

The Customer Satisfaction Index Model: An Empirical Study of the Private Healthcare Sector in Malaysia*

Ahmad Azmi M. ARIFFIN¹, Norhayati M. ZAIN², Bama V.V. MENON³, Norzalita A. AZIZ⁴

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Abstract

The main purpose of this study was to gauge the patient satisfaction index and subsequently discuss the Importance-Performance (IP) matrix analysis of the inpatient services in the context of the private hospital setting. The Malaysian Customer Satisfaction Index Model was employed as the theoretical framework for the above purposes. This study involving 242 patients in Malaysian's private healthcare sector used a Web-based survey as the main method of data collection. Partial least square structural equation modeling (PLS-SEM) was utilized for data analysis. Using Fornell et al. (1996)'s formula, the resulting patient satisfaction index was slightly lower than the "very satisfied" category, the target level required for positioning as one of the world's premier medical tourism players. The IP matrix showed that medical quality is the main competitive advantage of the private hospitals that can propel their growth in the global healthcare marketplace. The results also indicate that outcome quality, patient rights, and privacy, and service quality are the three quality domains that need to be prioritized for further improvement. On the other hand, the servicescape quality domain needs to be strategized as the unique selling proposition as the performance of the private hospitals in this regard is already extremely good.

Keywords: Patient Satisfaction, Perceived Quality, Patient Loyalty, Importance-Performance Analysis

JEL Classification Code: I11, M31, Z31

1. Introduction

Patient satisfaction is critical to any healthcare organization's success. Patient satisfaction must be assessed on a regular basis to maintain the long-term viability of any healthcare facility, especially in the for-profit sector. According to a review of related literature, the majority of

the instruments used to measure customer satisfaction are based on professional practice standards and accreditations rather than the specific traits or qualities of the service (Sahin et al., 2007). In other words, the instruments used were not developed based on systematic consumer research that takes into account not only the requirements of professional standards but also the actual needs and preferences of the patients themselves. According to Pham et al. (2020), quality care is difficult to measure in the context of hospital service provision primarily due to its complex operational system as a whole.

A vast majority of published theory-based studies on patient satisfaction such as Akob et al. (2021) and Giao et al. (2020) were found to have employed the SERVQUAL framework or its modified version as the underpinning theory. Proposed by Parasuraman et al. (1988), the dimensions of service quality in SERVQUAL have been pre-determined by employing a standard measurement. Taylor and Cronin (1994) argued that healthcare researchers need to avoid the use of generic scales or frameworks as they are most likely to translate poorly in the context of healthcare services. To address the above research issues, in the present study, the National Customer Satisfaction Index

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¹First Author and Corresponding Author. Associate Professor, Graduate School of Business, Universiti Kebangsaan Malaysia, Malaysia [Postal Address: Bangi, Selangor, 43600, Malaysia]
Email: aama@ukm.edu.my

²Associate Professor, Medical Imaging Department, School of Health Sciences, KPJ Healthcare University College, Malaysia.
Email: norhayati@kpjuc.edu.my

³Deputy Dean, School of Pharmacy, KPJ Healthcare University College, Malaysia. Email: bamamenon@kpjuc.edu.my

⁴Associate Professor, Graduate School of Business, Universiti Kebangsaan Malaysia, Malaysia. Email: eita@ukm.edu.my

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Model which was developed taking into consideration the various important theoretical and practical aspects was employed. Specifically, this present study employed the Malaysian Customer Satisfaction Index Model (MCSI). The MCSI is a Malaysian national index that was developed to measure an industry's performance and make cross-industry comparisons easier.

The goal of this study, however, was not to give empirical proof or to examine the relationship between all of the identified drivers and outcome variables and patient satisfaction. The goal of this study was to show how to use the MCSI model to calculate the patient satisfaction index. The study's specific focus was chosen to be hospitalisation or in-patient services for this purpose. The hospitalization service was chosen because it is a complicated healthcare service that entails a variety of service encounters and exchanges over a long length of time within the hospital grounds. The majority of prior studies in this area focused on outpatient services or the treatment of a specific ailment rather than the overall hospital stay experience. The current study was limited to a private hospital context because, in comparison to the public or government-owned hospitals, the necessity to generate profit necessitates a more effective customer (patient) care strategy. The for-profit structure of this environment also has an impact on how the perceived value construct is operationalized, as private hospitals are frequently accused of being more concerned with producing profits than with delivering required treatment at a reasonable cost.

As previously said, proper analysis of customer satisfaction is critical because the goal is to guide management plans for improvement. This study aims to illustrate the development of the Importance-Performance (IP) matrix analysis based on the expanded MCSI model, in addition to evaluating the patient satisfaction index for hospitalisation services in the context of a private hospital. The IP matrix is a valuable management tool for identifying traits that need to be enhanced or maintained, as well as those that have been over- or under-invested.

2. Literature Review and Conceptual Model

According to Fornell et al. (1996), the optimum approach for measuring customer satisfaction should include both the determinants (causal) and the consequences (effect) in one model. The MCSI model, which represents a cause-and-effect model of patient satisfaction as a whole, was used to conceive and operationalize the construct of patient satisfaction based on the aforementioned rationale. Despite its accuracy and utility, literature research indicated that no previous studies on hospitalization service provision in private hospitals have employed a national satisfaction index model as the framework.

The MCSI model was developed as a national economic indicator of customer evaluation of the service quality. According to the MCSI model, customer satisfaction has three determinants, namely, perceived quality, perceived value, and customer expectations. However, customer expectation was not adopted in this present study based on the argument of Taylor and Cronin (1994) that it failed to exhibit a consistent significant direct relationship with patient satisfaction in quite a number of related past studies. Perceived quality (conceptualized as hospitalization quality in this study) is regarded as the main determinant of customer (patient) satisfaction. Hospitalization quality, which was operationalized as the patient's evaluation of their hospitalization experience starting from admission until their discharge, is expected to have a direct impact on the overall customer satisfaction (Fornell et al., 1996; Sumaedi et al., 2016). In the present study, hospitalization quality indicators were analyzed to identify the underlying dimensions or domains. By using the domains as the individual determinants, this study aimed to identify the specific quality domains that the management should improve upon, maintain, or deprioritize as part of efforts to improve patient satisfaction.

The other important antecedent of customer satisfaction is perceived value, which must be examined alongside perceived quality to assess the overall impact on customer satisfaction. According to Zeithaml (1988), value is a customer's total assessment of the utility of a product or service offering based on perceptions of what is offered (benefits) and what is received (benefits) (price). However, in the context of hospitalization services, defining perceived value only on the trade-off between benefits and price is insufficient conceptually because the benefits (health improvement), as well as the price itself, may be dependent on the length of hospital stay. As a result, while operationalizing perceived value in the context of inpatient experience, the effect of the length of stay should also be considered. Aside from that, private hospitals have been criticized for being more concerned with making a profit than with providing high-quality medical care at affordable pricing. As a result, the effect of perceived ulterior purpose was also considered in the operationalization of perceived value in the current study.

As a result of consumer happiness, the MCSI framework has identified two variables: brand image and customer loyalty. In this study, the brand image refers to the set of associations associated with a brand in a patient's memory, which shows how the hospital is seen as a brand by patients and is important in distinguishing its services from those of competitors. One of the most crucial variables in the hospital selection decision-making process is brand image or reputation. While patient satisfaction is the immediate aim, patient loyalty

is regarded as the ultimate aim of the whole patient-centric marketing efforts pursued by the hospitals. Past studies have provided an abundance of empirical evidence in supports of the strong relationship between customer satisfaction and customer loyalty (Dam & Dam, 2021).

Aside from the previous two factors, the current study adds a third consequence variable called word-of-mouth (WOM) intention to the model. WOM intention is defined as a patient's attitude or likelihood of recommending a product or service to others. In the decision-making process for healthcare services, a personal referral is regarded as the most powerful source of information. According to Dam (2020), people in today's world pay very little attention to advertisements in the conventional media. This is mainly due to the intangible nature of the medical service offerings that rely very much on the trust of the service providers. Thus, in the context of healthcare service provision, it is regarded as important to extend the MCSI model by integrating the "WOM intention" as one of the outcomes variables of patient satisfaction. Furthermore, service organizations across industries are already measuring WOM intention through a separate survey technique known as Net Promoter Score (NPS), a statistic proposed by Reichheld (2004). Figure 1 depicts the current study's conceptual framework, which is based on the MCSI model.

IP matrix analysis is a useful managerial tool that builds on the extension of PLS-SEM estimates of the

path analyses by adding an additional dimension namely "performance" based on the mean values of the latent variables (Hair et al., 2021). The matrix contrasts the importance (structural model total effects) and the performance (latent variable's mean values) to highlight important areas for managerial actions or improvement. In the context of the present study, the matrix analysis allowed for prioritizing the antecedent variables to improve patient satisfaction. Specifically, the management should be able to identify the determinants of patient satisfaction that need to be improved as well as those that are consuming way too much resources. Importance and performance ratings are displayed on a two-dimensional grid, and fall into one of the following four quadrants:

1. "Keep up the good work"
Determinants or variables falling in this quadrant are not only important but are also exhibiting good performance. They need to be maintained or improved as they are the main sources of competitive advantage or the unique selling proposition.
2. "Possible overkill"
Variables positioned in this quadrant are showing high performance but are not important enough. Strategies to improve on their important aspects can possibly turn them into the "Keep up the good work." quadrant.

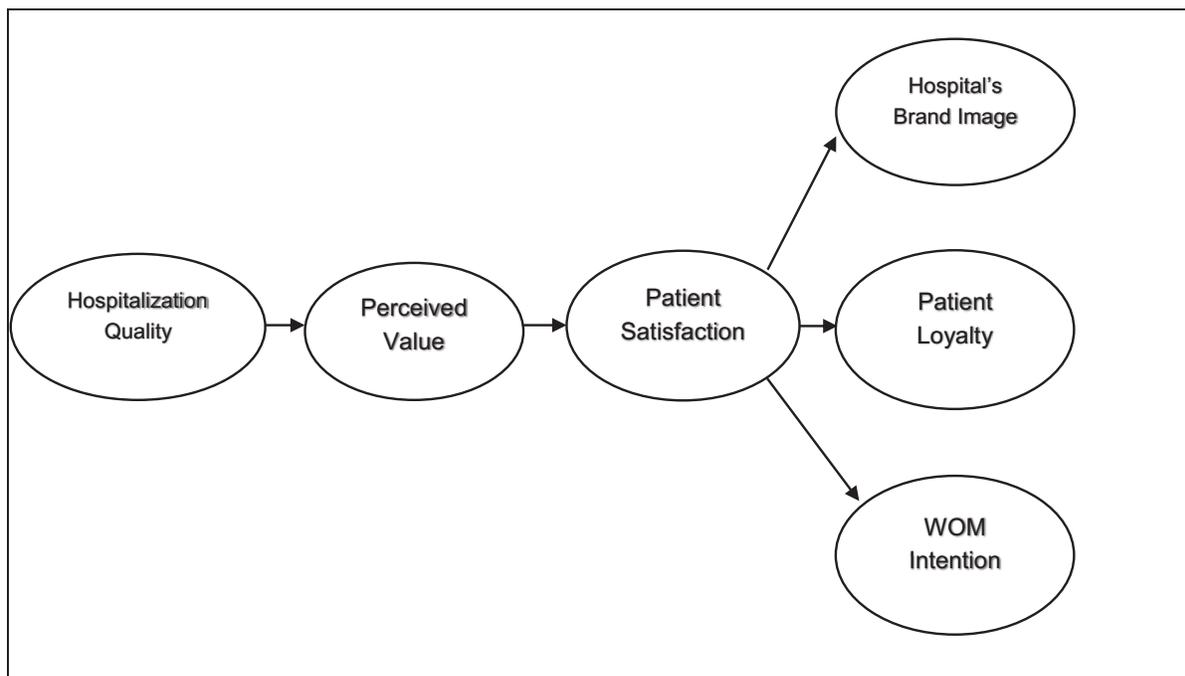


Figure 1: Conceptual Model of Patient Satisfaction with Hospitalization Services

3. “Low priority”
 Variables categorized under this quadrant should not be the main concern of the management as improving these variables only produce marginal effects on patient satisfaction.
4. “Concentrate here”
 Variables falling in this quadrant are of above-average importance but below-average performance. To improve patient satisfaction significantly, most efforts and resources should be allocated to these determinants.

The upward 45° diagonal line essentially identifies the management priorities. Determinants located on the line imply that importance equals performance, while determinants above the line indicate that performance fails to meet importance and, therefore, require further improvement.

3. Methodology

Ex-patients of private hospitals who had been admitted for at least three days in the year 2020 were the subjects of this study. In 2020, the respondents needed to be at least 18 years old. To access the required information from the linked health authority’s database of patient basic profiles, formal permission and ethical clearance was sought. A total of 411 ex-patients qualified as respondents based on purposive sampling. Only 254 of the 411 ex-patients agreed to participate. The data collection took almost four months to complete. To avoid physical interaction during the outbreak, all data was obtained via an online survey. The survey was completed by all 254 respondents, with the exception of 12 who were eliminated owing to incomplete questionnaires and outliers. As a result, only 242 people (or 95% of the total) were included in the analysis.

The variables in this study were mostly generated using the MCSI questionnaire design as a guide. All other latent variables were studied as reflecting measures, whereas the perceived quality (hospitalization quality) was treated as a formative measure. One of the study’s main contributions is that the variables for measuring hospitalization quality were systematically developed based on industrial instruments such as the Picker Institute’s eight domains of Person-Centered Care, CAHPS Hospital Survey, MSQH Hospital Accreditation Standards, and JCI accreditation standards, as well as past measures published in scholarly journals. In-depth interviews of 14 respondents were also conducted to generate new contextual items with regard to hospitalization experiences in a private hospital setting.

To examine the content authenticity, a panel of three experts in the field of services marketing was assembled. To fine-tune the questionnaire, a pre-test and a pilot test

were conducted. After conducting in-depth interviews, reviewing related literature, and determining content validity, a total of 32 items were created. After that, a thematic analysis was used to identify domains connected to hospitalisation quality (Forman & Damschroder, 2008). The following five unique hospitalization quality domains were discovered in the setting of a private hospital: Medical quality - “What” the patient actually receives from the hospital to solve their core problem or illness (Marley et al., 2004) - 6 items.

1. Service quality - “How” the service is delivered to the patients (Marley et al., 2004). It mainly covers the quality of the staff-patient interactions and communications, as well as service processes. - 14 items.
2. Outcome quality - Inpatients’ overall subjective evaluation of the outcome of the treatments and their recovery status (Rosenbusch et al., 2018). - 2 items.
3. Servicescape - Physical environment including ambient and tangible elements of the hospital stay experiences. - 7 items.
4. Right and privacy - Protection of patient’s privacy and right including the involvement in the decision-making process (Nuwagaba et al., 2021). - 3 items.

Perceived value was measured using three items, of which one item was borrowed from Fornell et al. (1996). The remaining two items were newly-developed contextual items based on in-depth interviews and a review of related literature. The borrowed item is related to the perception of the difference between the price and benefits of hospitalization. The new items were related to the ratings of the perceived benefits obtained given the length of hospital stay as well as the perception of the extent to which the service offerings were affected by the ulterior profit motive. The development of new measures of perceived value is undoubtedly one of the main methodological contributions of the present study. The measurement of patient satisfaction consists of three items which were also adapted from Fornell et al. (1996). The scale included measurement of patient satisfaction level as a whole, a disconfirmation of expectations, and a disconfirmation of ideal hospitalization experience.

Patient loyalty was operationalized using two items modified from Meesala and Paul (2018). It basically gauges the extent to which patients would choose the same hospital for their future healthcare needs regardless of the offer of more attractive deals from other hospitals. Three items were adapted from Roshnee (2008) to measure the hospital’s sincerity, reputation, and image at large. WOM intention was measured the hospital’s brand image which essentially determine using two items adapted from

Maisam and Mahsa (2016), which measure the extent to which patients would talk positively and recommend the hospital to other people. The measures for all variables are presented in Table 1.

To avoid the issue of negative skewness of distribution and to allow respondents to make better discriminations, 10-point rating scales were employed for all measures, following the MCSI technique. The theoretical model's predictive potential was assessed using variance-based partial least square structural equation modeling (PLS-SEM), which included both measurement and structural models. Another reason PLS-SEM was used in this study was that it allowed for more advanced analysis, such as IP matrix analysis (Hair et al., 2021).

3.1. Patient Satisfaction Index

After the measures have been estimated and analyzed, the next step is to calculate the patient satisfaction index. The formula used to estimate this index is based on the methodology of the National Customer Satisfaction Index (Fornell et al., 1996) as follows:

$$\text{Satisfaction Index} = \frac{\sum_{i=1}^n w_i \bar{x}_i - \sum_{i=1}^n w_i}{9 \sum_{i=1}^n w_i} \times 100$$

The index has multivariable components that are measured by three weighted indicators inside the model. On a scale of 0 to 100, the index is reported.

The unstandardized weights of the manifest variables or markers of patient satisfaction are represented by W_i in the formula. In the present study, the indicators of patient satisfaction consisted of three items identified as overall satisfaction, disconfirmation of expectation, and disconfirmation of ideal hospitalisation experience. The unstandardized weights were derived from the determinant variables' unstandardized weights, with X_i denoting the PLS-SEM determinant variables' mean values. n is the number of the determinant variables involved. Values for the unstandardized weights are obtained from the loadings of factor analysis.

The index aids in identifying the factors that influence patient satisfaction and, if changed, have the greatest impact on brand image, patient loyalty, and WOM intention. To make the general interpretation of the index value easier, Fornell et al. (1996) did not categorize it. As a result, the current study provided an index classification scheme for interpreting the index value, which was built based on how prior customer satisfaction studies in the service context described the generated indices. The categorization scheme is considered suitable and relevant for describing the level of customer satisfaction in the context of service provision, particularly in a developing country setting such as Malaysia. The index categorization scheme below is also considered as one of the methodological contributions of the present study:

1. An index value of 80–100: “very satisfied”
2. An index value of 70–79.9: “satisfied”
3. An index value of 60–69.9: “moderately satisfied”
4. An index value of 50–59.9: “dissatisfied”
5. An index value of below 50: “very dissatisfied”

Table 1: Measurements

Variables	Items
Perceived Value	1. How do you rate the total price you paid given the overall benefits you received from the hospital? 2. How do you rate the overall benefits you received from the treatments given the length of hospital stay involved at the hospital? 3. To what extent are you satisfied that there is no ulterior profit motive involved in the provision of service offered by the hospital?
Patient Satisfaction	1. How did you feel about the admission to the hospital as a whole? 2. To what extent the hospital fulfilled your expectations? 3. Imagine a hospitalization experience that is perfect in every aspect. How close to this ideal do you think your admission to the hospital was?
Patient Loyalty	1. I will return to the hospital for my future healthcare service if any 2. I choose the hospital despite other hospital's deals
Hospital's Brand Image	1. The hospital has a good reputation 2. The hospital has a positive image in my mind 3. The hospital is sincere to its patients
WoM Intention	1. I will recommend the hospital to my family and friends 2. I will talk positively about the service of the hospital to other people

3.2. Importance-Performance (IP) Matrix Analysis

The structural model's PLS-SEM analysis aids in determining the relative "importance" of the factors of patient satisfaction. The overall effects of the determinant on patient satisfaction must be calculated to determine the important value of the determinants. According to Hair et al. (2021), the total effects generated from a PLS route estimation are the sum of the structural model's direct and indirect effects. After that, double and add the estimated value of all indirect interactions involved to the estimated value of the direct relationship between the determinant and patient satisfaction. The importance of the medical quality domain, for example, is computed as follows:

$$\text{Total effects of Medical Quality} = \text{direct effect of Medical Quality on Patient Satisfaction} + (\text{direct effect of Medical Quality on Perceived Value} \times \text{direct effect of Perceived Value on Patient Satisfaction})$$

The determinant's "performance" value, on the other hand, necessitates rescaling the mean score of the determinant's perception to a range of 0 to 100. (Hair et al. 2021). Because all of the determinants were measured on a 10-point scale in this study, the value of the performance was calculated by multiplying the mean scores by 10.

4. Results

4.1. Measurement Model of PLS-SEM

All five domains of hospitalization quality were considered formative latent variables that represented hospitalization quality. Collinearity was not an issue in the formative measurement approach, as the VIF for the relationships between the variables was less than 10. (Hair et al., 2021). To assess the significance or relevance of the indicators, those with nonsignificant outer weights are recommended to be discarded. Hair et al. (2021) suggested that if an indicator's outer weight is insignificant but the outer loading is considerable, it should be kept (above 0.5). Table 2 summarizes the finalized measure of hospitalization quality comprised of 20 items or indicators.

According to Hair et al. (2021), when the composite reliability (CR) and Cronbach alpha (CA) of each variable are both at least 0.7, the measurement model for reflective constructs is judged to have appropriate internal consistency. The levels of both indicators for all reflective constructs were greater than the threshold values, according to the findings of this study. The results showed that the values of all outer

loadings, as well as the AVE for all variables, were greater than 0.5, indicating convergent validity (Hair et al., 2021). The results also showed that there was adequate discriminant validity as the square roots of AVE (diagonal) were higher than the correlations (off-diagonal) for all the reflective constructs (Fornell et al., 1996).

4.2. Structural Model of PLS-SEM and Path Analyses

After the properties of the measurement model had been established, the structural model was evaluated. *R*-square, *F*-square, *Q*-square, and path coefficient were the four key criteria employed in the evaluation. The *R*-square number effectively indicates the amount of variance explained by all of the hypothesized exogenous constructs in the endogenous constructs. With the exception of patient satisfaction, the *R*-square values suggested largely moderate impact sizes, according to the findings of this study. The results indicated that 78 percent of the observed variation in patient satisfaction could be explained by the five hospitalization quality domains and perceived value. This substantial effect size showed the efficacy of the proposed quality domains and perceived value as the important determinants of patient satisfaction.

To determine the relative impact of a predictive construct on an endogenous construct, the *F*-square is used. The *F*-square values of 0.35, 0.15, and 0.02 were proposed by the study to reflect high, medium, and minor effect sizes, respectively. The majority of the effect sizes in this study were in the medium range, according to the data. Finally, the magnitude of *R*-square as a predictive accuracy criterion was measured using the *Q*-square value. Because the *Q*-square values for all five primary constructs were greater than zero, the results indicated that predictive relevance had been effectively reached.

The purpose of path analysis is to find the estimated beta coefficient values that will be used to calculate "importance" in IP analyses. Path analysis revealed that, with the exception of servicescape, all hospitalisation quality dimensions have a strong significant influence on patient satisfaction. The path analyses also found that, with the exception of right and privacy, all hospitalization quality domains were strongly associated with perceived value. The perceived value of hospitalization services was most strongly influenced by the service quality domain. The results also provide strong empirical evidence to support the positive effects of patient satisfaction on all three consequences variables. Patient satisfaction had the strongest consequences on the brand image of the hospital.

4.3. Patient Satisfaction Index of Hospitalization Services in Private Hospital Setting

The patient satisfaction index for hospitalization services in private hospitals is 76.9, according to the methodology provided by Fornell et al. (1996). (Table 3). This value is satisfactory according to the index categorization method devised specifically for the purposes of this investigation. To put it another way, it means that patients are “content” with their overall

inpatient experience. Because the value is slightly lower than the “very satisfied” group, efforts and methods to increase overall patient satisfaction in the private hospital setting are still needed.

4.4. Importance-Performance (IP) Matrix

The relevance, as well as performance values for the five hospitalization quality domains as well as perceived value, are provided in Table 4 based on the methods

Table 2: Significance and Relevance of Hospitalization Quality Domain

Constructs	Indicator	Outer Weight	Outer Load.	VIF	t-value Weight	Sig
Medical Quality	Choice of Physician	0.025	0.564	1.678	0.173	0.73
	Medical Diagnosis and treatment	0.475	0.821	1.487	8.173	0.000***
	Doctor’s Expertise	0.218	0.623	1.722	3.767	0.002***
	Nurse’s Competency	0.529	0.854	1.677	7.238	0.000***
Service Quality	Responsiveness of the staffs	0.124	0.777	2.392	1.666	0.112
	Personal manners of staff	0.101	0.692	1.913	1.888	0.061*
	Professionalism of medical consultations	0.217	0.777	2.447	2.931	0.003**
	Clear explanation of all treatments, medications and its implications	0.188	0.721	1.932	2.913	0.003**
	Timeliness of the treatments	0.231	0.723	2.318	2.991	0.002**
	Efficiency of admission process	0.223	0.734	2.055	3.046	0.002**
	Efficiency of discharge process	0.271	0.834	2.223	3.304	0.001**
Rights and Privacy	Protection of rights and privacy	0.710	0.844	1.157	19.705	0.000***
	Involvement of patient in decision-making	0.503	0.762	1.161	12.665	0.000***
Servicescape	Up-to-date equipment	0.178	0.818	2.571	2.664	0.007**
	Furnishing and appearance of the patient’ room and hospital as a whole	0.027	0.766	2.421	0.302	0.762
	Entertainments offered in the hospital	0.387	0.911	2.721	5.122	0.000***
	Quality and variety of food served	0.223	0.455	2.321	2.741	0.003**
	Appearance of staffs	0.317	0.815	2.143	4.847	0.000***
Outcome Quality	Health improvement upon discharge	0.542	0.897	1.598	9.978	0.000***
	Total health restoration after hospitalization at the hospital	0.544	0.925	1.587	10.823	0.000***

Note: *p-value < 0.1; **p-value < 0.05; ***p-value < 0.001.

Table 3: Patient Satisfaction Index

Indicators of Patient Satisfaction	Unstandardized Regression Weights (W_i)	Indicators Mean (X_i)	$\Sigma W_i * X_i$	ΣW_i	Index Value (1–100)
Overall satisfaction	0.723	7.90	16.55	2.09	76.9
Fulfilled expectations	0.682	7.59			
Ideals	0.734	8.24			

Table 4: Importance-Performance Analysis

Determinants	Importance (Beta Coeff)	Mean	Performance (Rescaled Mean Value) 0–100
Medical Quality	$0.221 + (0.271 \times 0.278) = 0.296$	7.874	79
Service Quality	$0.201 + (0.288 \times 0.278) = 0.281$	7.754	77
Servicescape	$0.077 + (0.131 \times 0.278) = 0.113$	7.805	78
Rights & Safety	$0.280 + (0.090 \times 0.278) = 0.305$	7.638	76
Outcome Quality	$0.324 + (0.268 \times 0.278) = 0.398$	7.746	77
Perceived Value	0.278	7.566	76
Mean	$1.671/6 = 0.278$		$463/6 = 77.2$

proposed by Hair et al. (2021). The significance of the determinants is represented by the overall effects (direct and indirect) of the determinants on patient satisfaction, as mentioned in the methodology section, whilst the performance of the determinants is represented by the rescaled mean score of the determinants.

The resulting IP Matrix is as presented in Figure 2. The four-quadrant was segmented by the two axes based on the overall mean of importance (0.278) and performance (77.2) of the six determinants. Three of the quality domains namely outcome quality, right and privacy, and service quality fall inside the “Concentrate here” quadrant. The medical quality domain is categorized as “Keep up the good work” while servicescape falls inside the “Possible overkill” quadrant. Interestingly, the matrix also showed that none of the quality domains is positioned under the “Low priority” quadrant.

5. Discussion

5.1. Patient Satisfaction Index

In the present study, the patient satisfaction index of hospitalization services in the private hospital setting was 76.9 and categorized as “satisfied.” The value is not much different from the previous index reported from other countries. For example, in 2020, the National Customer Satisfaction Index of hospitals in South Korea and South Africa were 79.5 and 76.1, respectively. In Singapore, the corresponding index in 2019 was 72.7, as documented by the Institute of Service Excellence at the Singapore Management University.

The value of 76.9 highlights the private healthcare sector’s strengths in 2020, notably in Malaysia. The actual value is projected to be higher, and if not for the COVID-19 epidemic, it may have reached the “very satisfactory” level. Many nations, including Malaysia, have a two-tier healthcare system, with a public or

government-run healthcare system coexisting with a private healthcare system, with the latter playing a larger role in positioning a country as a top destination for medical tourism in the region. The concept of medical tourism is inextricably linked to hospitalization services, as the majority of the treatments involved necessitate a stay in a hospital. The index is considered to be rigorous as it takes into consideration not only the variance in patient satisfaction as explained by the determinants but also the consequences of customer satisfaction. As a result, the index included all latent variables such as patient satisfaction, brand image, brand loyalty, and word of mouth. Based on the foregoing, it can be stated that this index is extremely relevant and useful in the context of for-profit healthcare organizations. Private hospitals must assure patient satisfaction with their services because it will have a big impact on their brand image or reputation. A happy patient spreads the word about the hospital’s services and is unlikely to consider other facilities for future treatments if any are needed. Hospitals are able to compete in the industry because of customer satisfaction, but it is loyalty that leads to repeat business.

5.2. Importance-Performance (IP) Matrix Analysis

The IP Matrix or map (Figure 2) clearly shows that medical quality is the only quality domain that falls under the “Keep Up the Good Work” quadrant. Given the increasing competitiveness in the healthcare business, it is the hospital’s main strength that should not only be preserved but also given sustained investment. Apart from providing additional options in terms of doctor selection and medical treatments, the medical teams’ competencies must also be continually improved to raise patient confidence in the quality of care. To become a renowned healthcare center in the global marketplace, hospitals must continue to invest in both human resources and medical facilities.

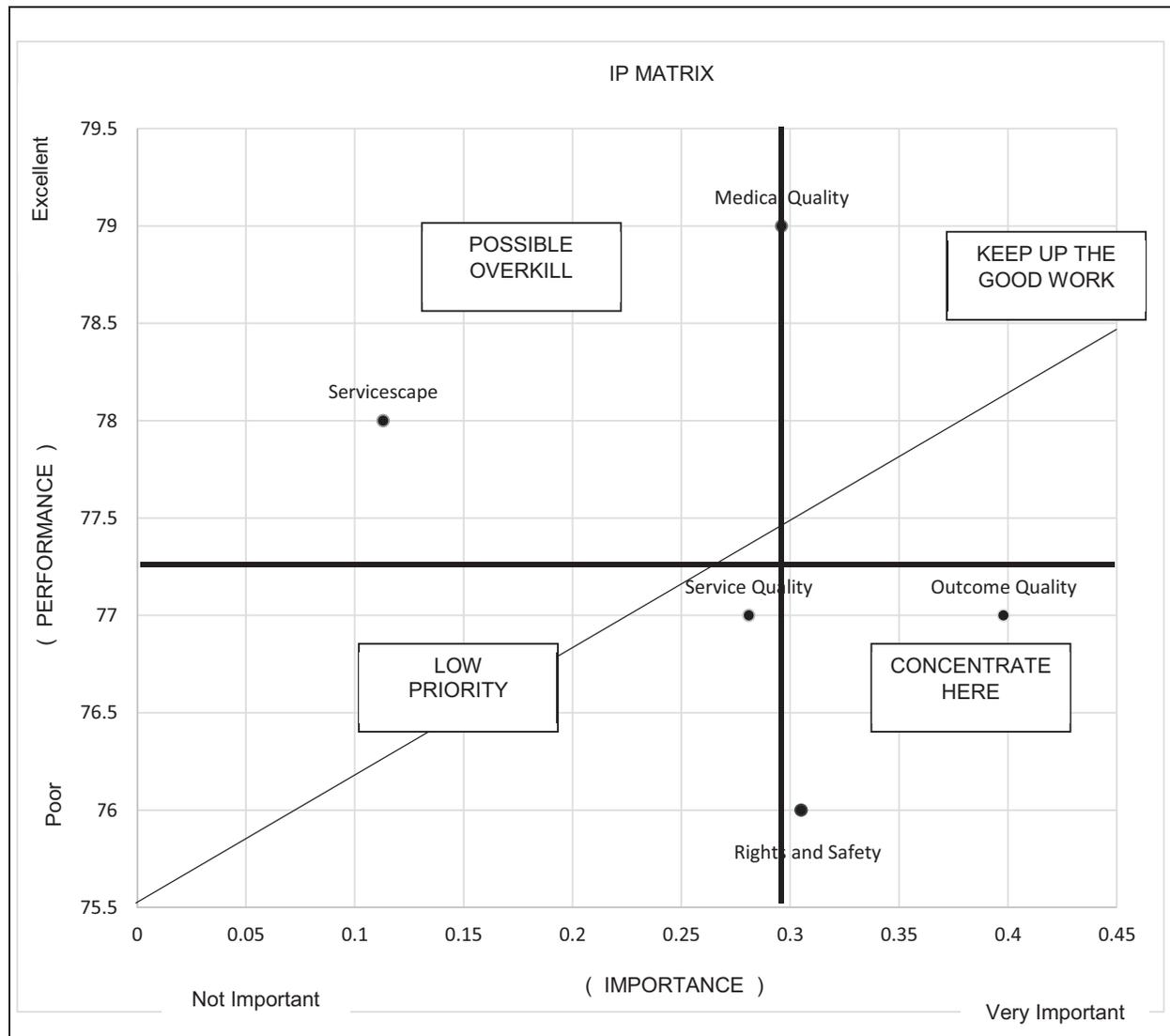


Figure 2: Importance-Performance (IP) Matrix

In the IP matrix, three of the hospitalization quality domains were positioned in the “Concentrate Here” quadrant, i.e., outcome quality, rights and safety, and service quality. All these three quality domains are considered to be underperforming and, as such, represent the main weaknesses and threats to service competitiveness. These domains should be accorded the highest priority in terms of investments to improve the patient satisfaction index. Both outcome quality and service quality have the same level of performance; however, since outcome quality is of much higher importance than service quality, the main priority should be accorded to outcome quality. Undeniably, the attainment of medical outcomes is the primary purpose of the whole hospitalization experience. All patients are

desirous of a remarkable improvement in their health status upon discharge from the hospital. Patients typically do not expect that their health status will be fully recovered upon discharge as complete health restoration requires an extended time period under home care after discharge. Therefore, it is important for the management to concentrate on developing a systematic discharge plan. Effective discharge planning and transitional care can dramatically improve patient outcomes and lower readmission rates.

Service quality is the domain that supposedly differentiates the service provider of private hospitals from that of their public hospital counterparts. Apart from the efficiency of the discharge as well as the admission process, hospital management needs to “concentrate” on the soft skills

of their medical personnel, including, personal manners, responsiveness, as well as communication skills. In this context, the healthcare industry particularly the private sector needs to establish the idea of having “Sales Doctors” (Paul, 2021) just like the concept of sales engineers in the context of manufacturing. Fundamentally, sales doctor is a service concept in which doctors are expected to treat their patients as valuable customers, similar to how hotel management and receptionists treat their guests. The doctor must not only have the essential technical skills to treat patients, but also the value-added soft skills for a more effective engagement, to boost patient satisfaction with their hospital stay on a holistic level. Because of the lengthier interactions between the patient and the doctors, these personal qualities are substantially more crucial for hospitalized treatment (compared to outpatient services).

The IP matrix also revealed that the rights and privacy domain is slightly more important than service quality, but that its performance is far lower. One of the key areas of requirements that hospitals must meet to be accredited in the healthcare industry is patient rights and ethics. As a result, authorized hospitals are required to create a charter for patient rights to establish patient rights and promote ethical aspects of healthcare service provision. As the promises of the charter are widely communicated to the patients, it increases the expectation levels and makes it difficult to satisfy the patients. The present study found that the involvement of patients in the decision-making is one of the most important rights of patients that need to be promoted. Unfortunately, the aspect of shared decision-making is not covered in the patient rights charters of most hospitals. Apart from establishing a charter for patients’ rights, having a “client’s charter” or “customer services charter” is deemed to be critically more important. A customer service charter outlines how a hospital promises to service or treat its patients along with providing insights into how it operates.

Figure 2 indicates that the only domain that falls under the “Possible Overkill” quadrant is servicescape. This quality domain is of low importance to patients but is performing strongly, indicating possible waste of resources that are inefficiently utilized and could be reallocated elsewhere. This suggests that no further investment is required to increase the performance of the domains. However, this particular issue needs to be interpreted with caution. Because the data suggest that the servicescape domain is performing exceptionally well, it has the potential to become a competitive advantage. In the global healthcare marketplace, the combination of the medical quality domain and the hospital’s particular servicescape would almost surely result in a highly marketable inpatient experience. The matrix also reveals that none of the investigated hospitalization quality areas fall into the “Low Priority” quadrant, indicating that management need not be excessively concerned.

6. Conclusion

The Malaysian Customer Satisfaction Index Model was used as the framework for measuring patient satisfaction with hospitalisation services in private hospitals in this study. There is currently very little information available about the quality of inpatient experiences and how they affect patient satisfaction. Medical quality, result quality, rights and privacy, service quality, and servicescape were proposed as five dimensions of hospitalization quality based on this study. Fornell et al. (1996) established a mechanism for calculating the patient satisfaction index (1996). It’s a comprehensive index that looks at both the backward (determinants) and forward (consequences) effects of satisfaction. This study’s index value was 76.9, which was classified as “satisfied.” The result was comparable to hospital indices from other countries, such as South Korea and Singapore. It is not difficult for the index to reach the “very satisfied” level in the near future with a little more work and well-executed action plans. Malaysia might then be positioned as one of the leading medical tourism destinations.

The IP matrix analysis was used to better identify the quality domains that needed greater attention to improving patient satisfaction. Outcome quality, rights and privacy, and service quality are the three quality categories that should be focused on during hospitalization. All three domains were located within the “concentrate here” quadrant. The development of a more effective discharge plan, the development of a customer service charter, and the adoption of the concept of “sales doctors” are all part of the approach for tackling the above three categories. The matrix also highlighted that the quality of medical care provided by Malaysian private hospitals is a competitive advantage that must be maintained due to the increasingly competitive nature of the healthcare business. Interestingly, while being in the “possible overkill” quadrant, the servicescape domain has the potential to be the second competitive advantage due to its perceived high-end performance.

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