that physical facilities, equipment, and appearance of personnel may not be key determinants of satisfaction compared to more interpersonal service quality dimensions. In addition, the VIF values for all independent variables are below 10, indicating that there is no serious multicollinearity problem among the variables.

Appendix B presents the histogram, normal P–P plot, and scatterplot of standardized residuals, which were examined to assess the assumptions of normality

and homoscedasticity in the regression model. The histogram shows a roughly bell-shaped distribution centered around zero, indicating that the residuals are approximately normally distributed. This suggests that the error terms are symmetrically distributed. The Normal P–P Plot further supports this result, as most of the plotted points lie close to the diagonal reference line, confirming the normality of residuals. In addition, the scatterplot of standardized residuals against standardized predicted values displays a random and scattered pattern with no clear trend or systematic structure. This indicates that the variance of the residuals remains constant across all levels of predicted values, thereby satisfying the assumption of homoscedasticity.

The results also indicate that responsiveness, reliability, and tangibility do not have statistically significant effects on patient satisfaction. This suggests that these factors may not be the primary determinants of patient satisfaction in the context of the dental clinic. Therefore, the clinic should place greater emphasis on enhancing empathy and assurance, as these factors significantly influence patient satisfaction. In particular, dental staff should provide more personalized care, show greater understanding of patient needs, and build trust and confidence during treatment. At the same time, although responsiveness, reliability, and tangibility are not significant, maintaining acceptable standards in these areas remains essential, as they represent basic expectations of patients.

## 4.7 Analysis of Patient Satisfaction and Patient Loyalty

To explore the connection between patient satisfaction and patient loyalty, Simple Linear Regression analysis was used and the results are shown in the following Table 4.19.

**Table 4.19 Simple Linear Regression Analysis of Patient Satisfaction and Patient Loyalty**

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | b | Std. Error | B | | |
| (Constant) | -0.017 | 0.386 | | -0.044 | 0.965 |
| Patient Satisfaction | 0.987*** | 0.062 | 0.792 | 15.807 | 0.000 |

| | |
|---|---|
| $R^2$ | 0.628 |
| Adjusted $R^2$ | 0.625 |
| F-value | 249.846*** |

*Source*: Survey Data (2026)

Note; *** Significant at 1% level

According to Table 4.19, the F-value of the overall regression model is 249.846, indicating that the model is highly significant at the 1% level. The value of $R^2$ is 0.628, which means that 62.8% of the variation in patient loyalty can be explained by patient satisfaction. Similarly, the Adjusted $R^2$ value is 0.625, indicating that 62.5% of the variance in patient loyalty is explained by the model after adjustment. The p-value between patient satisfaction and patient loyalty is 0.000, which is less than the significant level of 0.001. Therefore, patient satisfaction has a statistically significant influence on patient loyalty at the 1% level. The standardized coefficient (beta) value is 0.792, showing a strong positive relationship between patient satisfaction and patient loyalty. This finding indicates that as patient satisfaction increases, patient loyalty also increases. In other words, patients who are more satisfied with the clinic are more likely to revisit and recommend the clinic to others.

Appendix B presents the histogram, normal P-P plot, and scatterplot of standardized residuals, which were used to assess the assumptions of normality and homoscedasticity in the regression model. The histogram shows a roughly bell-shaped distribution centered around zero, indicating that the residuals are approximately normally distributed. This suggests that the errors are symmetrically distributed. The normal P-P plot further supports this result, as most of the plotted points lie close to the diagonal reference line, confirming the normality of residuals. Moreover, the scatterplot of standardized residuals against standardized predicted values displays a random pattern with no clear structure or trend. This indicates that the variance of residuals remains constant across all levels of predicted values, satisfying the assumption of homoscedasticity. These diagnostic results confirm that the key assumptions of the regression analysis are adequately met.

## 4.8 Hypotheses Results

The outcomes of the regression analysis, which reflect the hypothesis testing results, are presented in Table 4.19 below.

**Table 4.20 Hypotheses Results**

| Hypotheses | Statement | Decision |
|---|---|---|
| $H_1$ | Tangibility has a positive effect on patient satisfaction at Shwe La Won Dental Clinic | Rejected |
| $H_2$ | Reliability has a positive effect on patient satisfaction at Shwe La Won Dental Clinic | Rejected |
| $H_3$ | Responsiveness has a positive effect on patient satisfaction at Shwe La Won Dental Clinic | Rejected |
| $H_4$ | Assurance has a positive effect on patient satisfaction at Shwe La Won Dental Clinic | Accepted |
| $H_5$ | Empathy has a positive effect on patient satisfaction at Shwe La Won Dental Clinic | Accepted |
| $H_6$ | Customer Satisfaction has a positive effect on loyalty at Shwe La Won Dental Clinic | Accepted |

*Source*: Survey Data (2026)

The hypothesis results presented in Table 4.20 are based on survey data collected from 150 patients and examine the factors influencing patient satisfaction and loyalty. The analysis reveals that assurance ($H_4$) has a significant positive impact on patient satisfaction and this hypothesis was accepted. Similarly, empathy ($H_5$) also shows a significant positive effect on patient satisfaction and was therefore accepted. However, the hypotheses for tangibility ($H_1$), reliability ($H_2$) and responsiveness ($H_3$) were rejected, as their p-values were greater than the 0.05 significance level, indicating they do not play a primary role in shaping patient satisfaction in this study. Lastly, hypothesis ($H_6$), which states that patient satisfaction positively affects patient loyalty, was strongly supported and accepted. Overall, the findings highlight that empathy, assurance, and patient satisfaction significantly contribute to enhancing patient loyalty at Shwe La Won Dental Clinic.

# CHAPTER 5
# CONCLUSION

This chapter includes the findings and discussions, overall suggestions and recommendations, implication of the study and needs for the further researchers. This study emphasizes on the determinants of patient satisfaction and patient loyalty at Shwe La Won Dental Clinic in Nay Pyi Taw.

## 5.1 Findings and Discussions

This study aims to determine the factors affecting patient satisfaction and to determine the impact of patient satisfaction on patient loyalty at Shwe La Won Dental Clinic. This study incorporates five dimensions of service quality which are tangibility, reliability, responsiveness, assurance and empathy. This study utilizes primary and secondary data. A total number of 150 respondents participated in this study and primary data was collected through questionnaires with a seven-point Likert scale.

Based on the demographic characteristics, the number of male and female respondents are equal. With respect to age groups, patients of more than 50 years old are the greatest number which indicated that patients of higher age are more likely to seek dental treatment at the clinic. With respect to education level, most of the respondents have high school education. In terms of occupation, most of the respondents are in the "others" category which consists of majority of farmers. With respect to monthly income, most of the respondents' monthly income is above 800,000 kyats per month. In terms of visits frequency, most of the respondents visit the clinic no more than two times and with respect to treatments received, tooth extraction is the greatest.

Based on the correlation analysis, empathy has a significant positive correlation to patient satisfaction. This can be related to the dentist's understanding of the patients' worries, the amount of personal attention to patients, and respond to patients' emotional state. When a dental professional can address a patient's concerns and understand patient’s needs, the patient will be highly satisfied. Assurance has also found to have a significant positive correlation to patient satisfaction. This can be explained from the view point that knowledge and courteousness make patients believe the dentist. In dental services where there is the risk of uncertainty and anxiety to patients, trust on

dentists can create high satisfaction to the patients. Reliability is also found to have significant positive relationship with patient satisfaction.

Good treatment provision, punctuality in delivering service and minimizing errors reduce patients' confidence and influence their perception on patient satisfaction positively. Responsiveness demonstrates a moderate positive correlation with patient satisfaction. This may be explained by the fact that prompt assistance and willingness to address patient needs, while important, are not the primary determinants of satisfaction when compared to interpersonal care and professional competence. As a result, responsiveness only has a moderate positive impact on patient satisfaction. Tangibility also appears to have a moderate positive correlation with patient satisfaction, this is due to the role of the tangible aspects like facilities, equipment and appearance of service providers that have a positive influence on how patients perceive service quality in a superficial stage. However, greater emphasis is placed on the quality of interaction and treatment outcomes rather than on physical aspects alone.

In multiple regression analysis, empathy shows a statistically significant impact on patient satisfaction. This can be explained that good treatment provision through emotional caring can enhance patient satisfaction more than other variables. Moreover, assurance indicates a statistically significant influence on patient satisfaction. This is because service providers with high competence and knowledge will be seen as being trustworthy and will generate a feeling of safety, thereby building up positive satisfaction. In terms of the other determinants, tangibility, reliability and responsiveness are not statistically significant from the multiple regression analysis results. This can be attributed to the effects of these three determinants are not as prominent as empathy and assurance as higher impact on patient satisfaction is captured by empathy and assurance in healthcare quality.

Multiple regression analysis on patient satisfaction also has a significant positive correlation between patient satisfaction and patient loyalty. The more satisfied patients are with the services provided, the more likely they are to be loyal. This is explained as patients continuously receiving satisfactory treatment; this will enhance patient trust and develop favorable attitudes towards the service providers. This will encourage more visits to the same service providers, and create positive word of mouth effects.

## 5.2 Suggestions and Recommendations

Based on the study results, it is recommended for Shwe La Won Dental Clinic to strengthen patient satisfaction and foster patient loyalty. All the suggestions below aim to strengthen the quality performance for each dimension of service quality previously derived.

First, it is essential to develop empathy as an important element that influences patient satisfaction. Training sessions should be conducted to ensure that the employees understand and learn the importance of good communication and active listening skills in dealing with patients. Staffs need to relate well with the patients through effective communication and actively listen to patients' grievances. Moreover, creating an environment that will make patients feel relaxed will help to meet patients' needs and improve satisfaction levels. Small actions like recalling patient preferences, following-up after treatment, showing appreciation and recognizing the patient as an individual are approaches to improving the relationship between the staff and patients, which in turn strengthen patient loyalty. Other minor actions, such as appreciating the patients and showing concern for them after treatment, will improve staff-patient relationships.

Second, assurance has to be sustained and reinforced further. A clear explanation of diagnosis, procedure, and possible side effects must be provided in an easy-to-understand manner. Highlighting qualifications and consistent service delivery will enhance confidence. Patients, especially farmers and old-aged people, are more affected by the competency and the personal background of the dentist than the clinic itself. Doctors clearly explain treatment options, not only on restorations but also prevention, helps in perceiving the service as trustworthy and dependable. Maintaining both physical and emotional comfort throughout the treatments is extremely necessary.

Third, responsiveness needs improvement to facilitate fast service delivery. An effective appointment system needs to be in place to help decrease waiting time and optimize the flow of patients. Responsiveness can be enhanced through prompt response to patient queries by staff members. Both in-person, telephone, and computer inquiries need to be attended to in a timely manner. Providing appointment reminders, announcing delays and responding promptly to critical issues will be vital in addressing the aspect of responsiveness. Additionally, enhancing responsiveness requires internal improvements to be made. These include faster check-in process, management of patient records, and handling urgent cases efficiently.

Fourth, reliability should be enhanced to ensure that services are delivered in a correct manner and timely way. Appointments should be handled more carefully to minimize waiting time and to prevent appointment mix-up. Full and updated records should be kept to ensure continuous patient care. Standard operating procedures should be strictly adhered to minimize error in the services. Staff members should communicate with each other more actively. Other pragmatic elements such as appointment reminders may improve patients' recollection of appointments and reduce missed appointments. Improvement in reliability can improve patient consistency and confidence.

Finally, tangibility of services is a significant factor determining patients' perception of service quality. Clean, orderly, and pleasant environment should be provided. Routine maintenance and upgrade of equipment should be carried out. Staff members should have smart appearances. Clear and visually attractive materials, including brochures and posters, may help in explaining services provided in the facility. Patients will be able to understand more easily about services offered, thus encouraging them to think of preventative dental care before seeking treatment for existing problems.

Improving empathy, assurance, responsiveness, reliability, and tangibility is essential for enhancing overall patient satisfaction. Based on enhancing interpersonal interaction quality as well as efficient service delivery, the clinic can make a more pleasant patient experience. Not only building a trusting relationship with patients, improving the reliability would also ensure patient satisfaction in the long-term.

## 5.3 Implications of the Study

There are some practical and theoretical implications from this study for dental health care services, particularly at a private dental clinic in Myanmar. Theoretically, the results provide evidence for the suitability of the SERVQUAL model to dental service quality assessment. Among five service quality dimensions, empathy and assurance have impact on patient satisfaction. Therefore, emotional interaction and understanding, individually treatment and professional service competence will have positive effects on patient satisfaction. The lack of statistical significance for responsiveness, reliability, and tangibility in this study may represent that all service quality dimensions have not impacts equally on patient satisfaction.

Practically, it is recommended that Shwe La Won Dental Clinic focus on delivering empathetic and assurance services by providing care centered on patients,

enhancing interaction between health providers and patients, and improving competence in health professional skills to gain patient trust. Although responsiveness, reliability, and tangibility are not significant, clinics should not compromise them to insure seamless service delivery.

This study also provided implication to service providers and planner. Knowledge about which components have strongest impact on patients' satisfaction might assist service provider allocating limited resources effectively to improve critical service quality dimensions such as interaction and assurance. This could lead to patient satisfaction and more robust and long-term relationships between the clinic and their patients.

This study makes contribution for both theoretical perspective and practical one through evidence that SERVQUAL is relevant to dental healthcare service but it dimensions have differing impacts. Empathy and assurance are the two dimensions which provide greatest impact on patient satisfaction. The study has some limitations but provide important implication to improving the quality and service and decisions making process for the dental clinics.

## 5.4 Needs for Further Study

This study provides insightful implications regarding the satisfaction of the patients. However, a few limitations need to be recognized. Firstly, this study was carried out only at one private dental clinic, which limits the generalization. More research is recommended on other more than one clinic which may also include public dental care providers.

Secondly, the relatively small sample size could influence the reliability of this study. Therefore, larger samples are recommended for more accurate and robust results. Thirdly, this study design is cross-sectional which means that time-varying changes are not able to be caught up. Longitudinal research methods will be appreciated to study patient satisfaction dynamics.

Fourthly, a response bias could be arisen from the self-reported questionnaire survey. Mixed methods by the combinations of survey questionnaire with interview or focus group discussions are recommended for more comprehensive insight. The study was focused on SERVQUAL model, which did not take all the affecting factors into consideration. Therefore, other aspects such as cost, waiting time, accessibility,

technology should also be taken into account along with demographic variables for future research.

Finally, the study only analyzed patients' satisfaction. Other equally important outcomes such as patient loyalty, re-visit intention, long-term relationship with dentist are not explored. More expanded study will provide wider implications for practice and management decision making in dental services.

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**APPENDIX (A)**

# QUESTIONNAIRE

## Section (A)

Demographic Profile of Respondents

1. Gender of Respondents
   - Male ☐
   - Female ☐
2. Age of respondents
   - Under 20 years old ☐
   - 21 to 30 years ☐
   - 31 to 40 years ☐
   - 41 to 50 years ☐
   - Above 51 years old ☐
3. Education of respondents
   - Primary school ☐
   - Middle school ☐
   - High school ☐
   - Graduate ☐
   - Post Graduate ☐
4. Occupation of respondents
   - Student ☐
   - Private staff ☐
   - Government staff ☐
   - Business Owner ☐
   - Others
5. Income of respondents
   - Less than 300,000 ☐
   - Between 300,001 to 500,000 ☐
   - Between 500,001 to 800,000 ☐
   - Above 800,000 ☐
6. Frequency of visits to the clinic per year
   - One time ☐
   - Two time ☐

Three time ☐

Four time ☐

More than four time

7. Types of dental treatment

Oral Checkup and Oral Cleaning ☐

Cavity Filling ☐

Tooth Extraction ☐

Dental Implant ☐

Others ☐

## Section (B)

The following statements are measured using a 7-point scale. To indicate your level of agreement or disagreement with each statement, please mark a check (✓) based on the following:

1= Strongly Disagree, 2= Disagree, 3= Somewhat Disagree, 4= Neutral,

5= Somewhat Agree, 6= Agree, and 7= Strongly Agree.

| No. | Tangibility | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1 | Shwe La Won Dental Clinic uses modern Digital X-ray machines and dental scalers. | | | | | | | |
| 2 | The staff at Shwe La Won Dental Clinic wear neat uniforms, gloves, and masks. | | | | | | | |
| 3 | The waiting room and seating at Shwe La Won Dental Clinic are clean and tidy. | | | | | | | |
| 4 | The patient cards, brochures, and receipts used at Shwe La Won Dental Clinic are well-designed and neat. | | | | | | | |
| 5 | The clinical equipment and medicines used at Shwe La Won Dental Clinic are clean, tidy, and of high quality. | | | | | | | |

| No. | Reliability | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1 | Shwe La Won Dental Clinic provides treatment according to the scheduled appointment time. | | | | | | | |
| 2 | Shwe La Won Dental Clinic explains treatment-related information clearly so that patients can easily understand. | | | | | | | |
| 3 | Shwe La Won Dental Clinic performs every step of the treatment accurately from the first visit. | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4 | Shwe La Won Dental Clinic provides treatment to prevent post-treatment complications such as toothaches or pain. | | | | | | | |
| 5 | The dentists at Shwe La Won Dental Clinic provide necessary oral health knowledge and advice to patients. | | | | | | | |

| No. | Responsiveness | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1 | Shwe La Won Dental Clinic ensures that patients do not have to wait a long time for treatment. | | | | | | | |
| 2 | Treatments at Shwe La Won Dental Clinic are fast and accurate (e.g., oral surgery procedures). | | | | | | | |
| 3 | Staff at Shwe La Won Dental Clinic interact with patients in a friendly and welcoming manner. | | | | | | | |
| 4 | Staff at Shwe La Won Dental Clinic coordinate appointments effectively via phone or in person for patient convenience. | | | | | | | |
| 5 | Staff at Shwe La Won Dental Clinic patiently and clearly explain answers to patients' questions after treatment. | | | | | | | |

| No. | Assurance | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1 | Staff at Shwe La Won Dental Clinic check and manage patients' medical records accurately. | | | | | | | |
| 2 | Dentists at Shwe La Won Dental Clinic treat patients skillfully using high-quality medicines. | | | | | | | |
| 3 | Dentists at Shwe La Won Dental Clinic can perform dental implants or repairs neatly and without errors. | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4 | Dentists at Shwe La Won Dental Clinic can perform dental implants or repairs neatly and without errors. | | | | | | | |
| 5 | The medical services at Shwe La Won Dental Clinic are very trustworthy for patients. | | | | | | | |

| No. | Empathy | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1 | Dentists and staff at Shwe La Won Dental Clinic pay close attention to individual patients (e.g., asking for detailed medical history, remembering names and needs). | | | | | | | |
| 2 | Dentists and staff provide the best treatment and care (e.g., being careful to avoid pain during treatment). | | | | | | | |
| 3 | Staff interact politely and warmly with accompanying family members or friends. | | | | | | | |
| 4 | Shwe La Won Dental Clinic prioritizes the recovery of the patient's oral health (e.g., recommending only necessary long-term treatments over unnecessary ones). | | | | | | | |
| 5 | Dentists understand and provide careful treatment to patients who may feel anxious or fearful. | | | | | | | |

| No. | Patient Satisfaction | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1 | I am satisfied because the dental services at Shwe La Won Dental Clinic are excellent. | | | | | | | |
| 2 | I am satisfied because the dentists are highly skilled in providing treatments. | | | | | | | |
| 3 | I am satisfied because the dentists and staff patiently answer all oral health concerns. | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4 | I am satisfied because the services provided for patients and family members are excellent. | | | | | | | |
| 5 | I am satisfied because the clinic has precise opening and closing hours, ensuring no wasted time for patients. | | | | | | | |

| No. | Patient Loyalty | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1 | I will always come to Shwe La Won Dental Clinic for dental check-ups and treatments. | | | | | | | |
| 2 | I will encourage friends and relatives to visit Shwe La Won Dental Clinic. | | | | | | | |
| 3 | I will tell others about the good services at Shwe La Won Dental Clinic. | | | | | | | |
| 4 | I will confidently use the dental services and medical supplies at Shwe La Won Dental Clinic. | | | | | | | |
| 5 | I have full confidence in the treatments and services of Shwe La Won Dental Clinic. | | | | | | | |

*Source*: Own Compilation (2026) Adapted from Previous Research Studies

**Appendix (B)**

# STATISTICAL OUTPUTS

## I. Results of Correlation Analysis

**Correlations**

| | | tangible | reliabil-ity | Responsive-ness | assurance | empa-thy | satisfact-ion |
|---|---|---|---|---|---|---|---|
| tangible | Pearson Correlation | 1 | .652** | .683** | .565** | .576** | .569** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| reliability | Pearson Correlation | .652** | 1 | .607** | .546** | .629** | .611** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| responsiveness | Pearson Correlation | .683** | .607** | 1 | .693** | .500** | .590** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| assurance | Pearson Correlation | .565** | .546** | .693** | 1 | .656** | .710** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| empathy | Pearson Correlation | .576** | .629** | .500** | .656** | 1 | .778** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| satisfaction | Pearson Correlation | .569** | .611** | .590** | .710** | .778** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |

**. Correlation is significant at the 0.01 level (2-tailed).

**Correlations**

| | | satisfaction | loyalty |
|---|---|---|---|
| satisfaction | Pearson Correlation | 1 | .792** |
| | Sig. (2-tailed) | | .000 |
| | N | 150 | 150 |
| loyalty | Pearson Correlation | .792** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 150 | 150 |

**. Correlation is significant at the 0.01 level (2-tailed).

## II. Results of Multiple Regression Analysis

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .830[a] | .690 | .679 | .39735 | .690 | 64.000 | 5 | 144 | .000 |

a. Predictors: (Constant), empathy, responsiveness, reliability, tangible, assurance

b. Dependent Variable: satisfaction

**ANOVA[a]**

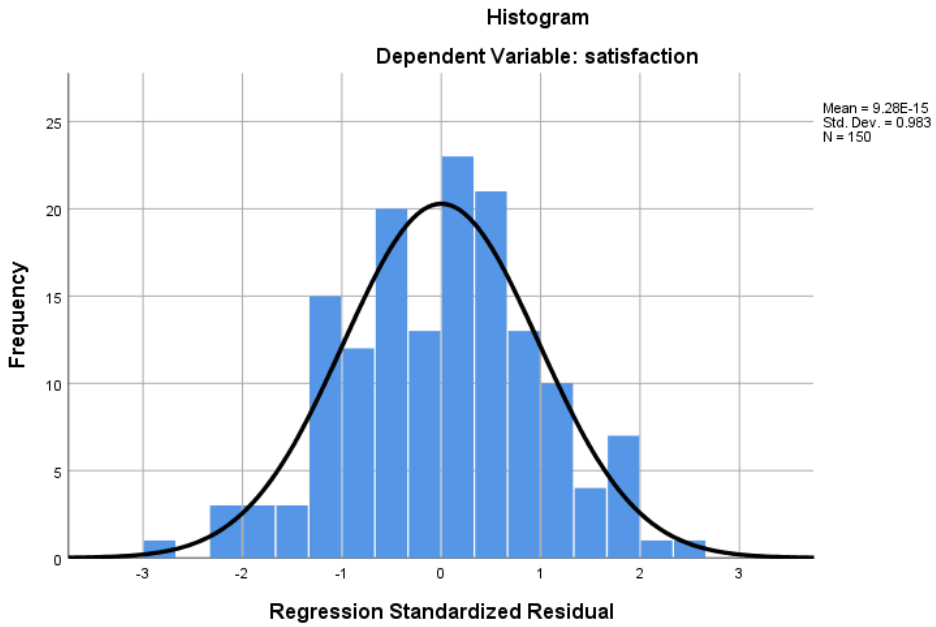
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 50.524 | 5 | 10.105 | 64.000 | .000[b] |
| | Residual | 22.736 | 144 | .158 | | |
| | Total | 73.260 | 149 | | | |

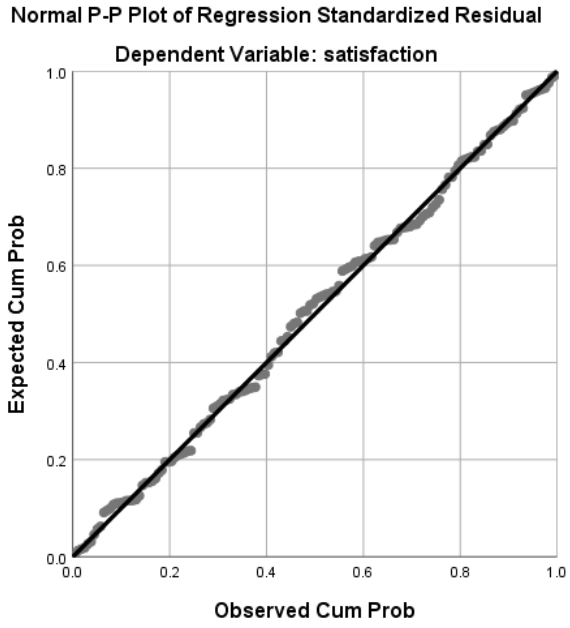
a. Dependent Variable: satisfaction

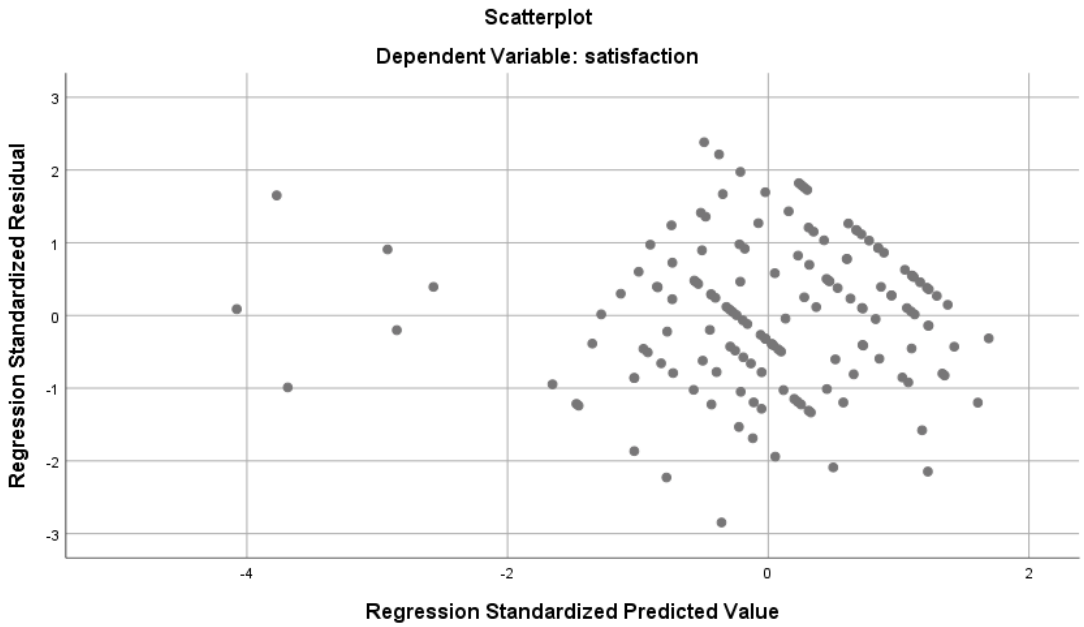
b. Predictors: (Constant), empathy, responsiveness, reliability, tangible, assurance

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | t | Sig. | Tolerance | VIF |
| 1 | (Constant) | .726 | .358 | | 2.026 | .045 | | |
| | tangible | .012 | .083 | .010 | .141 | .888 | .422 | 2.369 |
| | reliability | .096 | .074 | .090 | 1.300 | .196 | .450 | 2.223 |
| | responsiveness | .101 | .076 | .101 | 1.323 | .188 | .371 | 2.693 |
| | assurance | .221 | .063 | .261 | 3.517 | .001 | .391 | 2.556 |
| | empathy | .487 | .069 | .494 | 7.077 | .000 | .443 | 2.260 |


Histogram
Dependent Variable: satisfaction
Mean = 9.28E-15
Std. Dev. = 0.983
N = 150
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: satisfaction
Expected Cum Prob
Observed Cum Prob




## III. Results of Simple Regression Analysis

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .792[a] | .628 | .625 | .53452 | .628 | 249.846 | 1 | 148 | .000 |

a. Predictors: (Constant), satisfaction

b. Dependent Variable: loyalty

**ANOVA[a]**

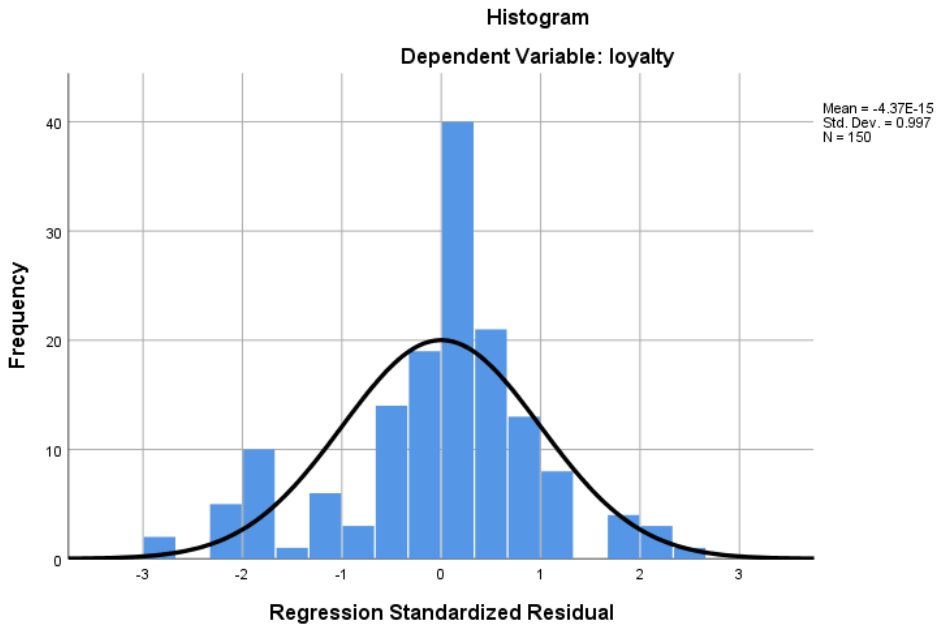
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 71.384 | 1 | 71.384 | 249.846 | .000[b] |
| | Residual | 42.285 | 148 | .286 | | |
| | Total | 113.670 | 149 | | | |

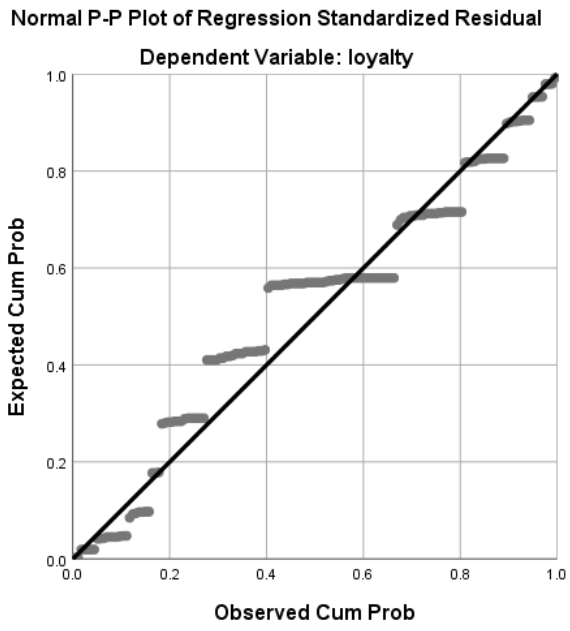
a. Dependent Variable: loyalty

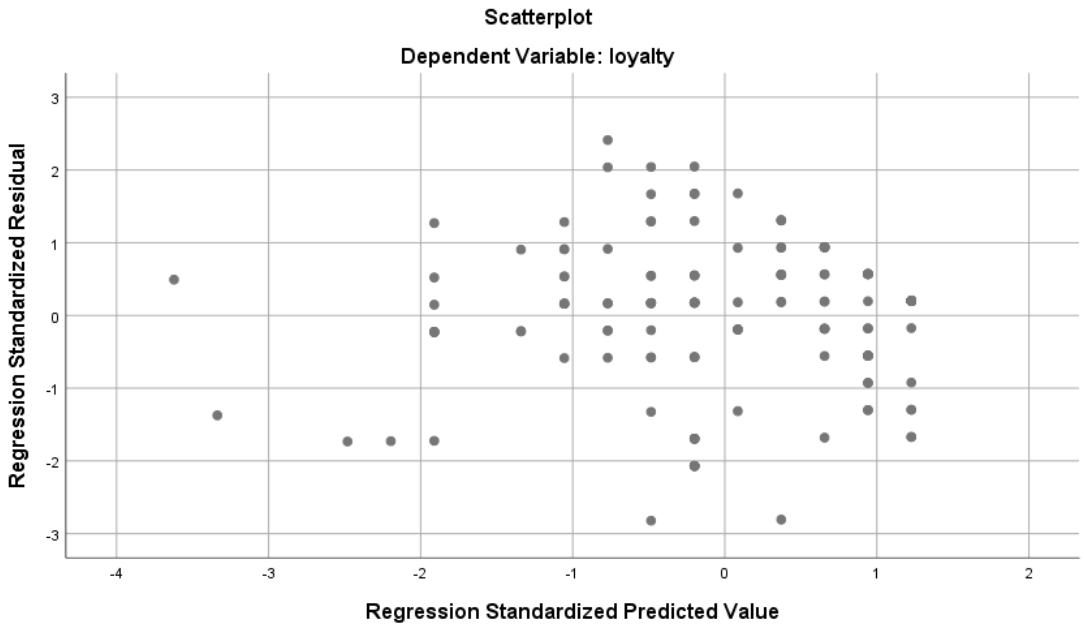
b. Predictors: (Constant), satisfaction

**Coefficients[a]**

| Model | | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | -.017 | .386 | | -.044 | .965 |
| | satisfaction | .987 | .062 | .792 | 15.807 | .000 |




Scatterplot
Dependent Variable: loyalty
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-3
-4
-3
-2
-1
0
1
2

**Appendix (C)**

Table 2.1 Previous study

| Authors | Titles | Independent variables | Mediating variable | Dependent variable | Findings |
|---|---|---|---|---|---|
| Siripipatthanakl (2020) | Service quality, patient satisfaction, and patient loyalty in the private dental care sector: a case study of smile family dental clinic | Tangibility, Reliability, Responsiven-ess, Assurance, Empathy | Patient Satisfaction | Patient Loyalty | The findings indicated that the majority of respondents expressed strong agreement regarding the overall service quality of the clinic. Patients reported high levels of satisfaction with their dental care experience and demonstrated a strong sense of loyalty toward the clinic. Hypothesis testing revealed that patient satisfaction partially mediated the relationship between dental service quality and patient loyalty in the private dental care context. |
| Lu (2023) | The effect of service quality on customer satisfaction of Aung Yadana | Tangibility, Reliability, Responsiven-ess, Assurance, Empathy | | Customer Satisfaction | The findings indicated that tangibility, assurance, and empathy had significant positive effects on customer satisfaction, with assurance and empathy showing stronger |

| | | | | | |
|---|---|---|---|---|---|
| | private hospital | | | | influence than tangibility. Responsiveness and reliability were also positively related but had comparatively weaker effects. |
| Shiferaw (2021) | Assesment of service quality and customer satisfaction: the case of Lulitta special dental clinic plc | Competence, Personalized financial planning, Corporate image, Technology, Tangibility, Assurance | | Overall Satisfaction | The findings revealed that all six service quality factors had a significant positive impact on patient satisfaction. The reliability and validity of the research instrument were reported at 0.894, indicating strong internal consistency. The study also highlighted that corporate image creates variation in customer satisfaction levels. |
| Zaw (2022) | The effect of healthcare service quality on patient satisfaction and loyalty of Moe Kaung Treasure hospital | Physical environment, Customer-friendly environment, Communicat-ion, Privacy and Safety Responsiven-ess, | Patient Satisfaction | Patient Loyalty | The findings indicated that patients had a high perception of service quality across all dimensions. Among them, physical environment and affordability and accessibility were found to have a significant impact on patient satisfaction. Furthermore, patient satisfaction was shown to |

| | | | | | |
|---|---|---|---|---|---|
| | | Affordability and Accessibility | | | have a significant positive effect on patient loyalty. |
| Tun (2019) | The service quality and customer loyalty at Mediland Hospital | Interaction quality, Physical environment quality, Outcome quality | Customer Satisfaction | Customer Loyalty | The findings reveal that among the interaction quality dimensions, staff behavior has the strongest influence. Regarding physical environment quality, ambient conditions and design significantly affect customer satisfaction. Additionally, all dimensions of outcome quality show a strong and significant relationship with customer satisfaction. The results further indicate that customer satisfaction has a significant positive effect on customer loyalty at Mediland Hospital. |
| Hashem and Ali (2019) | The impact of service quality on customer loyalty: A study of dental clinics in Jordan | Tangibility, Reliability, Responsiveness, Assurance, Empathy | | Customer Loyalty | It showed the level of service quality in Jordan's dental clinics was medium. However, the study found that there were significantly positive effects of service quality on customer loyalty. |

| | | | | | |
|---|---|---|---|---|---|
| Suepakdee (2023) | The factor influencing patient's intention for dental services selection in Thailand | Accessibility, Physical facilities, Doctor services quality | | Selection intention | From the study's findings, doctor service quality was proven to be the most influential factor to determine patients' intention to choose their dental clinics in Thailand and neither accessibility nor physical facilities could make significant influence to patient choice on their dental services providers. |
| Fairaq et al., (2024) | Patient satisfaction and loyalty: key drivers of positive word-of-mouth in dental primary care within Jeddah First Health Cluster, Saudi Arabia | Staff attitude, Convenience of accessing dental care, Effectiveness of pain management, Overall quality of treatment | | Patient Satisfaction | The results indicate that meeting expectations and good clinical skill practice were crucial in enhancing patient satisfaction and patient loyalty in public sector dental clinics. |
| Tuffahati and Achmadi (2023) | The influence of service quality and location on patient loyalty at Trisakit Dental Hospital | Service quality Location | Patient Satisfaction | Patient Loyalty | The results showed that both service quality and location delivered positive results which satisfied patients and resulted in their loyalty to the hospital. Patient satisfaction served as a |

| | | | | | |
|---|---|---|---|---|---|
| | mediated by patient satisfaction | | | | mediator between service quality and location in their effect on patient loyalty according to the findings. The study demonstrates that healthcare institutions can achieve higher patient loyalty through their delivery of high-quality services and their establishment of convenient service locations. |
| Htang (2019) | A study of quality of dental care service factors influencing patient satisfaction, trust, and loyalty in Yangon, Myanmar | Quality of dental care service | Patient Satisfaction Trust | Loyalty | The study showed that when dental services increase their quality standards, patients develop higher satisfaction levels and better trust for dental providers and their loyalty to the service. |