

Factors That Influence Patient Loyalty In Private Hospitals In Bangkok, Thailand

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Abstract

Thailand is becoming a leading medical hub in Asia due to its exceptional medical infrastructure, including internationally recognized medical professionals and services, and an increasing number of accredited medical facilities. Thailand currently has 66 JCI-accredited hospitals, the most of any Southeast Asian country, and ranks fourth globally after Saudi Arabia, China, and the UAE. The private healthcare industry in Thailand is highly competitive, with all sectors vying for a loyal clientele base to justify the significant operating costs and initial investments required. Therefore, private hospitals would benefit from understanding the factors that contribute to patient loyalty.

This study examines the factors that influence patient loyalty to private hospitals in Bangkok, Thailand. The first-order variables examined in the study are Doctor's Expertise (DE), Service Quality (SQ), Management System (MS), Physical Aspect (PA), Hospital Loyalty (HL), and Patient Loyalty (PL). Additionally, the study considers two second-order variables: Medical Factor (MD) and Non-Medical Factor (NMED). The study collected 407 samples and used Structural Equation Modeling (SEM) for data analysis. The results indicate that both second-order latent variables significantly impact patient loyalty, with MD (which represents DE and SQ) and NMED (which represents MS and PA) having p-values of < .05. This suggests that hospitals can increase patient loyalty by providing high-quality services and professionally managing both the emotional and physical aspects of their facilities. Overall, this study highlights the importance of understanding patient loyalty in the private healthcare industry in Thailand. By focusing on the factors that contribute to patient loyalty, hospitals can better compete in this highly competitive industry and ensure a loyal client base that will justify the significant investments required to maintain world-class medical facilities and services.

Keyword Patient loyalty, hospital loyalty, private hospital.

Introduction

Introduction

The information presented in this passage is based on the GHS Index 2019 report and a Pacific Prime Thailand report from the same year. According to the GHS Index, South Korea and Thailand were among the top-performing countries in Asia for health security, with Thailand ranking sixth globally with a score of 73.2 out of 100. It was the only developing country and the top-performing country in Asia in the top 10 list worldwide. Thailand was also selected to host the Global Health Security Agenda (GHSA) in 2020 and chair a GHSA control working committee in 2021.

Additionally, Pacific Prime Thailand's report found that Thailand had effective systems in place for tracking and managing healthcare-related infections, including a well-functioning national laboratory testing system and a field epidemiology training program that worked together at both national and sub-national levels. The country also had a strong electronic surveillance system for reporting, which enabled them to rapidly collect and analyze epidemiology and laboratory data in response to outbreaks.

In previous research, various aspects of healthcare in Thailand have been explored, including medical tourism in private hospitals (Pan, 2017), patient loyalty in nursing care for inpatients in private hospitals in the central region (Pandee, Singchungchai, & Aree, 2020), financial risk protection provided by Thailand's universal health coverage (Tangcharoensathien, et al., 2020), and the management of the COVID-19 pandemic by Thailand's healthcare system and strategies (Issac, et al., 2021). However, there is currently limited research, reports, and statistics available on the specific factors that contribute to patient loyalty in private hospitals. Thus, this study aims to investigate the factors that increase patient loyalty in private hospitals located in Bangkok, Thailand. The study will examine factors such as doctor's expertise (DE), management system (MS), hospital loyalty (HL), patient loyalty (PL), physical aspect (PA), service quality (SQ), and their influence on patient loyalty in private hospitals. A research model will be proposed and analyzed to gain a better understanding of the significant effects of each factor.

1.1 Research Objectives

The research objectives for this study are as follows:

Investigate the impact of doctor's expertise on patient loyalty in private hospitals.

Determine the influence of service quality on patient loyalty in private hospitals.

Examine the effect of management system on patient loyalty in private hospitals.

Investigate the relationship between physical aspects of private hospitals and patient loyalty.

Determine the correlation between hospital loyalty and patient loyalty in private hospitals.

1.2 Literature Review

In 1999, the Institute of Medicine (IOM) released a report titled "To Err is Human," which recommended the implementation of safety measures and quality standards in healthcare (LT, JM, & MS, 2000). Currently, there are over 70 national healthcare accreditation agencies worldwide that use or develop standards for healthcare organizations and services (2003). The largest developer and publisher of international standards is the International Standards Organization (ISO), established in 1978 by Germany after World War II. The ISO is a network of national standards institutes from 162 countries, and its standards are applicable in international health jurisdictions (2011). Healthcare standards are universal and are crucial in improving organizational performance and clinical practice (Greenfield, Pawsey, Hinchcliff, Moldovan, & Braithwaite, 2012).

Trust between doctors and patients is a crucial component in the treatment relationship, and it is based on factors such as medical service quality, communication, and patient satisfaction (Eveleigh, et al., 2012). Lack of trust or insufficient trust can result in lower treatment compliance (Lu, Zhang, Wu, Shang, & Liu, 2017), negative medical experiences (Dong, et al., 2014), and even treatment failure (Lee & Lin, 2009). The patient's understanding of the GP's qualities and the patient's psychological vulnerability and concerns influence the quality of treatment and patient care over time, ultimately leading to the development of patient loyalty (Pandhi & Saultz, 2006).

According to a study conducted by Torres, Vasquez-Parraga, & Barra (2009), patients who have a strong commitment to their doctors tend to exhibit higher levels of loyalty. This loyalty is determined by factors such as patient trust and satisfaction, and the reputation of the doctor has a positive influence on both trust and satisfaction. Similarly, Gérard, François, Chefdebien, Saint-Lary, & Jami (2016) found that a general physician's inability to fulfill all of a patient's requirements does not necessarily lead to a loss of patient loyalty. The traditional concept of the "family doctor" has historically been associated with loyalty that extends across multiple generations within a family.

In another study by Akbolat, Sezer, Ünal, & Amarat (2021), which utilized various statistical methods such as confirmatory factor analysis, exploratory factor analysis, reliability analysis, descriptive statistics, and structural equation modeling (SEM) with data from 1,100 patients, it was discovered that patient satisfaction is positively influenced by their experience during

visits. Patient satisfaction, in turn, plays a mediating role in the relationship between patient visit experience and word-of-mouth (WOM) recommendations.

Setyawan, Supriyanto, Ernawaty, & Lestari (2020) conducted research using a cross-sectional design and analyzed 1,470 self-administered questionnaires. The study found a significant correlation between patient satisfaction and loyalty in both private and public healthcare centers. It concluded that the quality of healthcare services has an impact on patients' satisfaction and loyalty. The study also highlighted that satisfied patients are more likely to return to the same healthcare center or hospital, which is a crucial factor in patient retention. Similarly, Wu (2011) demonstrated that perceived service quality increases patients' intention to revisit through the enhancement of patient satisfaction.

The fundamental requirements for a healthcare data management system are security and privacy, especially given the rising number of hacking attacks and data breaches, which have led to increased patient involvement in providing health data to healthcare systems (Ismail et al., 2020). With individuals having higher expectations of healthcare services and admitted patients demanding higher quality services due to increased awareness, hospitals need to improve their practices for effective management of healthcare services (Akdere et al., 2018). The growing competition in the healthcare industry and changes in patient behavior have prompted hospital managers to focus on factors that can impact patient loyalty (Ricca & Antonio, 2021).

The early phases of the design and planning process (PDP) are critical, as it is during this time that important decisions are made (Elf et al., 2015; Jensen, 2011). In these phases, new innovative care models are incorporated from various perspectives, including spatial issues and building design development (Hoof & Verkerk, 2013). The primary objective of this phase is to align with the healthcare organization's strategic plan and to define the healthcare environment from the patient's perspective (Barrett & Baldery, 2003). As the initial phase significantly impacts the final outcomes and the building project, it also affects the hospital's ability to control future healthcare outcomes (Rybkowski, 2009; Pemsel et al., 2010).

In contrast to the aforementioned studies, a study conducted in private hospitals in Malaysia (Salmi, Lim, & Chin, 2019) found no significant relationship between patient revisit and trust. Similarly, a survey conducted in hospitals in Taiwan on patient satisfaction and patient loyalty concluded that patient loyalty is only minimally influenced by patient satisfaction (H-Y, C-C, S-I, & F-Y, 2011). Another existing research by Liu, Li, Liu, & Hongwei (2021) suggests that high patient satisfaction alone does not guarantee patient loyalty to a hospital. While it is a necessary condition, it is not sufficient for establishing patient loyalty.

The concept of loyalty has been defined as a strong commitment to consistently repurchase or patronize a preferred product or service in the future, despite potential situational influences and marketing efforts that may prompt switching behavior (RL, 1999). Patient loyalty refers to the extent to which patients maintain a positive attitude towards hospital services, are not swayed by marketing activities or external factors, and are willing to continue consuming or

visiting in the future (Liu, Li, Liu, & Hongwei, 2021). The article by Liu, Li, Liu, & Hongwei (2021) further explains that patient loyalty draws from the notion of customer loyalty in the business sector, where customer loyalty is a central focus of marketing strategies (Toufaily, Ricard, & Perrien, 2013). Patient loyalty is considered a key factor for the success of healthcare providers (Zhou, Wan, Liu, Feng, & Shang, 2017).

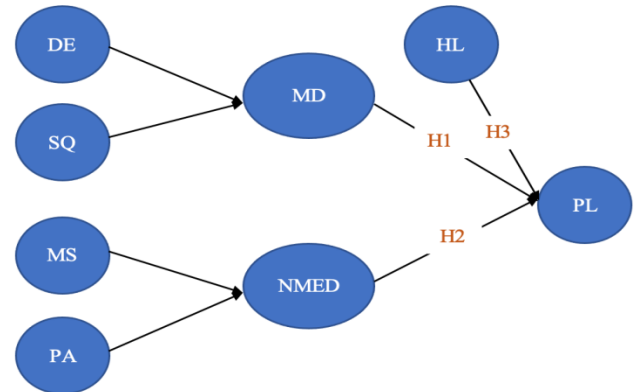
However, it should be noted that the medical services industry differs from other industries, as patients may not subjectively desire to revisit a hospital. Therefore, customer loyalty in the medical industry exhibits distinct characteristics compared to other industries (Liu, Li, Liu, & Hongwei, 2021).

In the last 25 years, healthcare providers have faced significant changes and reforms in many countries, including Germany, Australia, UK, and France, putting pressure on them to adapt and survive (Zhou, Wan, Liu, Feng, & Shang, 2017). In a competitive environment, healthcare providers must focus on encouraging patient return, ensuring satisfaction, and providing high-quality services and technical skills to achieve success (Rundle-Thiele & Russell-Bennett, 2010). Patient experiences within healthcare facilities and the healthcare system form impressions that influence the patient's opinion of the hospital, making patient experience "the voice of experience shaping the thoughts and opinions of others who may never have been a patient" and potentially leading to loyal or dissatisfied patients (Johnson, 2014). Furthermore, patients who are willing to recommend the hospital to their friends and family are more likely to return (Isa, Lim, & Chin, 2019). Hospitals must prioritize patient loyalty in their marketing strategies, as loyal patients can provide positive word-of-mouth advertising and repeat business (MacStravic R. S., 1987). Building a good hospital reputation is necessary to

stay competitive in the healthcare industry and improve patient loyalty (Turay, et al., 2017).

Based on previous researchers and related literature, the following conceptual framework was developed to study the factors that affects the consumers' purchasing behavior via the online networks.

Figure I. Hypothesized Conceptual Model



First-order variables: Doctor's Expertise (DE), Service Quality (SQ), Management System (MS), Physical Aspect (PA), Hospital Loyalty (HL), Patient Loyalty (CL)

Second-order variables: Medical Factor (MD): Doctor's Expertise (DE), Service Quality (SQ); Non-Medical Factor (NMED): Management System (MS), Physical Aspect (PA)

1.3 List Of Hypotheses

Table 1.1. List of Hypotheses

<u>Medical Factor (MD)</u>
<p><u>Medical Factor (MD)</u> H1₀: The Medical Factor (MD) that represents Doctor's Expertise (DE) and Service Quality (SQ) does not affect the loyalty of the patient in private hospitals H1_a: The Medical Factor (MD) that represents Doctor's Expertise (DE) and Service Quality (SQ) significantly affects the loyalty of the patient in private hospitals</p>
<u>Non-Medical Factor (NMED)</u>
<p><u>Non-Medical Factor (NMED)</u> H2₀: The Non-Medical Factor (NMED) that represents Management System (MS) and Physical Aspect (PA) does not affect the loyalty of the patient in private hospitals H2_a: The Non-Medical Factor (NMED) that represents Management System (MS) and Physical Aspect (PA) significantly affects the loyalty of the patient in private hospitals</p>
<p>H3₀: Hospital loyalty does not affect patient loyalty in private hospitals H3_a: Hospital loyalty significantly affects patient loyalty in private hospitals</p>

2. Method of Research

To collect and analyze data for this research on "Factors That Influence Patient Loyalty In Private Hospitals in Bangkok, Thailand," a quantitative research technique, along with casual modeling or Structural Equation Modeling (SEM), was employed. The questionnaire used as the research instrument was developed based on relevant assumptions and approved by experts in the field. The research samples were collected from the population using the chosen methodology.

As per Kline (2001), in SEM, latent variables often correspond to hypothetical constructs or factors that are not directly observable but explain a sequence. In this study, factors such as doctor's expertise, service quality, physical aspect, management system, patient loyalty, and hospital loyalty

cannot be directly measured and are all observable, making them latent variables. To analyze and interpret the collected data, Structural Equation Modeling (SEM) was used as a statistical technique. This approach was chosen to ensure that the hypotheses were appropriately covered and to improve the validity and reliability of the data. The quantitative approach was applied to carry out the data analysis.

The questionnaire used for data collection was designed based on relevant assumptions and previous research findings and had an acceptable reliability value of equal to or more than 0.7 for the pre-test sample of 30 respondents, as shown in Table 2.1. The values for the actual sample size of 407 respondents were also considered consistent and reliable, with all values above 0.65, as suggested by Craig and Moores (2006).

Table 2.1. The Cronbach's Alpha coefficient reliability value for each factor

Statements for each part	Coefficient Alpha (N=30)	Alpha coefficient (N=407)	Accepted/Not Accepted
Doctor's Expertise	0.712	0.798	Accepted
Service Quality	0.893	0.822	Accepted
Management System	0.882	0.814	Accepted
Physical Aspect	0.832	0.655	Accepted
Patient Loyalty	0.737	0.716	Accepted
Hospital Loyalty	0.913	0.798	Accepted
Total value	0.939	0.855	Accepted

2.1 Statistical Method For Data Analysis

2.1.1 Structural Equation Modeling (SEM)

The Structural Equation Model (SEM) was used to examine the relationship between the independent variables and the dependent variable. SEM is a widely used multivariate analysis technique in research that allows for the examination of complex relationships among variables (González, Boeck, & Tuerlinckx, 2008). It provides a flexible framework for analyzing phenomena such as health behaviors and diseases by breaking down intricate relationships among variables and even positing and examining causal relationships with non-experimental data (Beran & Violato, 2010). SEM includes regression analysis (path analysis), which represents the hypothesized causal relationships among variables to be tested, and factor analysis, where the factors or latent variables (unobserved variables) are calculated from measured variables (Beran & Violato, 2010).

SEM can be used with observational, nonexperimental, and experimental studies, and multiple symptoms of a disease can be measured and used in a factor model that represents these symptoms, where the relationship between behavioral and/or environmental characteristics and factor(s) are judged through path analysis, and the influence of different types of medicines on the factor(s) is then analyzed across the measured

environmental and behavioral conditions (Beran & Violato, 2010).

As described in detail by Beran and Violato (2010), the analyses mentioned above involve the design of both a path (structural) model and a measurement model. The structural model examines the relationships among latent variables and allows the researcher to determine their correlation level, represented as path coefficients. Path coefficients measure the importance of a specific path of influence from cause to effect, taking into account all other variances. Unlike sequential multiple regression models, coefficients in structural equation modeling (SEM) are computed simultaneously for all endogenous variables (Beran & Violato, 2010; Wright, 1920).

SEM can be applied to various types of analyses, ranging from simple relationships between variables to complex analyses of measurement equivalence for first and high-order constructs (Cheung, 2007).

For this particular study, a sample of 30 users was selected as a pretest sample to assess reliability. The determination of an appropriate sample size relied on obtaining acceptable values for each factor, which were required to be above 0.7. It is crucial to consider the appropriate sample size based on the methodology employed when using SEM to analyze data.

Smaller samples in SEM can lead to more convergence failures due to lower accuracy in parameter estimates by the software, resulting in improper solutions such as negative error variance estimates for measured variables or failure to reach a satisfactory solution. Furthermore, standard errors are calculated assuming larger sample sizes (Loehlin, 1992). However, researchers Bentler and Chou (1987) and Stevens (2009) suggest a general rule of having a minimum of 15 cases per predictor, variance estimate, or residual term. The general recommendation is to aim for a sample size of at least 200 or 5-10 cases per parameter (Kline, 2001). Moreover, Jackson (2003), suggested concerning the relation between the sample size and the model complexity, as the N:q rule and is applied when maximum likelihood (ML) is used as the estimation method. Based on the above suggestions of the previous researchers, the size of the sample was calculated as follows:

There are 23 measured variables for latent variables in this research:

$$23 \text{ (measured variables)} \times 15 \text{ (respondents per measure variables)} = 345 \text{ respondents}$$

15 additional individuals per hypothesis were used as trial and error or to make up for missing data:

$$3 \text{ (hypothesis)} \times 15 \text{ (respondents per hypothesis)} = 45 \text{ which resulted in a total of 390 respondents. The researcher, therefore, used 407 respondents as its sample size.}$$

Therefore, for the purpose of this research, the factors that influences patient loyalty in private hospitals, SEM methodology will be used as a statistical tool. These factors include first-order variables which are Doctor's Expertise (DE), Service Quality (SQ), Management System (MS), Physical Aspect (PA), Hospital Loyalty (HL) and Patient Loyalty (PL), and second-order variables, such as, Medical Factor (MD), and Non-Medical Factor (NMED).

3. Research Findings

Jöreskog & Sörbom (1988) created the Goodness-of Fit statistic (GFI) as an alternative to chi-square test, and calculates the amount of variance that is measured for by the estimated population covariance. Measures such as GFI and AGFI are affected by sample size (Sharma, Mukherjee, Kumar, & Dillon, 2005), while the cutoff for both is > 0.90. Another progressive fit index is the Tucker-Lewis index (TLI), also known as non-normed fit index or NNFI and is calculated as follows:

$$\frac{x^2/df \text{ (Null Model)} - x^2/df \text{ (Proposed Model)}}{x^2/df \text{ (Null Model)} - 1}$$

As long as the value of TLI is not below 1 or > 9, it implies a better fitting model. The cutoff value which is widely accepted as a good model fit is ≥ 0.95 (Schumacker & Lomax, 2004). However, there are some authors who have used the TLI value to be as low as 0.80, and if the value is close to 1, it indicates a good fit (Shadfar & Malekmohammadi, 2013). The TLI for this study is 0.927 and is therefore, considered a good fit. Both the TLI and the CFI (Comparative Fit Index) that follows depends on the average size of the correlations in the data; if the average correlation between variable is not high, then the TLI will not be very high (Kenny, 2020). CFI is measured based directly on the non-centrality measure and the formular is:

$$\frac{d \text{ (Null Model)} - d \text{ (Proposed Model)}}{d \text{ (Null Model)}}$$

The value of CFI should be ≥ 0.90 for the model to be accepted and the value of the study for CFI is 0.927 and is therefore, a good fitting model. Another measure of fit that is based on the non-centrality parameter is Root Mean Square Error of Approximation (RMSEA) and is computed as follows:

$$\frac{\sqrt{(x^2 - df)}}{\sqrt{[df(N - 1)]}}$$

Where N is the sample size and df is the degrees of freedom of the model. According to Kenny (2020), RMSEA is the most popular measure of model fit currently and some associate the measure as the "Ramsey", and is reported in literally all papers that use SEM or CFA. Schumacker & Lomax (2004) agreed as well as researchers Hu & Bentler (1999) who suggested the cutoff value for RMSEA to be ≤ 0.06 for a good model fit. As further explained by Shadfar & Malekmohammadi (2013), RMSEA is often calculated with its confidence intervals and in a well-fitting model, the lower (90%) confidence limit includes 0 or close to 0, and the upper (90%) confidence limit is less than 0.08. For this research, the value of RMSEA is 0.052 with LO 90 0.045 and HI90 0.059, and is therefore, considered a good fit.

The measurement of fit indexes which resulted in a good model fit for this research is summarized below:

Table 3.1. Summary of Measurement Findings of Model Fit Analysis

Fit Indices				
Fit Measures	GFI	TLI	CFI	RMSEA
Scale of good Model fit	>0.90	>0.95 or close to 1	≥ 0.90	≤ 0.06
Derived Default Model Values	0.929	0.927	0.927	0.052
Interpretation	Good Fit	Adequate Fit	Good Fit	Good Fit

The findings indicate that the SEM model exhibited a good fit, as demonstrated by the RMR value of 0.036, GFI value of 0.929 (greater than 0.9), TLI value of 0.927 (greater than 0.9), CFI value of 0.947 (greater than 0.9), and RMSEA value of 0.052 (less than 0.6). Therefore, it can be concluded that the model is a good fit for this research.

The Systematic Results For Hypothesis Testing

This section of the research findings illustrates the impacts of the first and second-order variables, including the medical factor (MD) consisting of doctor's expertise and service quality, and the non-medical factor (NMED) comprising of management system and physical aspect, and hospital loyalty on the dependent variable, which is patient loyalty. The findings are presented in Table 3.2:

Table 3.2: Regression Weights (Group number 1- Default model)

	Estimate	S.E.	C.R.	P	Label
PL <--- MD	.035	.017	2.112	.035	
PL <--- NMED	.106	.038	2.821	.005	
PL <--- HL	.035	.024	1.477	.140	

Previous researches have been analyzed on medical tourism in private hospitals in Thailand (Pan, 2017) or various aspects of Thailand's healthcare system, such as nursing care in inpatients in private hospitals in the central region (Pandee, Singchungchai, & Aree, 2020), financial risk protection of Thailand's universal health coverage (Tangcharoensathien, et al., 2020), and management of the COVID-19 pandemic by Thailand's healthcare system and strategies (Issac, et al., 2021), limited research, reports, and statistics are available on the factors that increase patient loyalty in private hospitals. As explained by Byrne (2006), regression weights show the effects of one or more variables on another variable. The parameter estimate is significant at $p \leq 0.05$, and as seen from the table above, both the second-order latent variables, the Medical Factor (MD) that represents Doctor's Expertise and Service Quality (SQ), and the Non-Medical Factor (NMED), which represents the Management System (MS) and Physical Aspect (PA), seem to have significant effects on patient loyalty in private hospitals. However, Hospital Loyalty (HL) does not appear to have a significant effect on patient loyalty since its p-value is 0.05.

Summary of Questionnaire

The research findings indicate that the majority of respondents were females who were single and between the ages of 26-37, with at least a bachelor's degree and were employees. They had a monthly income of between 12,001-25,000 baht. The primary reason for choosing a private hospital for the majority of the 407 respondents was the doctor. They usually visit a hospital for a check-up about 1-2 times a year only and are willing to choose a different hospital if their preferred doctor changes hospitals or retires, or if more experienced doctors become available elsewhere. The respondents strongly agreed that they prefer doctors who are reputable and that the hospital gives priority to hygiene, cost transparency, and continuous improvement in terms of utilities, technology, and machinery.

The nurses at the hospital also make the patients feel cared for like family.

Figure II: Path Diagram of SEM Model with parameter estimates (regression weights)

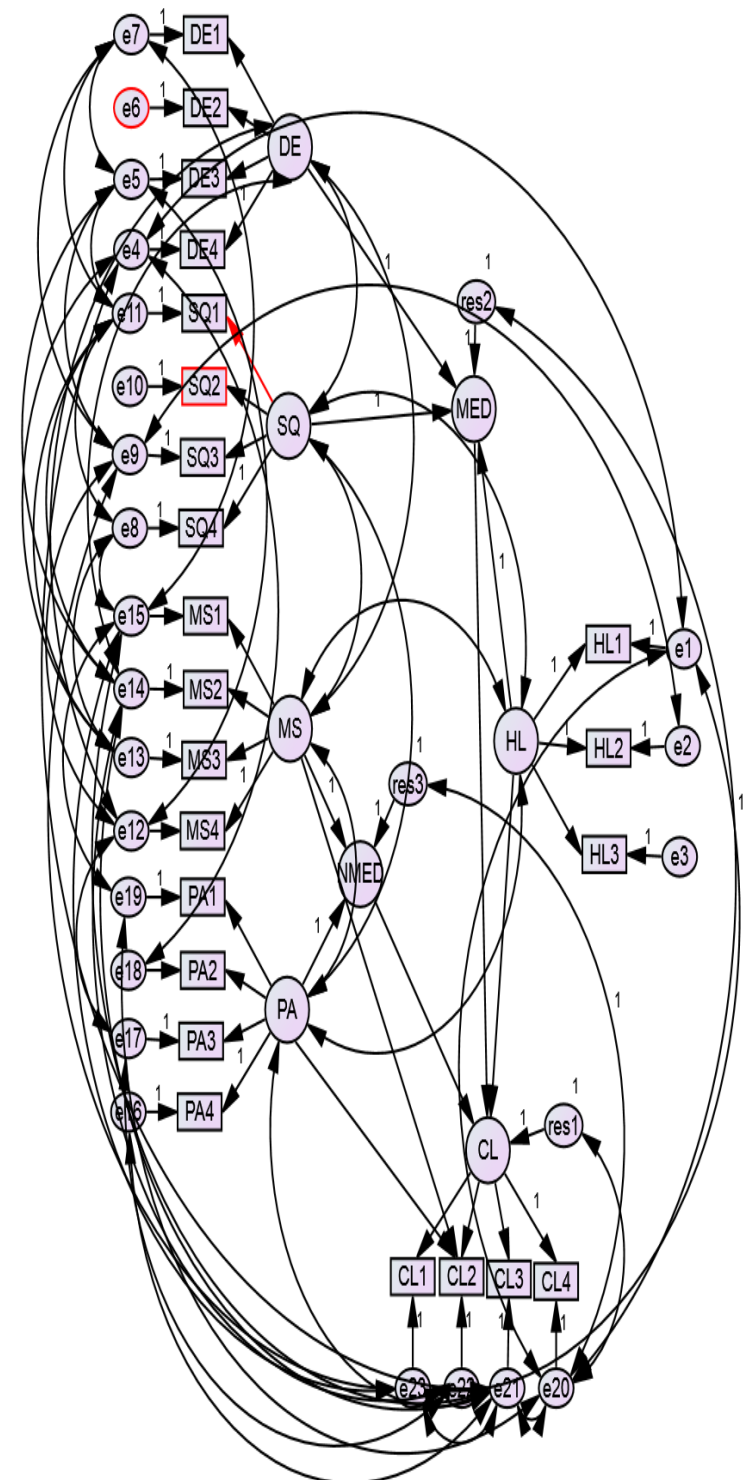


Table 3.3: Hypotheses Testing for SEM Model

Hypotheses	Structural Path	SEM Output Model				Result
		Estimate	S.E.	C.R.	P	
H1 ₀ : The Medical Factor (MD) that represents Doctor's Expertise (DE) and Service Quality (SQ) does not affect the loyalty of the patient in private hospitals H1 _a : The Medical Factor (MD) that represents Doctor's Expertise (DE) and Service Quality (SQ) significantly affects the loyalty of the patient in private hospitals	MD → PL	.035	.017	2.112	.035	Significant
H2 ₀ : The Non-Medical Factor (NMED) that represents Management System (MS) and Physical Aspect (PA) does not affect the loyalty of the patient in private hospitals H2 _a : The Non-Medical Factor (NMED) that represents Management System (MS) and Physical Aspect (PA) significantly affects the loyalty of the patient in private hospitals	NMED → PL	.106	.038	2.821	.005	Significant
H3 ₀ : There is no correlation between patient loyalty and hospital loyalty in private hospitals H3 _a : There is a significant correlation between patient loyalty and hospital loyalty in private hospitals	HL → PL	.035	.024	1.477	.140	Insignificant

4. CONCLUSION

Hypothesis 1 (MD → PL):

H1₀: The Medical Factor (MD) that represents Doctor's Expertise (DE) and Service Quality (SQ) does not affect the loyalty of the patient in private hospitals

H1_a: The Medical Factor (MD) that represents Doctor's Expertise (DE) and Service Quality (SQ) significantly affects the loyalty of the patient in private hospitals

The statistical significance p-value for the proposed hypothesis is 0.035 which is below the cut-off value to have a significant effect, and therefore, we reject the null hypothesis H1₀ that the Medical Factor (MD) that represents Doctor's Expertise (DE) and Service Quality (SQ) does not affect the loyalty of the patient in private hospitals, and accept the alternate hypothesis that the medical factor that represents Doctor's Expertise (DE) and Service Quality (SQ) significantly affects the loyalty of the patient in private hospitals

Hypothesis 2 (NMED → PL):

H2₀: The Non-Medical Factor (NMED) that represents Management System (MS) and Physical Aspect (PA) does not affect the loyalty of the patient in private hospitals

H2_a: The Non-Medical Factor (NMED) that represents Management System (MS) and Physical Aspect (PA) significantly affects the loyalty of the patient in private hospitals

The statistical significance p-value for the proposed hypothesis is 0.005 which is below the cut-off value to have a significant effect, and therefore, we reject the null hypothesis H2₀ that the Non-Medical Factor (NMED) that represents Management System (MS) and Physical Aspect (PA) does not affect the loyalty of the patient in private hospitals, and accept the alternate hypothesis that Non-Medical Factor (NMED) that represents Management System (MS) and Physical Aspect (PA) significantly affects the loyalty of the patient in private hospitals.

Hypothesis 3 (HL → PL):

H3₀: Hospital loyalty does not affect patient loyalty in private hospitals

H3_a: Hospital loyalty significantly affects patient loyalty in private hospitals

The statistical significance p-value for the proposed hypothesis is 0.140 which is above the cut-off value to have a significant effect, and therefore, we cannot reject the null hypothesis H3₀ that hospital loyalty does not affect patient loyalty in private hospitals.

Benefits

The findings of this research can benefit health service organizations to cope with the constantly changing technology and meet the growing demands of patients. Additionally, other private hospitals facing similar challenges can use this study to understand the effects of various factors on patient loyalty. As there is limited research available on patient loyalty in private hospitals in Bangkok, Thailand, this study adds to the existing knowledge on the topic. The insights gained from this research will help medical health industries in Thailand to develop effective strategies to attract and retain patients.

This research will also provide information in general to other individuals and academics considering to expand research on similar topics as well as assist other researchers to perhaps gain a different perspective to explore the numerous factors or help the researcher to better understand the factors that influence or impact the loyalty of the patients in private hospitals in Bangkok, Thailand.

Limitations

Due to the pandemic, a thorough research may have been restricted where the respondents may not have been able to fully understand certain words due to the language barrier since the entire questionnaire was in English.

Recommendations

The study highlights that providing quality services from experienced and well-known medical staff and professionally managing well-designed hospitals that are both emotionally and physically appealing can motivate patients to switch to another hospital even if they have been loyal to certain hospitals before. The main significance of this study is to understand how different independent factors affect patient loyalty in private hospitals, contributing to limited research data and statistics available on patient loyalty in Bangkok, Thailand. This research will help the medical health industries in Thailand improve or implement necessary strategies to retain patients.

This research will also help the health service organizations in dealing with constant technological changes and enable them to adapt as best as possible to accommodate the ever increasing wants and needs of the patients. It will further help other private hospitals dealing with similar issues by informing them of the impact of the various factors and how the variables ultimately impact the loyalty in patients.

This research will also provide information in general to other individuals and academics considering to expand research on similar topics as well as assist other researchers to perhaps gain a different perspective to explore the numerous factors or help researcher to better understand the factors that influence

or impact the loyalty of the patients in private hospitals in Bangkok, Thailand.

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