

Determining The Effect of Service Quality Towards Patients' Satisfaction in Private Hospitals in Kota Kinabalu, Sabah Malaysia

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ABSTRACT

Intense competition in health care industry has resulted in increasing pressure among private hospitals to provide high quality services. In Sabah, the number of private hospitals is on the rise particularly when the state government has announced its strategic plan to become a medical tourism hub by offering medical treatments to the neighbouring countries. So far, there is not much studies can be found to measure the service quality in private hospitals in Sabah. Hence, the aim of this study is to determine the relationship between service quality and patients' satisfaction among outpatients in the private hospitals in Kota Kinabalu, Sabah Malaysia. A cross-sectional study was carried out between March and April 2018 in Kota Kinabalu, Sabah Malaysia. The study sample was composed of 150 outpatients randomly selected from 5 private hospitals in Kota Kinabalu, Sabah, Malaysia. Data collected from this study were analysed using IBM SPSS Statistics 23.0 and Smart PLS-SEM 3.0. The findings show assurance and tangibility are positively correlated to patients' satisfaction. Of the two important dimensions, tangibility demonstrated greater effect towards patients' satisfaction. This study contributes to the service quality literature by testing the effect of the SERVQUAL dimensions to the patients' satisfaction in the context of private hospitals. In addition, this paper is significant to practitioners specifically hospital managers in improving their serve delivery.

Keywords: *Service Quality, Patients' Satisfaction, Private Hospitals, Sabah, Malaysia*

INTRODUCTION

The number of outpatients in Government hospitals in Kota Kinabalu from 2005 to 2009 has an increase of at least 5.2%, while in 2009 to 2010 alone, the numbers of patients treated in Government clinics in Kota Kinabalu are reported to have an increase of 5% (Department of Statistics, 2010). Due to the rising number of local outpatients in Kota Kinabalu, the number of private hospitals in Kota Kinabalu can be seen increasing too. To date, in Kota Kinabalu, there are five private hospitals offering treatments to inpatients and outpatients. In addition to the local patients, the number of international patients patronizing private hospitals in Kota Kinabalu from neighbouring countries such as Brunei and Indonesia are also growing (Miwil, 2017). Therefore, to remain competitive, these hospitals need to revisit the delivery of their service quality to ensure that they achieve customer satisfactions.

In the literature, many studies have long discussed the importance of service quality and customer satisfactions in ensuring customer loyalty and profitability (Cronin, Brady and Hult. 2000; Caruana, 2002). Recent studies have also discussed the importance of service quality and customer satisfactions in hospital industry. According to Taqdees, Shahab and Asma (2018), private hospitals need to ensure that they deliver a good service quality to achieve customer satisfaction and loyalty among patients. This is supported by Um and Lau (2018) whom have found that dissatisfied patients tend to engage in behaviours such as spreading negative word-of-mouth, switching to other healthcare providers and lodging complaints. In addition, Giovanis, Pierrakos, Rizomyliotis and Binioris (2018) have highlighted that medical care, administrative service, staff performance, facilities condition and nursing care contribute greatly to service quality perception and satisfaction. While these studies have been greatly discussed on the importance of service quality delivery in hospital industry, so far, limited studies are found to measure the service quality and satisfactions among outpatients in private hospitals in Kota Kinabalu, Sabah Malaysia. To ensure that the medical hub tourism as planned by the state government to become a reality, these private hospitals need to provide good services to their patients. Thus, this paper aims to examine the service quality in private hospitals in Kota Kinabalu, Sabah Malaysia. This study will not only contribute to the service quality literature particularly in healthcare industry but also can provide some insights to the management of the private hospitals in delivering their services.

LITERATURE REVIEW

Customer/ Patient Satisfaction

One of the key success indicators of a hospital is how satisfy their patients its services (Pakdil & Harwood, 2005; Pollack, 2008). Enhancing customer service delivery value to achieve customer satisfaction required the service providers to meet customer preferences and expectations (Oakland, 2000; Owusu-Frimpong, Nwankwo, & Dason, 2010). Judgment made by the patient on how their expectation is achieved or not is being referred to how well they are treated (Palmer, Donabedian, & Pover, 1991). Hospital success factors such as the infrastructure, atmosphere, technical, interaction and functional are being assessed to determine patients' satisfaction (Zineldine, 2006). The continuous of good service delivery generates patients' satisfaction (Thomas, 1994), and subsequently, creating trust among patients (Moliner, 2009; Alrubaiee & Alkaa'ida, 2011). Measuring service quality of private hospitals are important because these hospitals are not subsidized and rely heavily on income from patients (Andaleeb, 2000). Therefore, fulfilling the needs of their patients by providing quality services is the ultimate concern of any private hospitals. In addition, by doing so, the private hospitals can sustain their existence in the market. This is because satisfied patients tend to become loyal and will serve as sources of referrals and recommendations by their social networks (Andaleeb, 2000). Past studies on customer satisfaction in health care context are extensive (e.g. Che Rose, Uli, Abdul and Looi Ng, 2004); Amin and Zahora (2013); Fatima, Malik and Shabbir (2018). Most of the studies concerning patient's satisfaction are using the SERVQUAL scale (Parasuraman, Zeithaml and Berry, 1985). While many marketing academicians debated the ability of the SERVQUAL scale to measure satisfaction, but recent studies in health care industry particularly in private hospitals still adopt the scale to measure patient's satisfaction (Al-Neyada, Abdallah and Malik, 2018); Teshnizi, Aghamolaei, Kahnouji, Teshnizi, and Ghani (2018); Ali, Basu, and Ware (2018). Thus, based on these recent studies, SERVQUAL is reported still valid and reliable to measure quality of services in health care industry. This paper, therefore, seeks to measures patient's satisfaction using the framework as proposed by Parasuraman et al., (1985).

Service Quality

There are five dimensions commonly discussed to measure service quality i.e. empathy, assurance, responsibility, reliability and tangibility. Firstly, empathy means when the service providers understand their customers. Secondly, assurance is when the employees possess knowledge, courtesy and able to inspire trust and confidence. Thirdly, responsibility is when the service providers are willing to help their customers and provide quick support services. Fourth is reliability which means the ability of the service providers to perform their promises accurately and finally is tangibility which refers to physical facilities or tools and includes the appearance of the employees.

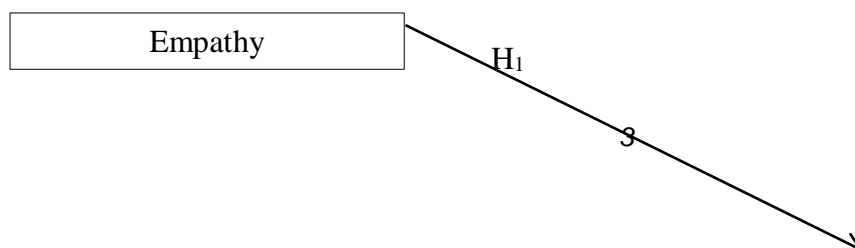
In a study by Al-Neyadi et al., (2018), assurance is found to be the most important factor in determining the satisfaction level of patients visiting both public and private hospitals in United Arab Emirates. Meanwhile, in another study conducted in India, researchers have found that tangibility is the best indicator to determine patient's satisfaction in private hospitals (Ali et al., 2018). Different findings were also reported in another study performed in India. Meesala and Paul (2018) investigated patients' satisfaction in 40 private hospitals in Hyderabad, India and the findings showed that reliability and responsiveness are the only variables that are significant towards patients' satisfaction. Based on the above studies, the mixed findings made the study pertaining to service quality in health care industry as inconclusive. Therefore, further research is necessary to validate the findings especially in Malaysian's context.

Studies on service quality and patients' satisfaction in Malaysia are not many. In a study conducted by Azman, Ilyani, Rabaah and Norazryana (2017), the researchers found that reliability, responsibility and assurance have positive correlations with patients' satisfactions in army medical organizations in Malaysia. Meanwhile, in public hospitals in Malaysia, it was reported that all the five dimensions are critical in determining the patients' satisfaction (Sohail, 2013). In private health care context, according to Nor Khasimah Aliman and Wan Normila Mohamad (2013), all service factors are positively linked to patients' satisfaction. According to the researchers, the most important dimensions in private health care industry are assurance, tangibility and reliability. In Malaysian's context, previous studies were conducted to examine the service quality and patients' satisfaction in public hospitals, army medical organizations and private hospitals in Malaysia, but, so far, none has been done to investigate the service quality provided by private healthcare specifically in Kota Kinabalu, Sabah Malaysia. To ensure that the private hospitals in Kota Kinabalu, Sabah remain competitive, this study is timely and noteworthy to be investigated. Hence, based on the above studies and findings, therefore, the hypotheses for this study are as follows:

- H₁ : There is a positive relationship between of empathy and patient satisfaction.
- H₂ : There is a positive relationship between of assurance and patient satisfaction.
- H₃ : There is a positive relationship between responsibility and patient satisfaction.
- H₄ : There is positive relationship between reliability and patient satisfaction.
- H₅ : There is positive relationship between tangibility and patient satisfaction.

INDEPENDENT VARIABLES

DEPENDENT VARIABLE



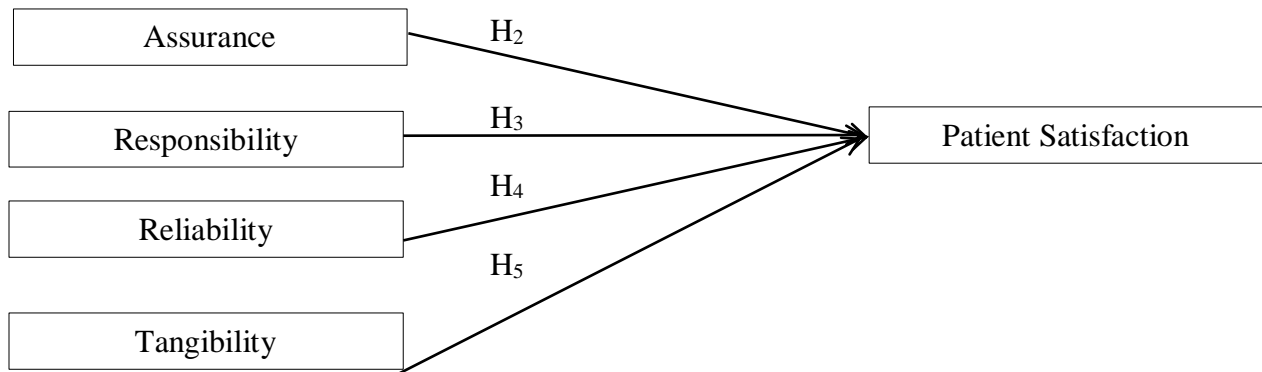


Figure 1: Research Framework

RESEARCH METHODOLOGY

Population and Sample Size

This paper focuses on patients' in private hospitals in Kota Kinabalu as the sample of study. Data were collected in five private hospitals in Kota Kinabalu. Questionnaires were prepared and used in this study to gather data on the background of respondents, service quality and patients' satisfaction in private hospitals. The sample size was determined using the Gpower software. There were five predictors tested in this study, hence, at effect size 0.02 (small), and the power required at 0.95, the required sample size was equal 138. However, to ensure that the optimum level of the number of respondents achieved, the questionnaires in this study were distributed to 150 respondents.

Measures

The service quality dimensions consist of empathy, assurance, responsibility, reliability and tangibility (Parasuraman et al, 1988, 1991). Meanwhile, the measurement items for service quality dimensions are adapted from Al-Borie and Sheikh Damanhour (2013). In addition, items from Nor Khasimah Aliman and Wan Normilla Mohamad (2013) are borrowed to measure patient's satisfaction. All items are constructed using a five-point Likert Scale ranging from "strongly disagree" (1) to "strongly agree" (5).

Tables

Table 1: Demographic Profile

Demographic Variables	Categories	Frequency	Percent	Cumulative Percent
Gender	Male	61	40.7	40.7
	Female	89	59.3	100.0
	Total	100.0	100.0	
Age	18 – 22	6	4.0	4.0

	23 – 27	22	14.7	18.7
	28 – 32	37	24.7	43.3
	33 – 37	31	20.7	64.0
	38 – 42	21	14.0	78.0
	43 – 47	20	13.3	91.3
	48 – Above	13	8.7	100.0
	Total	150	100.0	
Education Level	PMR/SRP	4	2.7	2.7
	SPM/STPM	13	8.7	11.3
	Diploma	27	18.0	29.3
	Bachelor Degree	67	44.7	74.0
	Master Degree	21	14.0	88.0
	PhD	11	7.3	95.3
	Others	7	4.7	100.0
	Total	150	100.0	
Respondents' Occupation	Government Sector	62	41.3	41.3
	Private Sector	45	30.0	71.3
	Others	43	28.7	100.0
	Total	150	100.0	

Responses from 150 respondents were collected and the data were analysed using IBM SPSS Statistics 23 and Smart PLS 3.0. The total variance for the Harman Single Factor for this study was 30.837% which indicates that this data is free from common method bias. Table 1 shows the demographic profile of the respondents in this study. In the demographic analysis, most of the respondents were female with 58.3% while male respondents made up 40.7%. The largest group of sample was those age between 28 – 32 years old (24.7%). The highest education levels of the respondents were bachelor degree with 67 respondents (44.7%) while PMR/SRP respondents were 2.7% only. Most of the respondents were from government sector with 41.3% and followed by private sector with 30.0% and others 28.7%.

RESULTS

In this study, demographic data were analysed using IBM SPSS 23 while the measurement path modelling analysis was performed using Smart PLS 3.0. In analysing the research model, the Partial Least Squares (PLS) analysis was utilized using the Smart PLS 3.0 software. As to examine the outer loadings thresholds, Average Variance Extracted (AVE) and Composite Reliability (CR) were performed to determine the validity of the measurement model. According to Hair, Black, Babin and Anderson (2017), the outer loadings should be > 0.70 threshold value, Composite Reliability (CR) > 0.70 and Average Variance Extracted (AVE) > 0.50 . However, outer loading values equal to and greater than 0.4 are still acceptable, given the cumulativeness of loadings result in high loading scores which lead to Average Variance Extracted (AVE) scores greater than 0.5 (Hulland, 1999). Based on Table 2, the Average Variance Extracted (AVE) values were all greater than 0.5 and the Composite Reliability (CR) scores in the result were greater than 0.70. Loadings which do not meet the minimum threshold scores were deleted. In analyzing the discriminant validity, this paper followed the suggestion by Henseler, Ringle and Sarstedt (2015) to assess discriminant validity using Heterotrait-Monotrait ratio of correlations (HTMT). Heterotrait-Monotrait ratio of correlations (HTMT) value is greater than Heterotrait-Monotrait ratio of correlations (HTMT).85 value of 0.85 (Kline, 2011) or HTMT.90 value of 0.90 (Gold, Malhotra and Segars, 2001) and this means that discriminant validity problem is not a concern.

According to Hair et al. (2014) the hypotheses developed for this study were tested using a bootstrapping procedure. The R^2 for this study is 0.438 which is acceptable according to Cohen (1988). Based on the result in Table 4, the assessment of the path coefficient shows that only two relationships are found to have t-value greater than 1.645 thus significant at 0.05. The predictors are assurance (2.444), and tangibility (5.487). The independent variable (empathy, assurance, responsibility, reliability and tangibility) in Table 4, explains 43.8% variances of the dependent variable. H_2 and H_5 in this study are supported. The effect sizes (f^2) for the two relationships achieved either from small to medium effect size as suggested by Cohen (1988). The Q^2 value is greater than 0 which indicates the model has a predictive relevance (Hair et al. 2014; Fornell and Cha, 1994). The final research model is shown in Figure 2.

Table 2: Internal Consistency Reliability

Constructs	Item	Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Assurance	A2	0.892	0.709	0.873	0.774
	A3	0.867			
Customer Satisfaction	CS1	0.887	0.913	0.933	0.699
	CS2	0.863			
	CS3	0.83			
	CS4	0.819			
	CS5	0.794			
	CS6	0.818			
Empathy	E1	0.768	0.824	0.883	0.654

	E2	0.832			
	E3	0.821			
	E4	0.812			
Reliability	RL1	0.805	0.755	0.844	0.576
	RL2	0.72			
	RL3	0.759			
	RL4	0.749			
Responsibility	RS3	0.892	0.754	0.856	0.666
	RS4	0.739			
	RS5	0.81			
Tangibility	T1	0.734	0.833	0.878	0.545
	T2	0.713			
	T3	0.748			
	T4	0.773			
	T5	0.725			
	T6	0.736			

Table 3: Heterotrait-Monotrait ratio or correlations (HTMT) Loadings

Construct	Assurance	Customer Satisfaction	Empathy	Reliability	Responsibility	Social Desirability	Tangibility
Assurance							
Customer Satisfaction	0.605						
Empathy	0.728	0.551					
Reliability	0.821	0.566	0.756				
Responsibility	0.835	0.552	0.78	0.824			
Tangibility	0.587	0.705	0.608	0.78	0.74	0.512	

Table 4: Hypothesis Testing

Hypothesis	Relationship	Std Beta	Std Error	T-Values	P Values	5.00%	95.00%	Decision
H ₁	Empathy -> CS	0.114	0.077	1.469	0.071	-0.013	0.242	Not Supported
H ₂	Assurance -> CS	0.209	0.085	2.444	0.007	0.069	0.35	Supported
H ₃	Responsibility -> CS	0.012	0.087	0.142	0.444	-0.127	0.16	Not Supported

H ₄	Reliability -> CS	-0.037	0.113	0.331	0.37	-0.228	0.141	Not Supported
H ₅	Tangibility -> CS	0.469	0.086	5.487	0	0.323	0.604	Supported

Table 5: The results of R², F² and Q²

Hypothesis	Relationship	R ²	F ²	Q ² (=1-SSE/SSO)
H ₁	Empathy-> CS		0.012	0.29
H ₂	Assurance -> CS	0.438	0.043	
H ₃	Responsibility -> CS		0	
H ₄	Reliability -> CS		0.001	
H ₅	Tangibility -> CS		0.221	

FINDINGS

While previous study by Nor Khasimah Aliman and Wan Normilla Mohamad (2013) found positive links between all dimensions to patient satisfactions, this study only found assurance and tangibility to be positively correlated to patient satisfactions. The result of this study is parallel with the findings by Aghamolaei et al., (2014), which found that assurance is the most important dimension in determining patient satisfaction. According to the researchers, assurance is imperative because it instils confidence among patients, creates positive emotions i.e. safe when interacting and dealing with hospital staff. The patients probably think that doctors, nurses and other hospital personnel might have sufficient knowledge and courteous which make them feel secure and safe.

In the meantime, private hospitals also need to pay attention to their physical aspects and facilities in delivering their services. The findings of this study confirm previous study by Zarei et al., (2012) which demonstrates that tangibility is important in the evaluation of hospital service quality. Not only these private hospitals need to provide positive ambience but also they need to ensure that basic facilities such as ample parking spaces, clean toilets and sufficient seats in waiting area are provided.

The other dimensions i.e. empathy, reliability and responsibility are found to have no link to satisfaction among outpatients of private hospitals in Kota Kinabalu, Sabah Malaysia. The plausible reason for these relationships is probably because compared to in Peninsular Malaysia, the number of private hospitals in Kota Kinabalu, Sabah is still few. According to Che Rose et al., (2004), patients do not apparently choose between public and private hospitals because of their services but they rather go to hospitals at where their selected doctors are based. And since most of the outpatients in Sabah are still seeking medical treatment provided by the government, therefore, whenever they visit private hospitals, there is a tendency that they make comparisons between the services provided by the private hospitals and the public hospitals. Besides, this study only collects the responses from outpatients in private hospitals. Outpatients spend little time in the hospitals and deal in only few departments in the hospitals. Thus, this could explain why empathy, responsiveness and reliability are not significant towards patient satisfaction.

Compared to outpatients, inpatients make more contacts with the hospital staff and spend more time in the hospitals. Different findings could be possibly gathered among inpatients in private hospitals which signifies an avenue for a future research.

In addition, between these two dimensions, the result demonstrates that tangibility has greater effect than assurance towards patient satisfaction. This probably because the outpatients in Kota Kinabalu tend to make comparisons in regard of facilities provided by public and private hospitals in Kota Kinabalu. Furthermore, due to their socio-economic status, the patients seeking treatment in private hospitals expect excellent and reliable facilities in an exchange of the financial sacrifices that they make (Che Rose et al., 2004).

IMPLICATIONS

This study has contributed to the service quality by investigating the five important dimensions in private healthcare. In addition, the findings of this study can be beneficial to hospital managers particularly in Kota Kinabalu, Sabah Malaysia in ensuring that they deliver the best service quality to their patients. Good services are important in achieving satisfaction and loyalty. By having loyal patients, the private hospitals can stay competitive in the industry.

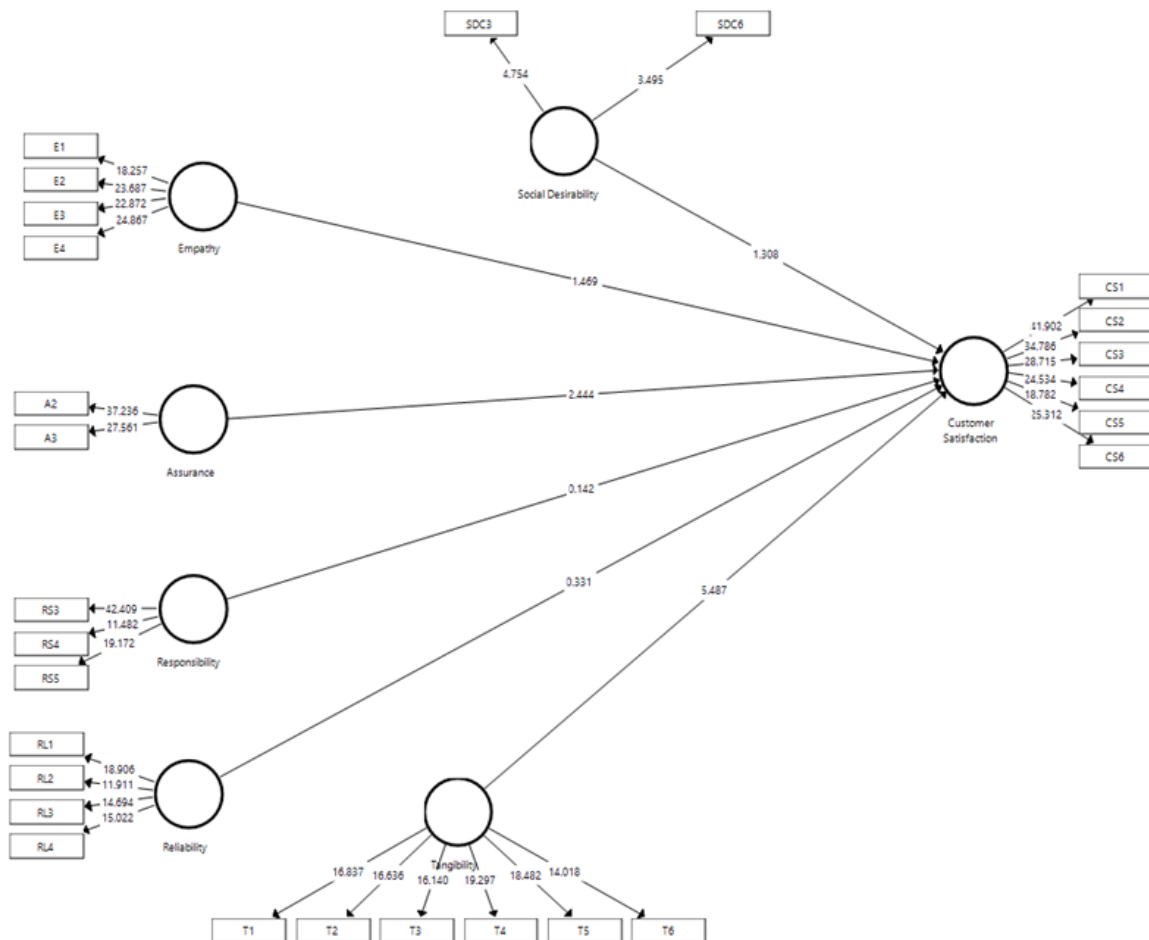


Figure 2: Hypotheses Testing

CONCLUSION

This research is carried out to determine the relationship between empathy, assurance, responsibility, reliability, tangibility and patients' satisfaction in private hospitals in Kota Kinabalu. The findings of this study show that Assurance (H2) and Tangibility (H5) have positive relationships towards patients' satisfaction in private hospitals in Kota Kinabalu. However, the current study is limited as it only examines the outpatients' perceptions. It will be noteworthy if both outpatients and inpatients are considered as a sample in future studies. In addition, inclusion of a moderating variable such as income and age to the research framework will be interesting as it could assist the hospital managers to improve their services and plan better marketing strategies.

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