RELATIONSHIP BETWEEN RATER AND CUSTOMER LOYALTY: CUSTOMER SATISFACTION AS MEDIATOR, INCOME AND EDUCATION AS MODERATORS IN PRIVATE HOSPITALS IN MALAYSIA

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ABSTRACT

Service quality is the key to gaining a competitive advantage, thus leading to a substantially reputable organization. The relationship of service quality with customer satisfaction and customer loyalty is the phenomenon of interest in this study because of the importance of retaining customers in comparison to gaining new ones. The purpose of the present study is to understand the relationship between service quality dimensions (RATER) and customer loyalty of the private healthcare industry in Malaysia, and examine the role of customer satisfaction as a mediator in the relationship between RATER and customer loyalty. Further, the moderating effect of education and income of private healthcare customers on the relationship between customer satisfaction and loyalty is examined.

The present research adopted a positivism paradigm, applying a cross-sectional quantitative research methodology to gain insight from private healthcare customers of various education and income levels. The sampling frame of this study was 10 private hospitals in Malaysia selected from 137 private hospitals registered under the Association of Private Hospitals of Malaysia (APHM) using the random-lottery method sampling technique. 419 customers of private hospitals were surveyed on service quality, customer satisfaction and customer loyalty. Prior to data collection, a pilot study was conducted to test the questionnaire developed for its validity and reliability even though the items used are well-established. Descriptive and inference analyses were carried out using SPSS version 23 and Variance based PLS-SEM in ADANCO 2.1 to run the analyses. The reliability and validity of the items used to address the hypotheses postulated for the present study were tested using exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

SEM outcome resulted in 9 out of 14 hypotheses supported. The results indicate that customer satisfaction is influenced by all five dimensions of service quality, whereas customer loyalty is influenced only by service responsiveness and service empathy. The research found customer satisfaction is not a mediator between service quality and customer loyalty. The result also indicated that the income level of private healthcare customers does not moderate the relationship between satisfaction and loyalty; however, the customers' education status did. These findings will allow managers and marketers to embark on strategies relevant to service quality dimensions to promote satisfaction and loyalty and noted education is crucial in converting satisfied customers into loyal customers. The current study suggests marketers improve on creating awareness of the RATER related services in their establishment.

Keywords: Service Quality Dimensions (RATER), Customer Loyalty, Customer Satisfaction, Income, Education, Private healthcare

APPROVAL PAGE

I certify that I have supervised read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in quality and scope, as a thesis for the fulfilment of the requirements for the degree of Doctor of Business Administration.

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DECLARATION

I hereby declare that the thesis submitted in fulfilment of the PhD degree is my own work and that all contributions from any other persons or sources are properly and duly cited. I further declare that the material has not been submitted either in whole or in part, for a degree at this or any other university. In making this declaration, I understand and acknowledge any breaches in this declaration constitute academic misconduct, which may result in my expulsion from the programme and/or exclusion from the award of the degree.

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May God’s blessings be with you always!

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LIST OF ABBREVIATIONS

GDP	Gross Domestic Product
MHTC	Malaysian Healthcare Travel Council
OOP	Out of Own Pocket
PEMANDU	Performance Management and Delivery Unit
RATER	Service Quality Dimensions (Responsiveness, Assurance, Tangibility, Empathy and Reliability)
SERVQUAL	Multi-dimensional Research Instrument
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
SEM	Structural Equation Modeling
SPSS	Statistical Package for the Social Sciences
TQM	Total Quality Management
GNP	Gross National Product
OECD	Organisation for Economic Co-operation and Development
ASEAN	Association of Southeast Asian Nations
GP	General Practitioner
TPA	Theory of Planned Behaviour Action
TRA	Theory of Reasoned Action
TPB	Theory of Planned Behaviour
PBC	Perceived Behaviour Control
DOSM	Department of Statistics Malaysia
CR	Composite Reliability
AVE	Average Variance Extracted

RQ	Research Question
GST	Goods and Service Tax
SRP	Service Responsiveness
SA	Service Assurance
ST	Service Tangibility
SE	Service Empathy
SR	Service Reliability
CS	Customer Satisfaction
CL	Customer Loyalty

CHAPTER 1.0 INTRODUCTION

The service sector contributes about 60% of the gross domestic product (GDP) worldwide (Central Intelligence Agency, 2017; Lovelock & Wirtz, 2005). The booming economy of the service industry, such as healthcare, education and banking has resulted in increasing competition in the market. However, customer demand has also concurrently increased as technology advancement has enabled them to seek information, make comparison in terms of what they are receiving and demand better services (Bezerra & Gomes, 2016; Atilgan, Akinci, & Aksay, 2003). Furthermore, now customers are able to use social media to share their experiences, forcing service providers to be on their toes at all times (Bezerra & Gomes, 2016; Amorim & Saghezchi, 2014). Therefore, it becomes a necessity to differentiate the services offered by being more efficient and innovative. One innovative area of improvement is service quality. In order to stay competitive, emphasis is given to improving service quality (Ou, Shih, Chen & Wang, 2011; Seth, Desmukh, & Vrat, 2005). The healthcare industry in Malaysia has proliferated over the last decade. This is clearly manifested in the private healthcare sector; however private hospitals in Malaysia are predominantly in the Klang Valley and the main cities such as Penang and Johor Bharu where customers are more demanding with regards to service quality (Malaysian National Health Account, 2016; Teo, 2013). Furthermore, the growing middle to high-income population in Malaysia aspire better living conditions that include quality of healthcare.

Countries worldwide are also experiencing higher per capita spending on healthcare as compared to the increase in per capita income (Hameed, Rasiah & Shukor, 2018). The escalating cost of private healthcare is a source of various concerns. However, this expenditure has to be borne by individuals out of their own pocket (OOP). The Malaysian National Health Accounts (2016) shows that private healthcare expenditure reached

RM23,918 million in 2014 and is expected to grow at 18 - 20% a year (Hameed, Rasiah & Shukor, 2018). Therefore, the current expenditure would have reached a whopping RM46, 600 million in 2018. The Malaysian National Health Accounts (2016) also indicates that about 40% of the total health expenditure is via OOP. With such large amount of money spent on private healthcare, it is inevitable that patients or customers of private healthcare have high expectations. Moreover, the customer-based decision-making and involvement in healthcare choices are growing exponentially due to the expected amount of money spent, affordability and more importantly the knowledge one has access to on information related to hospitals, medical care and treatment (Thomas, Beh, & Nordin, 2011; Corbin, Kelley, & Schwartz, 2001). Health economic analysts predict a shift in higher spending for a myriad of healthcare related services such as diagnosing and monitoring health rather than those involving treatment (Hameed et al., 2017). This further implies that medical cost is broken down to various stages as such customer's choice of a healthcare institution may be dependent on the stage one requires. Healthcare services have evolved from traditional illness services towards wellness concepts (Thomas, Beh, & Nordin, 2011). Therefore, there is a need to understand the impact of the changing healthcare service on customer's choice of a healthcare institution. Furthermore, there is a transformation of healthcare from an industrial age medicine to information age medicine, leading to the expansion of medical tourism in Malaysia (Amar, 2004). It is also crucial to understand the healthcare system as an evolving system. Its integral changes related to lifestyle and preventive measure is the future of healthcare. Besides driving the growth of this industry, this medical revolution will affect medical tourism and its contribution to healthcare revenue. This compels private hospitals to re-evaluate their management system and explore critical components of their value chain such as service quality, customer satisfaction and loyalty. Malaysia is considered

as a medical hub for the ASEAN region. The Malaysian government has listed medical tourism and its revenue as essential for the country's economy as such efforts are being made towards modernising private hospitals to attract foreign travellers.

Furthermore, Malaysian Healthcare Travel Council (MHTC) is targeting 30% increase in the percentage of medical tourists visiting Malaysia in future (MHTC, no date [n.d.]). This has propelled private hospitals to initiate measures that would improve their capacity and service quality enabling them to join in the country's medical tourism initiative under the government's transformation programme. This programme, by Performance Management and Delivery Unit (PEMANDU) was formed to underpin Malaysia's efforts to become a developed, high-income nation by 2020 (Center for Public Impact, 2016).

In the meantime, there is an increasing demand for treatments and "destination" choice in medical travel. "Destination" refers to a physical location where the medical tourist spends at least one night. Besides providing medical treatment, this destination has tourist attractions, products, and other related services that are necessary to meet the stay of a tourist in the place for at least one day (Carter & Fabricius, 2007). According to the Medical Tourism Association Report 2013, medical travel contributes a GDP value of over USD 45 to 95 billion globally. Asia is said to be the leading region for medical travel (Medical Tourism Association, n.d.). Thus requiring private hospitals to take serious measures in improving their capacity in terms of resources and service quality. Furthermore, Sarwar (2013) proclaims that service quality significantly influences medical tourists' selection of the destination for medical care. Hence for Malaysia to be the preferred medical tourism destination, private hospitals will need to incessantly improve and sustain their service quality.

Improvisation of quality through various methods such as new and clean structures and easy and simple processes lead to reduction of waste that transcend to better cost management. Besides, quality improvement concomitantly lessens rework and delays that can burden employees and irritate customers. Subsequently, proliferations of market share and positive image can be experienced (Till & Nowak, 2000) and eventually, these interrelated conceptions increase the brand value, a sought after position by private hospitals (Sudin, 2011; Nasution & Mavondo, 2005; Zeithaml, 2000).

Academic and non-academic research assent the influence of service quality on critical business elements specifically customer satisfaction, positive word-of-mouth, revisits and repurchase (Berry, 2016; Seth et al., 2005; Meyer, Silow-Carroll, Kutyla, Stepnick, & Rybowski, 2004; Sureshchander, Rajendran, & Anantharam, 2002; Newman, 2001; Lasser, Manolis, & Winsor, 2000; Gummesson, 1998; Zeithaml, Berry, & Parasuraman, 1996). Further association of these elements has drawn many researchers to brand loyalty, image, reputation and equity (Kotler, Keller, Brady, Goodman, & Hansen, 2016; Hosseini & Moezzi, 2015; Takahashi, 2014; Butt & de Run, 2009; Caruana, 2002; Fullerton & Taylor, 2002).

While businesses are intensely in need of significantly improving the above-mentioned business elements via internal convalescences, it is important to bear in mind that customer behaviour is also highly dependent on their socio-demographics. Customer demographics such as personal income, education and gender play a significant role in determining perception (Kotler et al., 2016; Serenko, Turel, & Yol, 2006; Kim, Park, & Jeong, 2004). Customer demographics are commonly used to determine target market and to profile current customers. Past research on customer satisfaction predominantly examine if there is a difference between profiles in relation to their satisfaction (Rizwan et al., 2013; Bigné, Andreu, & Gnoth, 2005; McColl-Kennedy, Daus, & Sparks, 2003;

Mittal & Kamakura, 2001). For instance, it can be hypothesised that male and female have significantly different perceptions. However, there is insufficient understanding of the role played by these profiles in the relationships between a myriad of business concepts. Some studies indicate socio-demographics such as income moderate the relationship between the antecedent and its consequences (Rizwan et al., 2013; Bigné et al., 2005). In some instances, past studies show that customers' income level directly influences purchasing decision and loyalty (Sudin, 2011; Nasution & Mavondo, 2005; Homburg & Giering, 2001). This outcome is commonly interpreted as those with higher income can make quick decision to purchase better quality products or service or those that offer value for money (Homburg & Giering, 2001). Besides, those with high income tend to be educated and have the affinity towards purchasing quality services and products (Kotler & Armstrong, 2010; Kent & Omar, 2003). If these socio-demographics of customers were inclined to have different notions in purchase intention and decision, it would be interesting to comprehend the role played by these socio-demographics in ensuring one concept to behave in such a way so as to achieve the ultimatum.

Therefore, the current research addressed the research gap in understanding the intervening role of customer satisfaction in the relationship between service quality and customer loyalty. It further empirically examined the moderating effect of income and education of customers in transforming satisfied customers into loyal customers.

The vast majority of service quality research focus on service quality as a whole, though it can be measured with various dimensions such as responsiveness, assurance, reliability, tangibility and empathy. Both service quality and customer satisfaction play important roles in healthcare industry. The industry itself has little or no room for error as it involves human life. Thus, quality of service of each five dimension is pertinent.

There is lack of consensus in the relationship between service quality and customer satisfaction, whereby some studies view customer satisfaction as antecedent to perceived quality (Aliman & Mohamad, 2013; Bitner & Hubbert 1994; Bolton & Drew, 1991a; Parasuraman, Zeithaml, & Berry, 1988) whilst others use service quality as antecedent for satisfaction (Aljaberi, Juni, Al-Maqtari, Saeed, Al-Dubai & Shahar, 2018; Saravanan & Rao, 2007; Lee, Lee, & Yoo, 2000; Bloemer, De Ruyter, & Peeters, 1998). However, the mediating role of customer satisfaction in healthcare service quality is not well established.

As such, the current study aimed to examine the impact of service quality dimensions on customer satisfaction and customer loyalty in private healthcare in Malaysia. This study will establish the relationship between service quality and customer satisfaction and loyalty using theories and scales established by Parasuraman et al. (1988) and verified by others (Marković, Lončarić, & Lončarić, 2014; Aliman & Mohamad, 2013; Lei & Jolibert, 2012; Liu, Guo, & Lee, 2011; Alrubaiee & Al-Nazer, 2010; Walsh, Hennig-Thurau, Sassenberg, & Bornemann, 2010; Qin & Prybutok, 2009; Harris & Goode, 2004; Roberts, Varki, & Brodie, 2003; Butcher, Sparks, O'Callaghan, 2001; Oliver, 1997). The study further examines the intervening nature of customer satisfaction on the relationship between service quality and customer loyalty in the complex healthcare industry. The current study further examines income and education's role on the relationship between customer satisfaction and customer loyalty. For the purpose of this study, healthcare setting, healthcare establishment and hospital are interchangeably used. Besides, the current research also interchangeably uses the term "customers" and "patients".

1.1 Background of the Study

1.1.1 Healthcare Services in Malaysia

Malaysian healthcare system is reasonably developed and this service industry comprises both public and private sectors (Merican & bin Yon, 2002; Rohaizat & Abu, 2000). The public healthcare system is mainly subsidised by the government and is responsible in providing primary, secondary, and tertiary care throughout the country, especially to those needy at a minimal cost (Merican & bin Yon, 2002). On the contrary, private healthcare establishments are mainly located in the urban areas, catering service to an increasingly affluent patient population and are frequently equipped with the latest medical technology (Ministry of Health [MOH], 1997). Over the past few decades, there has been an increasing role played by the private sector in providing healthcare for Malaysians, complementing the Government's efforts in this regard (Rohaizat & Abu, 2000).

According to Malaysia's telemedicine Blueprint (MOH, 1997), the focus of future healthcare is on people and services using technology as the enabler to provide high quality healthcare service. Two decades since the blueprint, technology is seen playing an important role in every aspect of healthcare services. Technology's involvement in information dissemination and education of individuals supports the overall wellness paradigm (Merican, Rohaizat, & Haniza, 2004). Therefore, customers of healthcare settings are no longer seen as patients who are ill and need caring, instead they are customers who need to be educated about their health condition. Furthermore, customer demands and expectations with regards to medical care are also changing tremendously along with changing patterns of disease, customer demographics and standard of living (Binns & Boldy, 2003; Merican & bin Yon, 2002). This contributes to the rapid growth and improvements in the Malaysian healthcare system. The introduction of private clinics

with general practitioner who perform minor surgeries has been extended to private hospitals which provide hospitalisation, medical specialists, and major surgeries and in the recent years, health and wellness education (Merican et al., 2004). The shift in the healthcare model from industrial age medicine to information (wellness education) age healthcare in the last decade emphasises on preventive healthcare model. This change has resulted in empowering individuals, families and communities in managing their health well-being and enhanced quality of life (The Eight Malaysia Plan, 2001-2005). Over the years, Malaysia has been steadily competing and growing as a medical tourism hub amongst the Asian contenders. However, countries like Thailand and Indonesia are simultaneously developing in terms of economy, as such the growth in their private healthcare sector. With cheaper labour cost and large market size, these countries are becoming strong contenders in relation to medical tourism. Thus, it is crucial for the Malaysian private healthcare settings to be distinctively different in their offerings to remain competitive in the medical tourism sector. Improvements in service seem to be the most likely area where this distinction can be rendered (Martins & Ophillia, 2015; Lovelock, Wirtz, & Chew, 2009). Thus, improvements in service quality with better infrastructures, equipment, selfless medical professionals and support staff, facilitate the competitiveness (Atilgan et al., 2003). As medical tourism is a government initiative in the wake of private hospitals, government bodies' public relations and publicity campaigns such as "Malaysia loves you" promote service quality, accessibility, affordability and ease of communication that helps to attract both domestic and international medical care seekers.

1.1.2 Service Quality in the Private Healthcare Industry

Service quality is the key to gain competitive advantage, thus leading to a substantially reputable organization (Jain & Aggarwal, 2015; Al-Ibrahim, 2014; Calisir,

Bayraktaroglu, Gumussoy, & Kaya, 2014; Mortazavi, Kazemi, Shirazi, & Aziz-Abadi, 2009; Seth et al., 2005; Yang, Jun, & Peterson, 2004; Atilgan et al., 2003). Service quality is primarily measured using customers' expectations of the service and what is delivered (Parasuraman et al., 1988; Parasuraman, Valarie, & Berry, 1985). Therefore, improvement in the service process, people and physicality of the organization are key to enhance the service quality (Sreenivaas, Srinivasarao, & Rao, 2013).

Change in the customers' expectation and perception in terms of facilities, technologies and other business related factors have led to the parallel change in service quality models (Jain & Aggarwal, 2015). This is evident in the sequential and systematic development of a variety of service quality models from 1984 till 2019 (Setyawan, Supriyanto, Tunjungsari, Hanifaty, & Lestari, 2019; Annuar, & Jaffery, 2018; Sanjaya, & Yasa, 2018; Ahmed, Tarique, & Arif, 2017; Shabbir, & Malik, 2016; Juhana, D., Manik, Febrinella, & Sidharta, 2015; Dagger, Sweeney, & Johnson, 2007; Brady & Cronin, 2001; Levesque & McDougall, 1996; Rust & Oliver, 1994; Parasuraman et al., 1988; Grönroos, 1984). These developments are necessary in the evolving market in order to remain and sustain in this competitive world.

Therefore, service quality models remain ambiguous and persistently requiring modifications based on the industry and changing factors that affect the economy and customers. Although there are various service quality measurement models, the RATER (responsiveness, assurance, tangibility , empathy and reliability) is found to be more suitable for contemporary service quality and helps to measure the interaction between service provider and customers (Jain & Aggarwal, 2015). One of the predominantly used instruments for measuring SERVQUAL is RATER which suits a myriad of service industries such as healthcare, bank and telecommunication (Setyawan et al., 2019; Annuar, & Jaffery, 2018; Sanjaya, & Yasa, 2018; Ahmed, Tarique, & Arif, 2017; Shabbir,

& Malik, 2016; Juhana, D., Manik, Febrinella, & Sidharta, 2015; Jain & Aggarwal, 2015; Lee & Kim, 2012; Naik, Gantasala, & Prabhakar, 2010; Heung, Wong, & Qu, 2000).

Service quality is the cornerstone of marketing strategy, even though the increasing level of competition and changing environmental factors constantly change the content of the service quality dimensions (Karatepe, 2011; Lovelock et al., 2009; Asubonteng McCleary, & Swan, 1996). Quality is the predominant key to search for a reliable medical facility and this is followed by medical specialists such as cardiologist and oncologist and reconstructive surgeons. As the current use of Internet and mobile technology is increasing, it is becoming more imperative for private hospitals to be listed online and more importantly to be listed as a quality provider.

In order to gain competitive edge, it is critical to have reliable and valid measurements to assess the quality of the service especially in complex settings such as the healthcare industry. In healthcare services, overall service experiences such as the quality of technical equipment, modern surgical equipment, interpersonal skills of doctors, nurses and admin staff and amenities are commonly used to evaluate quality. In general terms these factors encompass five dimensions of RATER (responsiveness, assurance, tangible, empathy and reliability) introduced by Parasuraman et al., (1988). Therefore, the quality of human interaction with medical care seekers and the consistency of information and care given during a patient's journey at the hospital are just two measures of quality in this context (Johnson & Gustafsson, 2006).

The importance of service has led to the emergence of two schools of thought. The Nordic school of thought views quality in technical and functional dimensions (Grönroos, 1984; Karatepe, 2011) meanwhile the North American school of thought uses a five dimensional model consisting of responsiveness, assurance, tangibility, empathy and

reliability (RATER). Parasuraman et al., (1988) initially introduced SERVQUAL as multidimensional measurement scales to evaluate service quality. However, as service quality in different context is different and is paradoxical, these multidimensional items were gathered into five specific dimensions that encompass almost all possible aspects of a service organisation (Eskildsen, Kristensen, JØrn Juhl, & Østergaard, 2004). These five dimensions with the acronym RATER is the underlying model for a multitude of academic and non-academic research on service quality. This grounded theory has been successfully used in measuring service quality in a myriad of service industries including hospitals in Malaysia (Setyawan et al., 2019; Annuar, & Jaffery, 2018; Sanjaya, & Yasa, 2018; Ahmed, Tarique, & Arif, 2017; Shabbir, & Malik, 2016; Juhana, D., Manik, Febrinella, & Sidharta, 2015; Jain & Aggarwal, 2015; Lee & Kim, 2012; Naik, Gantasala, & Prabhakar, 2010; Heung, Wong, & Qu, 2000; Jabnoun & Chaker, 2003; Sadiq Sohail, 2003; Cheng Lim & Tang, 2000).

1.1.3 Relationship between Service Quality, Customer Satisfaction and Loyalty

The innate and unique characteristics of services make quality of service industry are difficult to be evaluated (Wirtz & Lovelock, 2016; Moeller 2010; Lovelock & Wirtz, 2005). These characteristics of intangibility, heterogeneity, inseparability and perishability are elaborated in depth in Chapter 2. In a nutshell, intangibility elucidates the non-existence of something to touch, see and taste in service whilst heterogeneity describes the inconsistency in the service at different times and by different people. The inseparability of service explains that the service is consumed as it is produced. Meanwhile perishability of service indicates the loss of the service as it is rendered as such it cannot be stored and used later. These characteristics make service unique and challenging, as service is highly dependent on human interaction whereby inconsistency