

## A STUDY OF THE FACTORS INFLUENCING CUSTOMER SATISFACTION IN MEDICAL TOURISM IN INDIA

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### ABSTRACT

With international patients shopping for health care services outside their home country, like all other consumers to receive the best care, hospitals need to design a hospital, which creates healthy and satisfied customers (patients). The hospital can only influence the patient perception through optimizing the service deliver quality. It is important to uncover factors that meet the needs of the patients and their families. Organizations that can create positive patient perceptions are the ones that will benefit from a commitment to patient satisfaction improvement, and demonstrates a type of organizational culture that facilitates success in these efforts. Medical tourism in on a high growth path in India. In this context, the aim of this study is to examine what determines customer satisfaction for people who seek medical treatment in India, and how these factors can contribute to growth. This may also aid in policy formulation on improving medical tourism in India. For the purposes of this research, medical tourism is defined as involving people who travel to a different country to receive medical treatment at a lower cost, less wait time to receive the treatment and have access to higher-quality health care or obtain specialized treatment which they would not receive in their home country. Such medical treatments may involve therapeutic intervention for cancer and cardiac matters through to dental and aesthetic surgery.

**KEYWORDS:** Customer Satisfaction, Customer Expectation, Medical Tourism in India, Global Medical Tourism

### INTRODUCTION

Medical tourism is a high-growth sector in India. In October 2015, India's medical tourism sector, was estimated to be worth US\$3 billion by a CII-Grand Thornton report. It is projected to grow to \$7-8 billion by 2020.<sup>[1]</sup> According to the Confederation of Indian Industries (CII), the primary reason that attracts medical value travel to India is cost-effectiveness, and treatment from accredited facilities at par with developed countries at much lower cost.<sup>[2]</sup> The *Medical Tourism Market Report: 2015* mentions that India was "one of the lowest cost and highest quality of all medical tourism destinations, it offers wide variety of procedures at about one-tenth the cost of similar procedures in the United States."<sup>[3]</sup>

Foreign patients travelling to India to seek medical treatment in 2012, 2013 and 2014 numbered 171,021, 236,898, and 184,298 respectively. <sup>[4]</sup> According to Radhey Mohan, Vice president, International business development, at Apollo Hospitals, the chain received 170,000 foreign patients from 87 countries during 2016-17. <sup>[5]</sup> Conventionally, the United States and the United Kingdom have been the main source countries for medical tourism to India. However, according to a CII-Grant Thornton report released in October 2015, Bangladeshis and Afghans accounted for 34% of foreign patients, the maximum share, primarily due to their close proximity to India and poor healthcare

infrastructure. Russia and the Commonwealth of Independent States (CIS) accounted for 30% share of foreign medical tourist arrivals. Other major sources of patients include Africa and the Middle East, particularly the Persian Gulf countries. <sup>[6]</sup> According to Dr Sukhvinder Singh Saggu, practicing laproscopic surgeon at Apollo Spectra New Delhi, says patients from Africa and the Middle East access private healthcare in India due to lack of facilities and doctors back home. Medical tourists from Europe and the US come here for cosmetic surgeries that are not covered by insurance. <sup>[7]</sup> According to Dr Kamini Rao, medical director at Milan - The Fertility Centre, non-resident Indians, persons of Indian origin (PIOs) and overseas citizens of India (OCIs) prefer to come here for IVF and Gynaecology treatments. "They spend only 30 per cent of what it costs in the US or UK. Moreover, they have family support here." <sup>[8]</sup>

### **The Problem Statement**

Medical tourism is growing in India, where there has been a constant inflow of patients from both developed and less-developed countries seeking better medical facilities and services. However, the growth in this sector is underscored in terms of market share and cost advantages due to various challenges. There is a need for a mechanism to strengthen the healthcare sector.

### **Motivation for Undertaking Research**

The global medical tourism market is expected to garner \$143.8 billion by 2022, during the forecast period 2015 - 2022 (Global Opportunity Analysis and Industry Forecast, 2015 - 2022, Allied Market Research). According to a CII – Grant Thornton report the Indian Medical Tourism market is expected to grow from its current size of USD 3 billion in 2015 to USD 7-8 billion by 2020. <sup>[9]</sup> However, in terms of market share India enjoys only two percent of the global wellness market, which clearly points at the under-utilization of the potential and the wellness quotient that India treasures.

In the healthcare sector, customer satisfaction is a significant factor as it is in other service sectors (Shabbir, Kaufmann & Shehzad 2010). Healthcare organizations can accomplish patient satisfaction by delivering quality services, keeping in view patients' expectations, and continually refining the health care services they offer. Cook (2008) clarified that, unless perceived expectations are met with concrete performance, customers will have an indifferent or neutral reaction to the service.

Since India attempts to position itself as one of the preferred global medical tourism hubs, a thorough understanding of means to attract, satisfy and retain medical tourists are extremely important. In such context, understanding the factors influencing customer satisfaction and focusing on patient experience is critical to the healthcare provider's overall success - in developing, managing and evaluating their strategies in Indian context.

### **Research Problem**

The aim of this study is to explore the factors that influence customer satisfaction when customers (patients) seek medical treatment in India. The purposes of the research are listed below. To examine the:

- Relationship between financial considerations and customer satisfaction
- Relationship between the hospital medical facilities and customer satisfaction
- Relationship between service quality and customer satisfaction
- The moderating variables (culture, location, and government) impact on customer satisfaction

## LITERATURE REVIEW

A study conducted by the Confederation of Indian Industry (CII) and Mckinsey Consultants in 2012 stated that India has the potential to attract 1 million medical tourists per annum and this could contribute around US\$5 billion to the Indian economy (Sagar, 2014).

Caballeron and Mugomba (2007) defined medical tourism as ‘an activity involving people who travel to another country to receive medical treatment with the objective of seeking lower-cost, higher-quality services, and more differentiated care than they could receive in their home countries.

Medical services can be consumed in a relatively exotic location in conjunction with a holiday. Michael (2011) highlights that, because of migration and the demands of a global labourmarket, expatriates and drifters may return to their country of origin for medical treatment for cultural, family and language reasons.

The reasons for the increase in tourist patients include: growing discontent with public health care; the continuing privatization of medical care; greater availability of cosmetic procedures; higher volumes of tourism; greater availability of disposable capital and ageing population across the globe (Connell 2013).

Basanth and Kuriachan (2008) argue that India is unique as it offers holistic healthcare that address the mind, body and spirit, with yoga, meditation and other Indian systems of medicine. In addition, India offers a vast array of services combined with cultural warmth that's hard to find in other countries. The threat is medical tourism has also thrived in South East Asia, especially in the case of Singapore, where there has been a steady inflow of patients from less-developed countries seeking better medical facilities and services.

Medical tourism in India evidences rapid growth and is a major source of revenue generation as well as an employment opportunity. It is essential, to enhance the productivity and profitability of the service providers to become competitive in the marketplace. The industry has also created opportunities in other sectors of the economy, such as hotels, food & beverage and the retail sector, which capitalization the families who escort patients seeking treatment in the host country. In view of these advantages, some governments have been actively promoting medical tourism to boost their domestic economies (Caballeron&Mugomba 2007).

Globalization has enhanced considerably and, as a result, has led to the rise of healthcare companies seeking to focus on bottom-line and maximize profits (Satpal&Sahil 2013). The consumers tend to rely on service process functional aspects (e.g. Doctors', nurses' and technicians' attitudes to patients and procedure waiting time) when assessing service quality since, in general, patients lack the expertise to gauge the technical quality (e.g. Diagnosis accuracy and subsequent treatment and procedures) (Wong 2002). In turn, customer satisfaction increases chance of loyal customers who may become brand advocates and promote the organization by making positive referrals through credible word-of-mouth communication (Zeithaml et al. 2009). Hospitals seeking to maintain or improve medical tourists' service quality perceptions need to clearly recognize that, only by meeting or exceeding their expectations can desired outcomes such as satisfaction and improved financial performance be achieved (Michael et al. 2013).

Understanding patient preferences are a step toward being able to provide an optimal customer satisfaction. Several organizations have begun to collect information on patient preferences for financial parameters, service delivery and modes of communication with regard to their health care (La Vela, 2014). In principle, there are two ways that

customers evaluate their satisfaction: transaction explicit satisfaction and cumulative satisfaction. These are described by Jones and Suh (2000). Transaction-specific satisfaction is a customer's evaluation of personal experience and reaction to a particular or a specific service encounter (Boshoff & Gray 2004). Cumulative satisfaction refers to the overall evaluation of the consumer experience to the present time (Cook 2008).

Furthermore, it is essential to find out what makes medical tourists decide to come to India for medical attention and select India as a preferred destination. This has to be factored into the research to find a formula for measuring customer satisfaction and determining how to shape service levels in the quest for attracting more foreign patients. The research attempts to develop an appropriate framework to benchmark Medical tourism in India for effective decision making by minimizing deficiencies and implementing possible strategies to improve the medical tourism performance.

### **Kano Model**

The customer satisfaction model was developed by Professor Noriaki Kano, explains the information that can be received from the customer, based on their perception to identify the satisfaction factors. It is used to measure client happiness (Kano et al. 1984). The tool that can be used to prioritize the Critical To Quality (CTQ) characteristics or situations, as identified from the Voice of the Customer (VOC). It explains what information can be expected and received from customers in order to find satisfaction factors.

Critical Total Quality (CTQ) is the internal critical quality parameter that relates to the wants and needs of the customer (Kano et al. 1984). According to Yang (2003), CTQ is deemed an important factor when measuring how important service quality is to the customer.

The Kano model identifies three main groups:

- **Must Be (Dissatisfier):** This quality characteristic must always be present or the customer will go somewhere else. In other words, this is the minimum quality required to attract the customer.
- **Performance (Satisfier):** The better we are at meeting customers' needs, the more satisfied they will be. Companies therefore strive to perform at as high a level as possible.
- **Delight:** Qualities which are beyond the customers' expectations are perceived as a bonus, and consequently satisfy them.

The Kano model is represented as an  $x$ - $y$  graph. The  $x$ -axis indicates how good service providers are at meeting customer expectations with Critical To Quality (CTQ) characteristics. The  $y$ -axis indicates the level of customer satisfaction as a result of the service providers' level of achievement (Spool 2011).

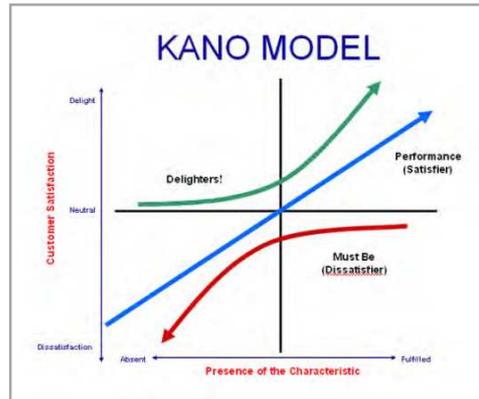


Figure 1

Firstly, the red line represents the **Must be** requirements. That is, whatever the quality characteristic is, implied, obvious, not expressed and must always be present. Increasing performance of these factors, do not give any increased returns in terms of customer satisfaction, but not meeting these results in customer dissatisfaction. If the requirements are not met, the customer will go somewhere else. It is typically captured in QFD (Quality Function Deployment), and the attribute is either satisfied or not.

Secondly, the blue line represents the one-dimensional requirements that are **Performance**. It reflects the **Voice of the Customer**, which can be articulated, measurable and is technical in nature. It can be obtained from survey responses, monitoring customer complaints and competitors.

Lastly, the green line, in the Kano model, is the **Delighter**. This represents the qualities and dimensions that the customer was not expecting, the traits that address the ‘unknown needs’, but received as a bonus and causes delight.

**Expectation Confirmation Theory (Ect)**

The ECT theory was originated by Richard L. Oliver (1997a). It provides an easy flow to understand, what the various interactions the customer encounters along the purchase journey, that helps determine the post purchase behavior of a satisfied customer. The result of interactions could be a positive or negative confirmation based on expectation versus actual performance. If a product exceeds expectations, ‘positive confirmation’ results in post-purchase satisfaction. If a product does not meet the expectations, the term negative confirmation’ is used and the customer is most likely dissatisfied (Oliver 1980; Spreng, MacKenzie&Olshavsky 1996)

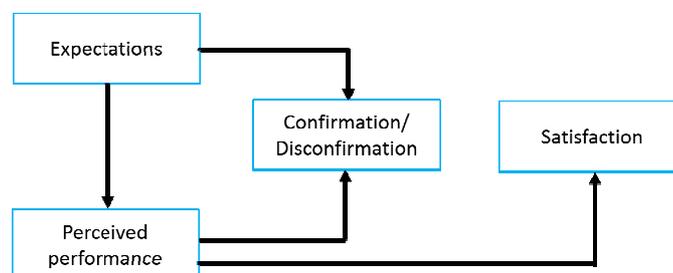


Figure 2: Expectation Confirmation Theory by Richard L. Oliver

There are four essential constructs in the model: expectations, perceived performance, confirmation, and satisfaction. A negative confirmation leads to dissatisfaction while positive confirmation leads to satisfaction (Reimer & Kuehn 2005).

## Expectations

To determine the level of service, it's critical to understand what customers want and need and how are they willing to pay. Customers are willing to pay for a quality product, provided it meets their expectations. However, when it comes to service delivery of the product companies, there is a mismatch with the customer expectations. When customers start to engage with any organization they will have a specific set of expectations (Fornell 1992). These are based on their perceptions of the company reputation, the employees and the industry (Ojo 2010). These expectations are formed through word-of-mouth references of others who have experienced the product or a previous personal experience (Negi 2009). Therefore, before customers come to India for medical treatment they have already set out their expectations.

## Perceived Performance

According to Oliver (1997a), perceived performance often varies from objective or technical performance, Healthcare service is complex and a mix of tangible and intangible benefits. The tangibles include the bed, location, amenities, but the dominating intangible aspect is the consultancy offered by the doctors and the care provided by the nurses and the promptness of the medical technicians and support staff. When international patient- customers are unfamiliar with India's medical services, they may come with preconceived notions based on their experiences in the home country or any other country they might have taken treatment in the past. Their perception of India's medical services is, to be of very high quality on account of the quality brand of India.

## Confirmation

*Confirmation* is the assessment of perceived performance, according to one or more dimensions of quality standards. Confirmation can have a positive outcome, which usually results in satisfaction, or a negative consequence, which usually results in dissatisfaction or with a zero-effect result (Oliver 1980).

## Satisfaction

Customer satisfaction is well-defined within the Expectation Confirmation Theory as the consequence of a critical reasoning and emotional evaluation. If the perceived performance surpasses expectations, customers will be satisfied. Yet if the perceived performance is not up to the mark, customers will be dissatisfied (Oliver 1997b).

## Theory

Based on the literature review, four hypotheses ( $H_1$  to  $H_4$ ) is designed to explain the relationship between ( $H_1$ ) Financial considerations and customer perceived value of cost impacts customer satisfaction, ( $H_2$ ) Service quality provided by hospital and customer satisfaction, ( $H_3$ ) Medical facilities and technology available and customer satisfaction, and ( $H_4$ ) the Environment in India (comprising the diverse culture, location, and government support) and customer satisfaction. The hypotheses are as follows:

**Hypothesis 1: The medical tourists' are looking for every cost-saving opportunity, hence financial consideration is a deciding factor and has a direct positive correlation with their satisfaction level.**

**$H_{1a}$ :** The customer's perceived value of the cost factor is highly linked to customer satisfaction.

**$H_{1b}$ :** Appropriate and fair foreign exchange rates positively impact customer satisfaction.

**Hypothesis 2: The service quality level in the hospital has a direct positive correlation with the medical tourists’ satisfaction level.**

**H<sub>2a</sub>:** Medical professionalism exhibited by doctors, surgeons, nurses, medical technicians and support staff has a positive impact on customer satisfaction.

**H<sub>2b</sub>:** Prompt service delivery has a positive impact on customer satisfaction.

**H<sub>2c</sub>:** Flawless performance, transparent communication and quality care competency have a positive influence on the rising customer expectations.

**Hypothesis 3: The state of medical facilities and medical technology is highly correlated with the medical tourists’ satisfaction.**

**H<sub>3a</sub>:** The availability of advanced medical facilities is associated with customer satisfaction

**H<sub>3b</sub>:** Advanced medical technology has a positive impact on customer satisfaction.

**Hypothesis 4: The environment in India, as a moderating variable comprising Indian government support, locates, and the country, culture, enhance the impact on the medical tourists’ satisfaction.**

**H<sub>4a</sub>:** India’s diverse-culture has a positive impact on customer satisfaction.

**H<sub>4b</sub>:** India’s geographical position has a positive impact on customer satisfaction.

**H<sub>4c</sub>:** India’s government is a major factor and has a positive impact on customer satisfaction.

**VARIABLES**

The independent or predictor variables (financial consideration, service quality, and medical facilities), dependent variable (customer satisfaction) and moderating variable (environment of India, KANO and ECT), are considered. The Indian environment comprises government support, location, and culture; enhance the impact on the medical tourists’ satisfaction.

**Table 1**

| Independent Variable  | Moderating Variable                | Dependant Variable                                 | References                                   |
|---|------------------------------------|--|--|
| Medical Professionalism   |                                    |  | Stern 2005                                   |
|   |                                    | Customer Satisfaction & Customer Loyalty           | Hu Et Al. 2010                               |
|   | Service Imperative                 | Service Imperative                                 | Brown & Bitner 2007                          |
| Good Service  |                                    | Customer Satisfaction                              | Sureshchander, Rajendran & Anantharaman 2002 |
|   |                                    | Measurement of Service Quality                     | Philip & Hazlett 2003                        |
| Quality Management in Tourism                                   |                                    |  | Kapiki 2012                                  |
| Customer Care Excellence  | Effectiveness of Customer Focus    |  | Cook 2008                                    |
|   |                                    | Customer Satisfaction                              | Eskildsen & Kristensen 2007                  |
| Customer’s Voice  | Service Quality & Customer’s Voice | Customer Satisfaction                              | Bitner & Hubbert 1994                        |
| Relationships Between Service Quality and Customer Satisfaction |                                    |  | Boshoff & Gray 2004                          |
| Service Quality Delivery  | Service Quality Delivery           |  | Jayaraman, Shankar & Hor 2010                |
| Role Of Cost  | Customer-Perceived Value           | Customer-Perceived Value, Satisfaction and Loyalty | Yang & Peterson 2004                         |
| Customer Retention  | Customer Retention                 | Customer Retention                                 | Ranaweera & Prabhu 2003                      |
| Managing Customer Expectation                                   | Managing Customer Expectation      | Managing Customer Expectation                      | Hu Et Al. 2011; Karten 2006                  |
| Repurchase Intention & Customer Satisfaction                    |                                    |  | Yin 2009                                     |
| Services Staff Attitudes  |                                    | Customer Satisfaction                              | Beatson, Lings & Gudergan 2008               |
|   | National Culture                   | Satisfaction                                       | Eskildsen, Kristensen & Henrik 2010          |

The perception of medical tourists regarding service quality listed in the table below:

Table 2

| Item No. | Service Quality Measurement Items   | Source   |
|----------|---|--|
| 1        | The web site provides adequate information on illness treatment                 | Expert-opinion   |
| 2        | Online pre-consultation of doctors  | Expert-opinion   |
| 3        | Fast and errorless online registration facility                                 | Lawthers et al. (1999)   |
| 4        | The 24 × 7 contact centre and toll-free help lines always willing to help       | Expert-opinion   |
| 5        | Medical treatment location has excellent connectivity by air/railways           | Das et al. (2007)  |
| 6        | Foreign exchange facilities are provided within the premises                    | Narayan et al. (2008)  |
| 7        | Guaranteed reservation by the medical care unit                                 | Alen et al. (2006)   |
| 8        | Hospital provides sufficient assistance in obtaining the medical visa           | Expert-opinion   |
| 9        | High level of transparency by the employees of the hospital                     | Abramowitz et al. (1987)   |
| 10       | High level of safety while availing the hospital facilities                     | Abramowitz et al. (1987)   |
| 11       | Fast response to the questions and worries by the hospital's employees          | Andaleeb (2008)  |
| 12       | Good tie-up of the hospital with insurance companies                            | Self-developed   |
| 13       | Accreditation of medical care unit is globally accepted                         | Mattoo and Rathindran (2006); Van Niekerk et al. (2003)                              |
| 14       | State-of-the-art diagnostic centre  | Duong et al. (2004)  |
| 15       | Payment facility is easy and flexible   | Haddad et al. (1998)   |
| 16       | Healthy, neat and clean environment   | Alen et al. (2006); Rao et al. (2006); Ruiqi and Adrian (2009); Hansen et al. (2008) |
| 17       | Hospital provides sufficient employees for treatment                            | Duong et al. (2004)  |
| 18       | Employees in hospital regularly monitor and assure recovery                     | Expert-opinion   |
| 19       | Highly qualified and globally trained doctors                                   | Tung and Chang (2009)  |
| 20       | Significant cost saving on the medical treatment                                | Riser (1975); Hansen et al. (2008)   |
| 21       | Good value for money against the medical tourism travel                         | Haddad et al. (1998)   |
| 22       | Routine visit of doctors and staffs   | Haddad et al. (1998)   |
| 23       | Employees of the hospital are consistently courteous and respectful             | Hansen et al. (2008); Duong et al. (2004)  |
| 24       | The behavior of hospital employees build emotional and psychological confidence | Fowdar (2008)  |
| 25       | 24 x 7 internet connectivity inside the premises                                | Narayan et al. (2008)  |
| 26       | 24 x 7 STD/ISD connectivity inside the premises                                 | Narayan et al. (2008)  |
| 27       | Quality and variety of food with multi-cuisine dining hall                      | Alen et al. (2006); Das et al. (2007)  |
| 28       | Hospital offers alternative therapy   | Self-developed   |

**Table 2: Contd.,**

| Item No. | Service Quality Measurement Items  | Source  |
|----------|--|---|
| 29       | Spiritualism/meditation programme is also provided with general treatment                  | Self-developed  |
| 30       | The prescribed medicines are available inside the premises                                 | Fowdar (2008); Rao et al. (2006)  |
| 31       | Round-the-clock pharmaceutical service   | Rao et al. (2006)   |
| 32       | Adequate information/travel desk counters to cater to specific needs                       | Rao et al. (2006)   |
| 33       | Hospital's information and advertisement about the country's cultural heritage is adequate | Yen et al. (2008); Narayan et al. (2008); Chaudhary (2000)                    |
| 34       | Quality and variety of food with multi-cuisine dining hall                                 | Alen et al. (2006); Das et al. (2007)   |
| 35       | Hospital keeps treatment records confidential  | Fowdar (2008)   |
| 36       | The attitude of local people is excellent  | Das et al. (2007); Narayan et al. (2008)                                      |
| 37       | Excellent recreational service during the period of therapy                                | Narayan et al. (2008)   |
| 38       | Good tie-up with external travel agencies  | Das et al. (2007)   |
| 39       | Waiting time for medication is short   | Hansen et al. (2008); Lawthers et al. (1999)                                  |
| 40       | Waiting time for the doctors' examination is short   | Boos et al. (2001)  |
| 41       | Short-time stay in hospital  | Rao et al. (2006)   |
| 42       | Faster in admission and discharge procedures   | Weingart et al. (2005)  |
| 43       | Sufficient healthcare infrastructure   | Das et al. (2007); Narayan et al. (2008); Yen et al. (2008)                   |
| 44       | Employees in hospital clearly communicate about the diagnosed illness and treatment        | Andaleeb (2008)   |
| 45       | Hospital keeps its promises it makes   | Ruiqi and Adrian (2009)   |
| 46       | Purpose of medical tourism travel is fulfilled   | Self developed  |
| 47       | Communicate positive things about the hospital to other people                             | Brown and Swatz (1989); Parasuraman et al. (1988); Crosby and Stephens (1987) |
| 48       | Recommend the hospital to friends, relatives and people who seek advice                    | Aydin and Ozer (2005); Collier and Bienstock (2006)                           |
| 49       | Willingness to visit the hospital for further/follow-up treatments                         | Expert-opinion  |
| 50       | Hospital keeps treatment records confidential  | Fowdar (2008)   |

## RESEARCH METHODOLOGY

A mixed research methodology is proposed to allow the researcher to prove the hypothesis that customer satisfaction is essential to any medical organization. The aim is to clarify and cross-validate the findings and the efforts to plan, implement and evaluate intervention strategies. This provides the ability to design a single research study that tackles questions on both the complex nature of the phenomenon from the participants' point of view, and the relationship between the measured variables (Brannen 2004).

### **Qualitative Study**

Qualitative methods give the researcher the opportunity to obtain an in-depth understanding of patient experiences and validate all the variables identified in the literature review. The approach allows researchers to move beyond the limitations of structured questions and have a dialogue with the customers through open-ended questions in which patients are encouraged to describe their experiences and perceptions in their own words. In doing so, the researcher may elicit a deeper understanding of patient's perceptions and behaviours and the meanings they attach to the service delivery, environment and medical facilities. In addition to using the traditional interview method the researchers propose to use some innovative approaches to evaluate the patient satisfaction.

### **Ethnographic Study**

Mystery shopping is the ethnographic approach that will allow researchers to independently experience the service quality provided by the hospital, giving an opportunity to embed themselves in the patient's experience. DiGioia (2011) proposes notes are taken based on observations, and are then compiled across experiences in order to provide insights into how to improve or redesign a care delivery process in order to improve clinical quality, process measures, save money and resources, and to improve patient perceptions of care.

### **Photovoice**

Using this approach the researcher will provide the participants are with cameras and invite them to take pictures of elements in their environment as a proof, meaningful to their experience and guided by the initial interaction with the patient. This will help the researcher to encourage participants to visually interpret the particular subject and share their unique perspective and experiences. Studies have found this technique to be beneficial in extracting rich data on perceptions and needs defined by an individual patient's viewpoint (Baker, Wang 2006)

The advantage of qualitative participatory approaches lies in the ability of these methods to (a) foster a sense of partnership between evaluators and patient participants, and (b) give patients a voice to help improve health initiatives tailored around their needs. (Wang 1998)

### **Quantitative Study**

The research questions will be designed past the qualitative study to investigate correlations. Firstly, there is a need to understand empirically the interactive effects on customer satisfaction of customer perceived value and financial considerations, medical service quality, the support of government, and the environment. Secondly, in the data collection process, the researcher will act as an independent observer and remained objective when applying the statistical techniques and when conducting the analyses. Such behaviour will make the findings impartial. Lastly, a quantitative research methodology was used so that the outcome of this study would be based on research findings rather than on theory. The open-ended questions are used to acquire the perspectives and feelings, likes, dislikes, opinion and recommendation of the customers about their expectations, based on their perception of the level of service quality in their medical treatment (Becker & Bryman 2004).

### **Sampling and Data Collection**

The sample is drawn from the population comprising of foreign patients/medical tourists seeking medical treatment in India. According to guidelines and to help decide on the sample size, Cavana, Delahaye and Sekaran

(2001) suggested that the sample size for more research should be greater than 30 and less than 500. The sample size for the qualitative study will comprise of 10 in-depth interviews and photo voice study with these participants. This study will apply the simple random sample method and the actual qualitative research intents to survey 330 respondents.

### Questionnaire Design

For the purpose of this research, post qualitative study, the research plans to develop 30 questions, framed to suit the health care practices. The questionnaire consists of two parts. The first part contains the socio-demographic characteristics of the sample of respondents, which includes gender, age, nationality, education, earnings, and purpose of the trip. The aim of this part is to gain a better understanding of the samples and to explore the correlation with other variables. The second part comprises questions about financial consideration, service quality, medical facilities, and the customers' satisfaction with respect to their individual perceptions and expectations, the environment, and the Kano model and ECT model. The respondents will be asked to circle the choice on the Likert scale that best described their perceptions and views. The ranking questions will allow respondents to choose from the diverse options. The respondents will be asked to sign a consent form before participating in the survey.

### Data Analysis

The collected data will be coded, computed, and analyzed using the Statistical Package for Social Sciences (SPSS). Principle component analysis (PCA), reliability and validity tests will be used to test the precision of the variables and the consistency of the data. A validity criterion includes item-total correlations, while the reliability test will use Cronbach's Alpha values. Statistical analyses to be used in this research includes frequencies, reliability test, descriptive factor analysis, correlation analysis, analysis of variance (ANOVA), multiple linear regression (MLR), and hierarchical regression analysis. The researcher wants a 95% confidence level.

### Theoretical Contribution

The researcher intends to propose a new conceptual service quality model applicable to the medical tourism industry. Secondly, it extends the ECT and Kano models to measure the factors influencing the service quality in the medical tourism industry.

The new model uses three important attributes: Environment, Medical Facilities and Service Quality that attracts medical tourists to India.

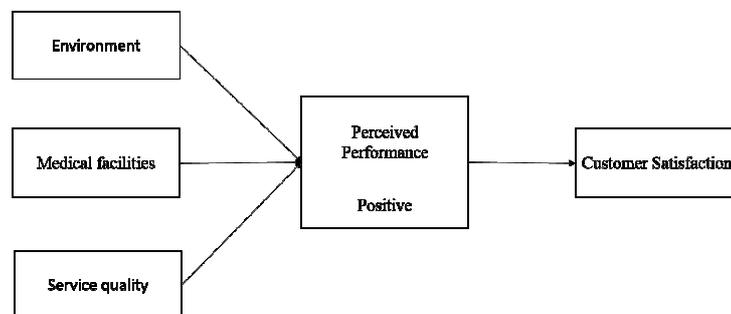


Figure 3: Customer Satisfaction Model for Medical Tourism Industry

Effective measurement of patient satisfaction factors can be used:

- To compare the patient care delivered by different hospitals
- To facilitate the availability of comparable data to international patients for decision making e.g. selection of the hospital
- Hospital management committee or board can better monitor the care provided by the hospital doctors and staff, based on the (patient) customer ratings
- By healthcare organizations to check if they are on the right track.

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