The Impact of Customer Perceived Service Quality on Customer Satisfaction for Private Health Centre in Malaysia: A Structural Equation Modeling Approach

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Abstract: The main purpose of this paper is to develop and test the modified SERVQUAL model to measure Malaysian private healthcare quality. A total of 131 participants were selected randomly those visit private hospitals in Malaysia for healthcare facility. Then data were examined using means, correlations, principal component and exploratory factor analysis to establish the modified SERVQUAL scale's reliability, underlying dimensionality and convergent, discriminant validity. This paper than utilizes the structural equation modeling technique to do confirmatory factor analysis and test the hypothesized positive inter-relationships between customer's perception and customer satisfaction. This paper reviews and identifies essential service quality variables that are associated with the customer satisfaction in the private hospital. Customer satisfaction should reflect the need of healthcare quality requested by the customers, as direct and indirect relationships exist between personnel support and customer satisfaction and attention to customers and hospital facilities and between hospital facilities and customer satisfaction. The proposed model has been tested on only one private hospital in Malaysia due to short period. Due to this small sample size and the convenient method of data collection, there is a possibility of biasness of the authors may play a role in the outcome of the study. The main contribution of this study is that, it proposes a way to assess quality services in the private hospitals. This study has proposed a conceptual model that need further investigation and opens a way for future research.

Keywords: *SERVQUAL, Health services, Healthcare, Quality, Malaysia*

1. Introduction

Service quality is not the magniloquence of the today's business enterprise but also occupies a towering position in every business. Without providing accurate level of satisfaction to customer with good levels of service quality no business can survive; they are key point to the organization now a day. Better service quality improves the relationship between customers and the organization and this is a two-way flow of value (Ojo, 2010). Which means work as a suspension bridge that hang within customer and organization, thus it shows the valuable exchange among them. Mortazavi, Williams, McCue, Schaeffer and Wold (2008) describe customer satisfaction as the key business strategy for a large number of organizations in strengthening their market positioning. There is a vast literature can be found on customer satisfaction and service quality, particularly in the field of marketing. However, most studies have focused mainly on products and their characteristics. Butcher (2000) argued that, this remains underdeveloped in the service literature as the number of reliable measurements are very. According to Ojo (2010) despite the fact that service sector are the majority of the total economy, service quality is still considered to be a key competitive advantage in global markets. A huge number of empirical studies has found on the subject matter of service quality and customer satisfaction (Choi, Cho, Lee, Lee & Kim, 2004; Cronin & Taylor, 1992; Ojo, 2010; Ramsaran-Fowdar, 2005; Ranaweera & Prabhu, 2003; Spreng & Mackoy, 1996). Most of the research conducted in both developed and under developed countries like, United Kingdom, Japan, United States, India and Nigeria. However, there is very few studies have been found on Malaysia. Many researcher focuses on the telecommunication industry, bank, super market and other which are highly profit oriented organization. Despite the growing literature on healthcare quality, the empirical validation of how its key factors are inter-related is limited.

The interrelationships between what the hospitals are doing and how they are going to achieve their aims appears to be ignored. Therefore, this paper aims to verify this relationship and the factors affecting the customer's satisfactions in the healthcare industry, thus providing a greater understanding of their inter-dependence that, in turn, facilitates service quality improvement. Private hospitals are more profit oriented than the public hospital. Revenue generating of the firm largely depends upon the attraction of

the customer and retain them. A satisfied customer is always an asset for an organization. Therefore, every company has the objective to attract them with their service quality and make them satisfied for long return. It has been found that, many factors that are related with the service quality in the hospital especially private ones may drive out the patients. In these regard, the study will focus on the matter in which the patients are giving more priority. On the other hand, as the demand for quality services are ever rising in the healthcare sector, hospitals and their staffs need to be more concerned for providing quality services to sustain in the end. As a result, healthcare providers are expected to give greater concentration in achieving their patient's satisfaction and the ways in which patient satisfaction dimension can be further integrated into an overall measure of medical quality.

2. Literature Review

The study of customer satisfaction have broadly considered by the social psychologists, marketing researchers, and the field of consumer behavior. Throughout the past few decades, service quality has drawn a tremendous consideration from researchers and practitioners due to its significance contribution on business performance, customer satisfaction, customer loyalty and profitability (Santouridis & Trivellas, 2010). Thus, they have been identified as an integral part of the organization for expanding market share by attracting customer and retain them for long run. Due to change of dynamic nature of business environment in health care industry Flood and Romm (1996) mentioned the "redesigning" and "customer needs" must be regularly improved to maintain the good relationship of the service quality and patients overall satisfaction. Many researchers identified the patient satisfaction as their psychological or cognitive perceptions from the service that are provided form the health care center (Olson & Jiang, 2002). For this reason, the proper balance between the satisfaction of customer and the healthcare policy reform are managed with the consumer analysis and psychological perception to maintain the service quality for health and value for finance among the intensive price mechanism for medical industries. As a result, the measurement for customer satisfaction and the service quality provided by the health care sectors are vital with some construct such as the staffs including doctors and nurse responsiveness, sociability, politeness, civility, capability, access, communication and the accessibility of the medical doctor and the hospital staff. Therefore, customer satisfaction is about fostering and meeting customer predilections and expectations to improve customer delivered value (Oakland, 2000).Researchers termed service quality in many ways such as zero defects (Crosby, 1979) or quality measured from internal and external breakdown (Juran, 1980). Padma, et al., (2009) termed service quality as "perceived service quality" from the point of view of patients. Nevertheless, these classifications are relevant for defining quality in manufacturing sectors where product quality is the main factor for them. The primary indicator of product quality always measured by its sturdiness, imperfection, dependability, etc. is hard to imitate in service sectors (Parasuraman*et al.,* 1988). However, on the other hand quality in service is defined in different ways.

In the service sector, balance between the customer expectation and service provided by the company are the main measurement for service quality in this regard customer has to face the sales person or service provider directly which is usually called face to face communication (Lewis and Booms, 1983). Parasuraman et al., (1988) gave a precise definition about service quality that is "a global judgment or attitude relating to the overall excellence or superiority of the service" (p. 16).The service quality in health care industry is a vital part for attracting customer. There are number of health centers are around the Malaysia. Competitive offerings are a creating a center of attention for the customer not only from the within the country but also from abroad. Gronroos (1990) focused on two major components of the service quality in the health care sector: one is technical or mechanical quality and another is serviceable or functional quality. In the health care industry technical equipments and other related medical diagnoses systems are core for patients checkup for their treatment and functional quality measured by the service offer by the health care center such as services of staffs, nurses, administrations and most importantly the doctors towards the patient and their assistants. It has been found from different health care research patients mostly give priority to the functional quality rather than the technical quality though the technical quality may not be satisfactory (Bowers et al., 1994). However, for the medical patient the technical quality should be a prime object because the proper treatment of patients largely depends upon the proper diagnoses of the diseases. Sometimes many patients do not have precise idea about the technical matter for the treatment. In this regard, the consciousness of the patients is a vital matter. Lam (1997) found in his study that many patients could differentiate the performance in caring and curing that serve by the medical center service providers. For this reason, sometime it becomes a

potential problem for collection of data, as they are the main source of judging the service quality of the industry.

The personnel support service are expected to be approachable, dependable, gracious, sincere and capable by the customers. Personnel support consists of all the interactions between service personnel and patients including moments of certainty, serious incidents, service upturn, etc. (Padma, et al., 2009). Kiran (2010) also found in his study that the staff perceives quality is the core for customer satisfaction. Co-operative and helpful staffs are able to instill confidence among the customer of the industry. Staffs have to provide error free recording for the patients. The proper allocation of time toward the patients should be consistent in terms of service. Hospital facilities include the concrete features of a delivery of service, e.g. machineries, physical structure and appearance of the hospital, signage, availability of resources, etc. Thus, it also highlights the surroundings of the hospitals that are "services capes" (Padma, et al., 2009). The hospital facilities are crucial for patient's medical treatment. Mental satisfaction has significantly related with the environment of the surroundings. Nwankwo, et al. (2010) found different perceptions of patients in both public and private hospital. They investigated that publics hospitals are providing most unsatisfactory service to the customer and identified reasons are mentioned as the doctor's responsiveness, length of appointment getting time, and access to core treatment and opening hours. Customers are needed to be individually focused. A certain amount of time should be provided for the customer for their proper treatment. Customer service providers' approaches and the facilities serve by the organization are obviously key factors that consumers should rely (Oswald et al. 1998). The study by Oswald et al. (1998) pointed out that there is a major relationship among the patient or customer satisfaction and the quality of services that are provided by the health care center. The focus of the health care center is to give full attention to the proper treatment of the patients in their hospital with all equipments. On the other hand, many researchers think that the variation of service quality toward patients may ups and down from the physicians wrong assessments of the patients (Swartz & Brown, 1989). Thus, this perception gives patients a negative though about the health center service quality which may disseminate to other potential patients or customer of that health center (Brown & Swartz, 1989).Whilst a numerous approaches to the explanation of customer satisfaction are prevailed, the most widely used expectancy disconfirmation theory is the one which proposed by Oliver (1980). The theory has confirmed in many studies that customer expectation about purchasing or consuming any service or product which deals with customer pre-purchase anticipation (Oliver & DeSarbo, 1988; Tse & Wilton, 1988). Once the product or service has been purchased or consumed, outcomes are compared against expectations.

To summarize with this phenomena that is, an individual's satisfaction with outcomes received from a hospitality experience results from a comparison of these outcomes with expectations. The relationship of patient's satisfaction and perception regarding healthcare service found during last two decades. Many researchers stated the significant relationship between the perception of service quality and customer satisfaction in healthcare industries (Cronin & Taylor, 1992; McAlexander, et al. 1994). Most researches shows the importance of healthcare's functional capability such as decoration, nurse behavior, staffs services and interactions with the patients rather than the center's technical capability for treatment (Brown & Swartz, 1989; Crane & Lynch, 1988; Barnes & Mowatt, 1986). Cronin and Taylor (1992) found a significant relationship among the satisfaction gained by the patients in the health care and the plan to purchase. Santouridis and Trivellas, (2010) mentioned that satisfaction and consumers' expectations are very much closely related. Thus the difference between the service quality and customer expectation is lower the customer satisfaction can be obtained (Hutcheson & Moutinho, 1998; Santouridis & Trivellas, 2010). SERVQUAL is one of the most powerful measurement tools for identifying the customer's service level for any organization and it has been developed in a sequence of phases leading to successive more sophisticated versions (Santouridis & Trivellas, 2010). The most frequent version of it prepared by Parasuraman et al., (1988), that consists of five components are reliability, tangibles, responsiveness, assurance and empathy with 22 items. Each dimensions measured twice, firstly it investigate the customer expectation and later the performance of the service provider (Llosa et al., 1998). The main purpose of the SERVQUAL is to measure the result of customers' expectation and perception regarding on particular service sector. Many researchers have applied SERVQUAL in different health care sectors (Lam, 1997; Hasin et al. 2001; Rohini & Mahadevappa, 2006; Padma, et al., 2009; Nwankwo, et. al. 2010). Patients show the various factors as important in health care sector such as the nursing, food quality, technical facilities, and cleanliness and other direct customer service related activities. Hasin et al. (2001) found in their study that the communication, responsiveness, courtesy, cost and cleanliness are the major concerns for the service quality in Thai hospitals. They also investigated that staffs norms and behavior

are also key factors for customer satisfaction. In India, SERVQUAL applied in some hospitals in Bangalore region. The study shows the tremendous gap between the customer expectations and perception from the hospitals services (Rohini & Mahadevappa, 2006).

3. Methodology

As this was an experimental study, only one focus group has been studied in this research that is the patient of the Columbia Hospital of Asia, Malaysia. Patients' are those who are already in the hospital and having services of the hospital. The study used modified SERVQUAL framework (Parasuraman, Zeithaml & Berry, 1985; 1988; 1991) with 22 items, about the quality of healthcare, procedures, service activities, frequency of visiting the hospital, etc as SERVQUAL is a valid predictor of overall service quality (Carrillat, Jaramillo & Mulki, 2007). All variables included in the questionnaire were set on a seven-point scale (7=Strongly Agree and 1 is strongly disagree) and these scales were used to conduct factor analysis. First, data were analyzed with the Statistical Package of Social Sciences (SPSS) version 16 using Factor Analysis (FA). After the factor analysis, a Confirmatory Factor Analysis (CFA) was done using Amos 16 followed by Structural Equation Modeling (SEM) to achieve impending the interactions and associations among the various service qualities of the conceptual model. For assessing and identification of main factors regarding private healthcare the study used only customer perceived quality. Thus, this research looked for the important factors further and provides suggestions.

Questionnaire Survey and Data Collection: The population of the study focused on the patients of Columbia Hospital of Asia in Balakong, Selangor, Malaysia. In this research, only one focus group has been studied, that is the in-patients of the hospital. A convenient random sampling method was adopted so that all samples of the same size have an equal chance of being selected from the entire population. Determining adequate sample size in qualitative research is ultimately a matter of judgment and depends on the particular research method (1995). For this small scale study a total of 200-sample sizes found to be valid and eventually distributed among the potential respondents for this study, of which 135 questionnaires were received. Each of the response received systematically screened for errors, incomplete and missing responses. However, those responses that still contained questions in the survey questionnaire that had been remained unanswered or left incorrectly answered finally discarded from data analysis in order to establish a rationality of analysis through proper representation. After having the screening process completed, 131 responses found valid for data analysis. This represents a rate of 67.5%, which is considered extremely well in view of time, cost, certainty and geographical constraints (Sandelowski, 1995). Next, we analyzed the received responses using SPSS (version 16) to compute their mean scores, standard deviation, skewness and kurtosis, hence ensuring a better understanding of the distribution of each item used in measuring service quality. Factor analysis is used in the study to identify the salient attributes that have impact on consumers' perception to evaluate the healthcare service providers. Since, Factor analysis represents an analytical process of transforming statistical data (as measurements) into linear combinations of variables, it is a meaningful statistical method used for combining a large number of data into a considerably smaller number of factors with a minimum loss of information (Hair, et al., 2010). In addition, SEM (structural Educational Modeling) has been carried out to investigate the relationship among the variables that influence the consumers' perception choice in selecting the healthcare service providers.

4. Results and Discussion

Factor Analysis: The results obtained from 131 respondents have been thoroughly analyzed and the outputs of the results have been clearly explained in this section. Applying SPSS, the principal component analysis (PCA) was carried out to explore the underlying factors associated with 22 items. The constructs validity was tested applying Bartlett's Test of Sphericity and The Kaiser–Mayer–Olkin Measure of sampling adequacy analyzing the strength of association among variables. The Kaiser–Mayer–Olkin measure of sampling adequacy (KMO) was first computed to determine the suitability of using factor analysis. It helps to predict whether data are suitable to perform factor analysis. KMO is used to assess which variables to drop from the model due to multicollinearity problem. The value of KMO varies from 0 to 1, and KMO overall should be 0.60 or higher to perform factor analysis. If this does not have achieved, then it is necessary to drop the variables with lowest anti image value until KMO overall rises above .60. Result for the Bartlett's Test of Sphericity and the KMO reveal that both were highly significant and eventually concluded that this variable was suitable for the factor analysis (Table 1).

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.623
Bartlett's Test of Sphericity	Approx. Chi-Square	511.296
	df	231
	Sig.	.000

Table 2: Rotated Component Matrix

Rotated Component Matrix^a

	Component						
	1	2	3	4	5	6	7
SQ9	.747						
SQ16	.743						
SQ21	.622						
SQ13	.564						
SQ1	.545						
SQ6		.769					
SQ2		.737					
SQ7		.627					
SQ5			.838				
SQ14			.595				
SQ18			.585				
SQ10				.843			
SQ15				.687			
SQ20				-.687			
SQ19					.708		
SQ11					-.661		
SQ12					.502		
SQ3			-.523				
SQ8						.817	
SQ22						-.665	
SQ4						.505	
SQ17							.832

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 13 iterations.

Deciding upon the number of factors that can be retained is difficult. To determine the minimum loading necessary to include an item in its respective constructs, Hair et al. (2010) suggested that variables with loading greater than 0.30 is considered significant, loading greater than 0.40 more important, and loading 0.50 or greater are very significant. For this study, the general criteria were accepted items with loading of 0.60 or greater. As a result, three underlying factors, represented by 11 items, were extracted and are listed below; following the examination of factors and associated items, the following labels were assigned to reflect factors' common and latent properties: Personnel Support, Hospital Facilities and Attention to Customers. According to the Sekaran (2000), Cronbach alpha is reliability coefficient that indicates how well the items are positively correlated to one another. Reliability coefficient tested by using Cronbach's alpha (α) analysis. In order to measure the reliability for a set of two or more constructs, Cronbach alpha is a commonly used method where alpha coefficient values range between 0 and 1 with higher values indicating higher reliability among the indicators (Hair, et al., 2010). After the re-allocation of the eleven items, the reliability test was conducted to ensure that, the extracted three factors are appropriate for this grouping. In accordance with the Cronbach alpha test, the total scale of reliability for this study varies from .618 to .730, indicating an overall higher reliability factors. The reliability of this study is substantial in every perspective, as the highest reliability value that can be achieved is 1.0. In sum, the EFA gave rise to a total of 03 attributes, grouped to explain three latent factors.
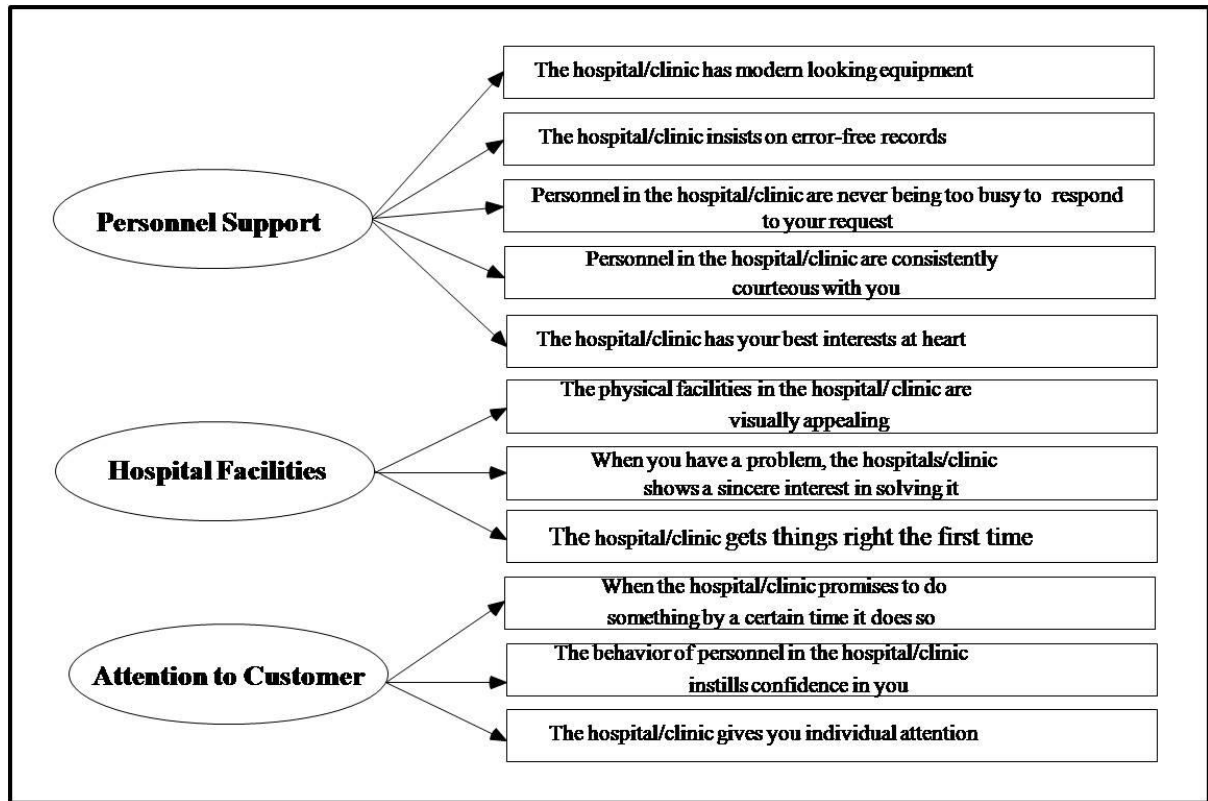
Figure 1: Extracted Factors from EFA

Figure 1: Extracted Factors from EFA

Table 3: Reliability Test

Item	Cronbach's Alpha	No of Items
Personnel Support	.730	5
Hospital Facilities	.750	3
Attention to Customer	.618	3
Overall Reliability	.691	22

Structural Equation Modeling (SEM): Before a latent variable model analysis is conducted, the validity and reliability of the constructs must be assessed. The unidimensionality and reliability of the scales must also be established before their convergent and discriminant validity is assessed (Anderson & Gerbing, 1998).Unidimensionality measures the extent to which the items in a scale all measure the same construct (Venkatraman, 1989). Confirmatory factor analysis (CFA) can be used to assess unidimensionality. A CFA was conducted for each of the three constructs to determine whether the 11 indicators measured the construct, they were assigned to adequately. Maximum likelihood estimation was employed to estimate the CFA model. The SEM program AMOS 16 was used throughout the study to conduct the analyses. Empirical evidence in CFA (and SEM in general) is generally assessed using criteria such as the comparative fit index (CFI), the Root mean square residual (RMR), Goodness-of-fit index (GFI), Adjusted Goodness-of-fit index (AGFI). Table 4 summarizes the results of these tests. CFI: This index compares a proposed model with the null model assuming that there are no relationships between the measures. CFI values close to 1 are generally accepted as being indications of well-fitting models (Raykov & Marcoulides, 2000). A CFI value greater than 0.90 indicates an acceptable fit to the data (Bentler, 1992). The CFI values are displayed in Table 4. An analysis of the table reveals that the CFI values are very high ranging from 0.930 to 0.951, which suggests very good model fits. Content (internal) validity: Content validity depends on how well the researcher created measurement items using the relevant literature to cover the content domain of the variable that is being measured (Bohrnstedt et al., 1983). The selection of items in this study was based on an extensive review of the literature, giving a strong content validity to the variables being measured. Convergent validity: The Bentler-Bonett Normed Fit Index (NFI) obtained from CFA can be used to assess convergent validity. This index measures the extent to which different approaches to measuring a construct produces the same results (Ahire, Golhar &

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Waller, 1996). According to a rule of thumb, NFI values of 0.90 or greater indicate an adequate model fit (Bentler, 1995). GFI: The goodness of fit index, tells what proportion of the variance in the sample variance-covariance matrix the model accounts for. This should exceed 0.9 for a good model. AGFI: Adjusted GFI is an alternate GFI index in which the value of the index is adjusted for the number of parameters in the model. Few numbers of parameters in the model relative to the number of data points.

Measurement Model: There are potentially two possible options involved in the process of model refinement (Kline, 2005). The first option is the elimination of "paths" with very low correlations. The second option is the removal of the observed variables those having multi-collinearity. In doing so, one observed variable was deleted. Further modifications did not improve the model fit, thus leading to the best-fit measurement model shown below;

Figure 2: Measurement Model
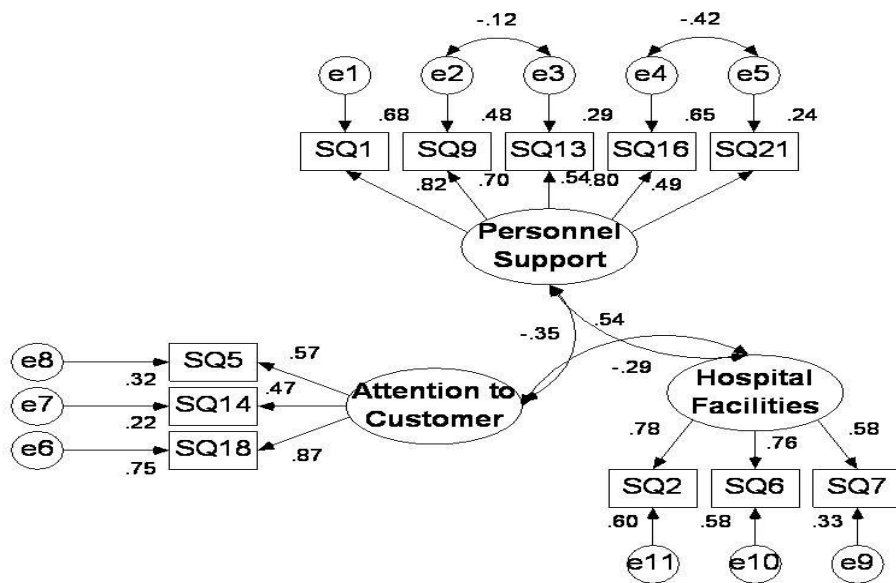
A summary of standardized path coefficients, together with the square multiple correlations (R2), of the best-fit measurement model is shown above. Though all path coefficients are not positive but statistically significant at p, 0.05, thus their significance to the model is amplified. Moreover, most of the R2 of the observed variables were greater than 0.50, indicating a reasonably good convergent validity of the model.

Structural Model: Finally, a structural equation model was developed and tested to examine the direction of assumed relationships between the three latent variables, as reflected by the arrows connecting them (see figure 3). In the model, the arrows were assumed to support the argument that Personnel support directly influences Customer satisfaction and Attention to customers has an indirect effect to Customer's satisfaction through Hospital facilities. Bi-directional arrows were used to show the relationships among the three independent variables (Personnel support, Hospital facilities and Attention to customer), without an explicitly defined causal direction. This was because of the variables' potential to affect each other. To explore this relationship further, and to improve the overall model fit, a number of model runs (with different arrow directions connecting those two enablers) were carried out. Any links with very low correlations, or items showing signs of multi-collinearity were deleted. For each run, GOF indices were computed and compared. According to Clissold (2004), the model with the best fit should prove the directional influences. The fitted model, with the GOF indices are shown at table 3, was deemed to be the final model of service quality to customer satisfaction, which is given above. This model confirmed that Personnel support has a significant direct relationship with customer satisfaction (with path coefficient of 0.71), and it explains and influences of 82 per cent of the variance in customer satisfaction. The model has also confirmed that, Attention to customer (with path coefficient of 1.00) has a positive and indirect relationship with customer satisfaction through Hospital facilities (with path coefficient of 1.01).
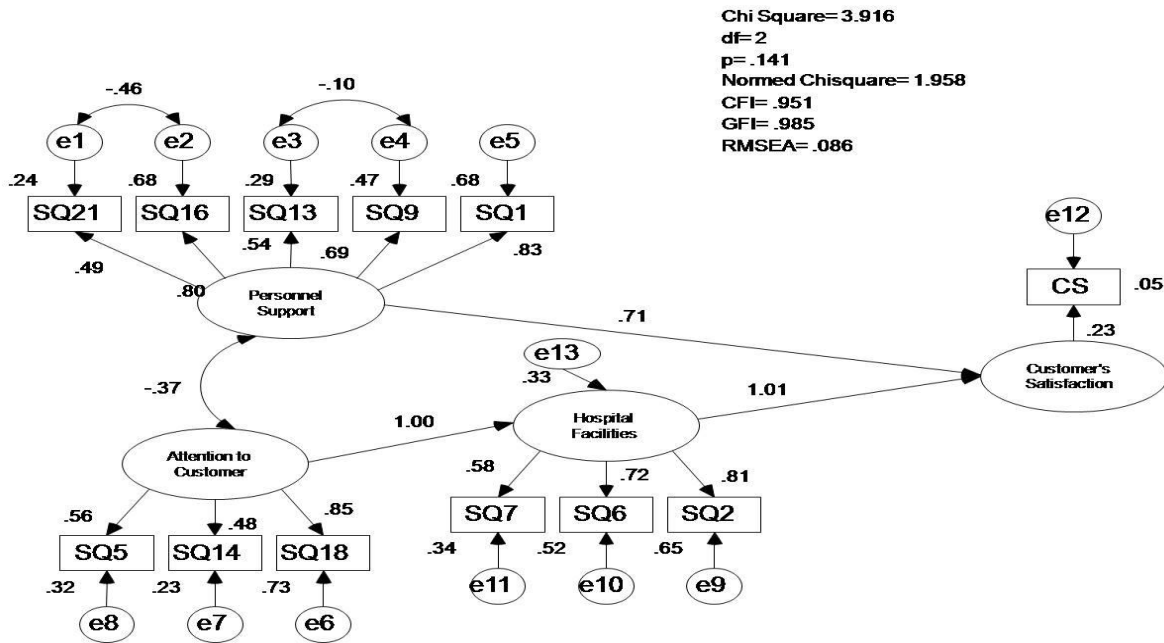
Figure 3: Structural Model

Table 4: *Reliability Test*

Fit indices	Recommended level	Fitted Measurement Model	Fitted Structural Model
Chi Square	≤ 3, 3-5 maybe (Hair *et*. al. 2010)	3.006	3.916
CFI	> 0.90 (Kline, 2005)	0.930	0.951
NFI	> 0.90 (Bentler, 1995	0.916	0.927
GFI	> 0.90 (Jöreskog, 1973)	0.962	0.985
RMSEA	< 0.08 (Hair *et*. al. 2010)	0.080	0.086
P-value	> 0.05 (Hair *et*. al. 2010)	0.141	0.141

Assuming that the default model is correct, the probability of getting a discrepancy as large as 3.916 is 0.141 (p value should be greater than 0.05, which indicate very good fit) (Hair et al., 2010). The GFI (goodness of fit index) 0.985 also proves to be a very good fit (Hair et al., 2010). The comparative fit index (CFI) is 0.951, NFI is 0.927 indicate a very good fit, too (Hair et al., 2010).For RMSEA, a value of about .08 or less would indicate a close fit of the model in relation to the degrees of freedom (Hair et al., 2010).Nevertheless; in our case we found a bit higher value 0.086 though it is very close to the good fit. The value of SEM lies in its ability in showing both the direct and indirect effects between the variables. In light of this, the best-fit model appears to indicate that personnel support strongly influences customer satisfaction, whereas hospital facility mediatory influences customer satisfaction. No statistically significant relationship, however, was found between dedication and customer satisfaction. It is worth noting that, R2 for customer satisfaction was 0.48, demonstrating that 48 per cent of the variance associated with customer satisfaction was accounted for by its two predictors, namely personnel support and attention to customer.

Discussion: This study examined the interactions between the key elements of service quality and its impact on customer satisfaction. The statistical results confirms the existence of a very strong relationship between personnel support and customer satisfaction, implying that excellent positive outcome can only be achieved through the rigorous implementation of various support procedures as well as increasing the facilities related to improve customer's satisfaction, which appears to be directly related to the patients of the hospital. The findings of this study is also consistent with some of the recent quality management studies (e.g. Eskildsen & Dahlgaard, 2000; Pannirselvam & Ferguson, 2001) where improvement of quality to attract more customers for the private hospitals was found to be directly related to strategic planning. Although in the model, attention to customers did not have a significant direct effect on customer's satisfaction, they did, however, have a significant indirect effect through its influence on hospital facilities. Interestingly, personnel support has a relatively weak direct effect on

customer satisfaction. To be competitive in an ever-increasing private healthcare industry, Malaysian private hospital staffs need to emphasis on the customer attention procedures and institute genuine customer support when dealing with customers. It can be concluded that customers are the key for the success of the private hospitals. Therefore, it can be suggested that, an effective marketing policy will influence the future customers that, in turn, will enhance the revenue of the hospitals.

5. Conclusion and Limitations

Grounded on extant literature, a conceptual model was developed and tested using data and information gathered via a questionnaire survey covering the main attributes of customers' satisfaction in the health sector. This study used structural equation modeling to empirically validate the proposed causal relationships between the variables. This also allowed us in testing all the relationships concurrently. The finding also helps us in understanding the fundamental relationships among the variables and enhancing the knowledge for the hospital management to determine where they should concentrate to accomplish their business goals. In this study, it was found that personnel support influences customers in aspect of their satisfaction. Thus, private hospitals should be more careful in promoting health services and ensure that customers get their needed services. It is obvious that, personnel support is the main driver to effective customer satisfaction, and that the strong commitment of the hospitals is crucial in promoting health services. Additionally, customer satisfaction should reflect the need of healthcare quality requested by the customers, as direct and indirect relationships exist between personnel support and customer satisfaction and attention to customers and hospital facilities and between hospital facilities and customer satisfaction. There is urgent need for quality healthcare for any citizens of the society. Therefore, understanding this need of customers is crucial for the staffs working in the hospitals. Failing to meet or exceed customers' quality needs is not an option for any health service providers. Therefore, developing a measure that systematically weighs health service quality could significantly contribute towards service improvement. In the academic era, no study is perfect. This study is not beyond those limitations. The proposed model for this study has been validated by collecting data from only one private hospital due to shortage of time. Due to this small sample size and the convenient method of data collection, there is a possibility of bias playing a role in the outcome of the study. Future study need to be conducted with a bigger sample size to obtain better results. Nevertheless, this study offers support for the proposed conceptual model and an empirical basis for comparison in future research.

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