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An assessment of service quality in tertiary hospitals and medical tourism index for the growth of medical tourism in Asian context, an empirical evidence from India

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Abstract---Medical tourism has increased in past decades for better quality treatment all overseas. When compared past decades now hospitals are promoting them for medical tourism destinations. Due to increased in availability of services which are readily available in internet, social media and televisions. India is one of the countries which give tertiary care and quality services at affordable price. Most of the medical tourism in India is developed in last decade as hospitals are equipped with high quality doctors, medical facilities and trained nurses. India has proved to be one of the leading destinations of medical tourism. The main objective of this research was to look for service quality provided by JCI accredited hospitals, challenges faced by the patients after reaching India. Articles also been reviewed in terms of growth of medical tourism in Asian context. 4 centers randomly picked up from both northern and southern part of India and there medical facilities, costs and what made patients to choose a particular hospital has been studied. Randomly picked up patients from outpatient and inpatient basis over a period from 15th March 2018 till 15th February 2021. . A total of 2600 patients from outpatient and 1686 patients from inpatients of 4 hospitals (both medical and surgical branches) were analyzed. Detailed Questionnaire was made, 83% gave the feedback in outpatient and 92% from inpatient, of which overall positive feedback was from 89% and 11% were dissatisfied. Many patients had faced challenges in accommodation, language differences and most of patients had given satisfaction if the nurses

quality are good in Inpatient group including food in international standards. Medical tourism was effected during covid era. India was chosen by many countries as economically feasible. Patient satisfaction is the key for improvement of medical tourism.

Keywords---medical tourism, international healthcare entrepreneurship, service quality, medical tourism index, international patient.

Introduction

Medical tourism has increased in past decades for better quality treatment all overseas. When compared past decades now hospitals are promoting them for medical tourism destinations, today there are hundreds of hospitals give their services as outreach clinics and promoting it. India is one of the countries which give tertiary care and quality services at affordable price, but still international medical services continues to thrive although Affordable Care Act has improved insurance. Tourism sector is one of the largest employment generators in India and plays very significant role in promoting inclusive growth of the less advantaged sections of the society and eradication of poverty. The main objective of the tourism policy in India is to position tourism as a major train of economic growth and harness it's direct and multiplier effect on employment and poverty eradication in a sustainable manner by active participation of all segments of the society.

Despite of many hospitals increasing in India providing medical tourism, we actually know very little about the quality they provide and financial aspects. With vast development of social media and online services, patients can choose the hospitals and travel overseas. The quality of medical services is associated with organizations having consumer satisfaction, maintenance, allegiance, productive care, budget along with patient assurance and economic presentation.

John Connell (2006) in his article referred to an interesting sentence i.e. —First World Service at Third World Cost and offers many reasons for medical tourism development including: expensive medical treatment service on wealthy countries, time-consuming waiting lists in their own country, new technology and skill of destination countries and paying cost of international flight through aircraft and Internet marketing¹. In last decade the health care has become a highly competitive and growing industry worldwide. Patients from worldwide has different expectations and perception of services based on their social and economic condition from where they come. Hence the tertiary hospitals has to improve the medical tourism service quality at best affordable price keeping in mind the economic condition.

The key success of medical tourism depends on the service quality to drive customer satisfaction. Several studies pointed out that customer satisfaction enables companies to secure their revenues. Customer satisfaction can also reduce transactions costs, facilitate a reduction in price elasticity and reduces the chance of customers defecting if quality decreases (Hu et al, 2011)². According to

Liu and Yen (2010), customer satisfaction should be considered as a situation whereby customers can gain more benefits than cost³. It can be concluded that customer satisfaction is a key value driver in medical tourism (George et al, 2010)⁴.

Herrick (2007) indicates in his study that the global competition in health industry is significantly increasing⁵. Whereas in the past many wealthy people from developing countries visited to first world countries in order to receive higher quality medical services, currently many inhabitants of first world visit third world countries for medical treatment. However, the majority of these travelers are in fact not wealthy for first world standards; they try to receive high quality medical care for a reasonable price (Herrick, 2007)⁵.

Quality improvement is the principal factor for any hospital in this competitive era. In countries like India has received a high growth rate with a high demand for its services from overseas customers. Thus, hospitals can prioritize better their focus on quality improvement, despite of heavy reliance for patients on physicians who first treat them and also refer to certain department. India ranks 145 among 195 countries in terms of quality and accessibility of healthcare.

A research report by PricewaterhouseCoopers in 2007, observed that:—Healthcare is one of the largest sectors, in terms of revenue and employment, and the sector is expanding rapidly. The health care market can increase three fold to Rs. 8.6 trillion (US\$ 133.44 billion) by 2022. Indian medical tourism market is growing at 18% y-o-y and is expected to 9 billion by 2020. In India only middle and upper classes have access to quality health care. India has shown that it has world class medical facilities attracting a large number of medical tourists who get high quality medical care at a costs which is far low when compared to countries like USA and Europe.

The widely accepted service quality (SERVQUAL) dimensions- tangibility, empathy, reliability, responsiveness, and assurance. These dimensions help to understand their impact on the important quality outcomes such as patient satisfaction, particularly in developing countries, like India. Therefore, it is imperative for Indian Healthcare providers to deliver sustained quality service in order to establish themselves in global healthcare arena. Medical tourism can be promoted by the use of destination branding, which can be conveyed through Internet based communication.

Branding can be used in connection with various geographical entities ranging from countries and towns, and it identifies stakeholder engagement from organizations other than the one delivering the service. Branding a destination as a place in which to obtain medical treatment indicates that the city or region is engaged in making the treatment a valuable alternative for the patient. A partnership between the stakeholders involved in the destination branding is seen as crucial to the success of brand.

Objective of study

The purpose of this thesis is to obtain a deeper understanding of the medical tourists' satisfaction factors especially between the two different concepts: medical services and tourist services, to Thus, the following research question has been emerged for this study:

- 1) Factors influencing medical tourism
- 2) How to improve quality of patient care, who are coming from other countries?
- 3) Factors influencing patient care
- 4) What are India's strategies for reaching the standard of the world's top medical tourism destination?

Brief questionnaire was made, all feedbacks were taken from outpatients and inpatients. (Box 1) Box 1: Feedback forms

Outpatient	Inpatient
Doctor	How would you rate the treatment that you received in the hospital?
To what extend did the doctor understand your problem?	Doctor
How clearly did the doctor explains your condition and the course of treatment?	How often did your doctor treat you with courtesy and respect?
How would you describe the waiting time for the doctor?	How clearly did the doctor explain your condition and course of treatment?
How would you rate the country and respect provided by the doctor?	Are you satisfied with the duration and quality of time the doctor spent with you?
Lab Services	How confident were you on your doctor's ability to treat you?
Please specify the place of your sample collection	Nursing
How would you describe the waiting time for the sample collection?	How would you describe the nursing care you received?
Were you appropriately counseled before drawing the blood sample?	Did the nurses communicate with you in a way you could understand?
How do you rate the skill level of the staff collecting samples?	How often did the nurses listen and understand your problems patiently?
How would you rate the courtesy of the sample collection staff?	How often did the nurses respond to the call bell promptly?
Do you feel the time receive report is appropriate?	Admission
Radiology	How was your experience while waiting to get admitted in the hospital?
Please specify the place of your radiological investigation	How adequately were you provided with information required for your stay at the time of admission?
How would you describe he waiting time for radiology investigation?	How courteous and helpful was the reception staff at the time of admission?
Were you explained the radiology procedures by the radiology staff?	Discharge

How do you rate the skill level of the radiology staff?	How clearly were you explained your discharge summary and followup instructions?
How would you rate the courtesy of the Radiology staff?	How clearly were you briefed about your discharge?
Do you feel the time to receive report is appropriate?	Was your discharge done in timely and effective manner?
Front desk	How comfortable was your stay in the discharge lounge?
How do you rate our OPD appointment scheduling system?	Billing
How courteous and helpful was the front desk staff?	How clearly were you explained the estimated cost for your treatment?
Was your registration and billing done in timely manner?	How would you rate the courtesy of the billing staff?
Was the front office willing to help you with your query?	Was your final bill in line with your estimate?
Overall experience	How would you rate hospital's TPA/Insurance desk?
Does signage in the hospital aid in easy movement of patients and visitors?	Investigation
How would you rate the pharmacy services in the hospital?	How do you rate the skill level of the staff collecting the blood samples?
How do you find the cleanliness of the OPD and surrounding area?	Were you appropriately counseled before drawing the blood sample?
How was your experience at the food court?	Were you explained the radiology procedures by the radiology staff?
Does our staff have respect and concern for your privacy and comfort?	How would you rate your waiting experience for investigations under radiology services?
How convenient was the car parking facility?	How satisfied are you with the timeliness of radiology reporting?
Would you visit again for future healthcare needs?	F & B
Would you recommend your friends and family for their medical needs?	How was the quality of food (e.g. taste, presentation)?
Interpreter Services	How clear to you rate the correctness and timeliness of the food delivered?
How humble are interpreters to translate and explain the Doctors words?	Housekeeping
How do interpreter guide you in slab services and referral to particular doctor?	How would you in the cleanliness standards of the room and surrounding area?
Would you recommend particular interpreter for other patients?	How often did housekeeping respond promptly to your needs?
	How would you rate the behavior of the housekeeping staff?
	Overall Experience
	How convenient was the car parking facility?
	Does signage in the hospital aid in the hospital aid in eas movement of patients and visitors?

	How would you rate the pharmacy services in the hospital?
	Does our staff have respect and concern for your privacy and comfort?
	Do you consider services offered by hospital as value for money
	Would you recommend this hospital to your friends and family.

Literature Review

The purpose of a literature review for this research i.e. Problems and prospects of medical tourism in India are to:

1. Establish a theoretical framework in the subject area
2. Define key terms, definitions and terminology of medical tourism
3. Identify studies, models, case studies related to medical tourism in India and Abroad.
4. Define / establish the research topic.

Besides enlarging our knowledge about the topic, writing a literature review lets us gain and demonstrate skills in two areas:

- a) Information seeking: the ability to scan the literature efficiently, using manual or computerized methods, to identify a set of useful articles and books
- b) Critical appraisal: the ability to apply principles of analysis to identify unbiased and valid studies. We explore the literature, books and articles relating to tourism, health tourism and medical tourism.

Table 1: Online Search Literature Review Chart

Name of Publishers	Websites	Basic Search Journals	Advanced Search Journals	International Search Journals 2007-2018	Indian Search Journals 2007-2018	Related to Topic Journals
ProQuest	https://search.proquest.com	59156	6167	265	101	31
JSTOR	https://www.jstor.org	2830	462	118	9	40
Elsevier	https://www.journals.elsevier.com	4517	3573	2991	735	46
Emerald	https://www.emeraldinsight.com	1037	601	465	104	79
SAGE	http://journals.sagepub.com	5488	3422	2166	978	39

Google Scholar	https://scholar.google.co.in	70700	18300	13300	9490	71
Clinicalkey	https://clinicalkey.com					5

Tourism in Medical field

Tourism has turned out to be an economic promoter contributing to the economic development of many countries over the last few decades. People need holidays, and for almost people it is not as luxury. Tourism calls for coordination and cooperation between travel agents, tour operators, and tourists. Tourism has a few major elements such as destinations, attractions, sites, accommodation, and all ancillary services. It is well known that globalization has an effect on the world's economy and the healthcare industry is no exception. 'Medical Tourism' initiated when patients of developed countries took advantage of healthcare facilities while traveling overseas, but also took part in a particular medical involvement (Debata, 2011)⁶. Medical Tourism is a fairly fresh market with approximately 100- 150 billion USD potential. Because of different reasons ranging from cost awareness or quality purposes, it is a rapidly developing market. Bookman and Bookman (2007) indicate that medical tourism is 'travel overseas with the aim of improving one's health'⁷. Furthermore, Medical Tourism is different from tourism and it is stated as the mixture of traveling abroad for a possible relaxing holiday but also involving a certain medical interference (Debata et al., 2011)⁶.

In developing countries, medical tourism is a concept of a growing synergy between medical amenities and tourism. Studies have touched on the significance of medical tourism for developing countries and have indicated that it has had a great impact economically and has significantly increased the rate of employment (Debata et al., 2011)⁶. Although medical tourism is a swiftly emerging and growing in most parts of the world, academic studies have indicated that research is still in an early stage and it is needed to perform more empirical, as well as experimental studies and conceptualization (Veerasoontorn, 2011)⁸.

Medical tourism, like any other industry which is functioning in a competitive environment has to proactively manage marketing service quality, customer loyalty and customer satisfaction plans, promotional methods including word-of-mouth communication, and most importantly being aware in positioning and distinguishing medical tourism providers (Guiry et al., 2013)⁹. Different issues and obstacles are combined with medical tourism. The most significant problem is about evaluating the quality of care. There are many accredited organizations that assess international health care industries, but the policies and standards are not the same in all countries.

Service Customer Satisfaction

The psychological feeling of pleasure and gratification that is created from receiving what one needs, wishes and presumes from a product or service is

Customer Satisfaction (WTO, 1985). There are many explanations and definitions to describing customer satisfaction or dissatisfaction, but the universal definition that is well known is the one by Richard Oliver whom explained the expectancy disconfirmation theory (Oliver, 1980)¹⁰.

Singh (2011) claims that customer satisfaction/dissatisfaction has no common explanation¹¹. However, most scholars believe that it is the psychological comparison between expectation and actual good or service performance. When a service performs as expected, therefore a person's expectation is conformed negatively when it functions worse than expected, and vice versa positively when a product or service performs better than expected (Oliver and DeSarbo, 1988)¹².

Keh et al. (2013) indicate that most service interactions are related to frontline or direct employees¹³. Consequently, direct employees are responsible for making sure that customer satisfaction is achieved accurately and not undervalued. It has been identified that three different employee characteristics (i.e., physical attractiveness, displayed emotion, or helpfulness) result in customer satisfaction. These results have shown intense administrative consequences for high contact services (Keh et al., 2013)¹³. It is well known that customer satisfaction is also the most cost effective and easiest method of advertising. Numerous researches has indicated that it costs a lot more time, cash and supplies to attract a new customer in comparison to keep an existing one.

Singh (2011) indicates that satisfied customers share their good experiences with other people based on what they have achieved, also dissatisfied customers share their negative experiences about the product, service or brand they have been confronted with¹¹. Customers, who are slightly dissatisfied, share their experience with on average just over one person, while customers that have had an awful experience and are super angry share their experience with more than 20 people. Therefore it is vital to understand customer expectancies, keeping high levels of service and refining the quality level of products and services in order to meet consumer satisfaction.

Patients' Satisfaction

According to Tsu-Ming, Y. (2010), as technology has been improving, living expectations and the public medical awareness and demands has also increased¹⁴. Patients care more about their health and obviously demand higher levels of medical services. In addition, people's knowledge of the medical approaches is no longer limited to medical techniques and therefore hospitals have to be fully aware of satisfying attributes related to their patients.

Kathleen Iverson (1989) in her articles has stressed the importance of hospitality and hotel management in tourism and has spoken about hospitality operations and the being of people in the field of tourism. Manish Rathi (2000), Bhardwaj, D. S., Kamra, K. K., and Chaudhary, M. (2006) and Larry Yu (2004) also wrote about hospitality and hotel management and how it effected in satisfaction of tourists.

Guiry (2013) shows that in a medical environment, customers rely on service process for evaluating the quality (e.g. professionals' attitudes and processes such

as waiting time).⁹ When assessing service quality, patients have not adequate professional expertise in technical quality criteria (e.g. the precision of diagnosis, measures and treatments). In other words, since healthcare services are not easy to accurate assessment, efficient involvement between patients and healthcare professionals is essential in the evaluation (Singh, 1991)¹⁵.

Different studies imply that patient satisfaction stems from improvement in the quality of healthcare services and this result leads to loyal patients, that consequently through positive 'word-of-mouth' creates a constructive business structure with reduced cost (Singh, 2011)¹¹. Singh (2011) also indicates that many studies have done to understand different healthcare quality dimensions. Patients have determined the important factors that have had an impact on patients' satisfaction¹¹.

Diverse methods have been utilized to determine and construct patient satisfaction (Andaleeb, 1998)¹⁵. SERVQUAL is a mechanism that is created to measure customer satisfaction (Parasuraman, Zeithaml, and Berry, 1985¹⁷; Parasuraman, Berry, and Zeithaml, 1991¹⁸; Taylor and Cronin, 1994¹⁹; Wong, 2002), also SERVPERF (Cronin and Taylor, 1992)²⁰, and Rissers's Patient Satisfaction Inventory (PSI), (Risser, 1975)²¹. According to Singh (2011), a dynamic connection has been associated in the literature of patient satisfaction, service quality and loyalty¹¹.

Ghazali Musa et al. (2012) claim that 'quality interaction' is essential because it increases the trust and confidence of the patients toward health care professionals²². Also, personnel quality is vital because patients do not have the capability of identifying technical quality presented by service specialists (Padma et al., 2010)²³. Bowers, Swan and Koehler (1994) state there are five different factors that patients examine in healthcare quality. These include: empathy, reliability, responsiveness, communication and care. It shows that most of a patient's concern is related to interpersonal aspects. According to Stiles, Renee, Mick and Stephen (1994), technological attention, ease and interpersonal skills are three vital viewpoints that need to be utilized in a healthcare quality evaluation²⁴.

According to Tarlov and Ware (1989) patient satisfaction can be divided in to two categories²⁵:

- 1) Structure of Care: this includes the different attributes that medical organizations acquire (e.g., technique, accessibility and convenience, etc.), quality of doctors (age, sex, professional background, attitude, etc.), quality of patients (age, sex, socioeconomic position, lifestyle, sickness, level of urgency, etc.).
- 2) Procedure of Care: Consistency and stability of care during medical handling (i.e. specialist referral, double consultation), communication between medical professionals and patients, level of patients' participant during the procedure, etc. Medical staff showing politeness, helpfulness, and having a positive behavior towards patients will have a profound impact on patients' satisfaction and as a result benefit healthcare providers (Andaleeb, 1998¹⁶; Babic-Banaszak et al., 2001²⁶; Ghazali Musa et al., 2012)²².

Similarly according to Leinonen et al. (2001) the viewpoint that is gained from patients towards service quality entails that medical professionals require showing respect, empathy, and care, as well as professional and service skills²⁷. Major and time-consuming factors that result in customer satisfaction and positive perception include: giving complete information about diagnosis, recommended techniques for treatment, prescriptions, hospital stay and discharge procedures (Hensen et al., 2008)²⁸.

According to Singh (2011) there are ten different characteristics under ‘operational quality’ that lead to customer satisfaction¹¹. These include: staff, enough physicians, enough equipment, internal and external atmosphere, effectiveness of laboratory, easy admission process, blood bank services, efficiency in urgent matter, out-patient follow up and housekeeping services.

Furthermore, six different characteristics are identified under ‘specialist service quality’. These include: trustworthy physicians, patient care through physician, promptness of physician, empathetic and caring nature of physician, vivid communication about diagnosis to patient and interaction of physicians with nurses. Overall, there has been a positive feedback of physician care by patients (Woodward et al., 2000)²⁹.

According to Elleuch (2008) in Japan, a rapid service, staff attitude during communication with patients and environment appearance is essential for Japanese patients. Furthermore, other essentials include politeness, efficiency, reacting quickly, enthusiasm to help, confident communication, and trust. Andaleeb (1998) through a research in Pennsylvania indicates that vital attributes emphasized by patients for satisfaction include: communication, staff proficiency, staff attitude, quality facilities, and perceived costs¹⁶.

According to Babic-Banaszak et al. (2001) in Croatia, an effective response towards nurses' kindness, patience, willingness to help, compassion and time management are important to patients²⁶. Yildiz and Erdogmus (2004) in Turkey show that physician and nursing care, dietary care, room ambience and hygiene environment, procedures used on patients admission and other services are essential in identifying patients' satisfaction³⁰. Referring to a research done in Kuwait by Alhashem et al. (2011) it has been stated that patients are usually disappointed with physicians when there are long waiting hours and insufficient time for communication with specialists³¹. Also, it has been pointed out that physicians do not mention any nutritional advice that should be given to improve their medical condition. Enough time between the healthcare professional and patient increases trust and value in the medical services. Furthermore, patients' gratitude, consistency and trustworthiness can be increased in the long term (Ghazali Musa et al., 2012)²².

Moreover, according to Connel (2006) sometimes secondary services are needed which assist in performance such as interpretation for a different language¹. According to Lin et al. (2010) in Taiwan, hospital based Emergency Departments (ED) patient satisfaction was measured with a specific questionnaire that covered

three different aspects (the quality of service given by the doctors, waiting times and physical ambience)³.

It was indicated that perceived waiting times and quality of professional service performance were the essential dimensions that linked the ED patient satisfaction and enthusiasm to advertise the ED. Moreover, there were different concerns such as privacy, noise, smell, temperature, hygienic place, and direction signals etc. that played vital roles on the general ED patient satisfaction and enthusiasm to promote the ED.

Referring to Abramowitz et al (1987), 10 measurements have been suggested in order to improve patient satisfaction³². These incorporate following: professional approach in medical care and nurse care, nurses' help, explanation of diagnosis and treatment process by staff, food, housekeeping, bothering sound, concierge, cleanliness and healthcare advisors. It has been mentioned by Parasuraman et al. (1988) that there are different unique factors, for example communication, understanding, assistance, courtesy and etc. that are vital for assessing professional services³³. John (1989) points out that there are four measurements of service quality that they are essential for medical providers³⁴. These include: the caring measurement, the curing measurement, the physical ambience measurement and the access measurement.

According to Nelson (1990) patient satisfaction can be assessed by four different variables; Consistency of patient care, patient satisfaction with the results, physician-patient relationship and patient's expectancy³⁵. Furthermore, Tung and Chang (2009) undertook a study in the Taiwan healthcare system and discovered that physicians' technical skill and interpersonal skills are two of the most essential features needed³⁶.

Rubin (1990) indicated that medical and nursing care, effective communication, hospitalmanagement and ward atmosphere, as well as discharge process factors affect the service quality in the medical system³⁷. Furthermore, waiting patient times, atmosphere in waiting rooms, staff approach, and giving the patients enough information are essential features in the healthcare system. Physicians and staff behavior, medicine accessibility, providing health information, hospital arrangement are fundamental features that result in patient approval. Moreover, Marrakchi indicates that causes such as admission process, care, giving information, convenience, food and billing services contribute to patient satisfaction. These features were examined with an approximately 70% variance in a questionnaire survey evaluated using factor analysis.

With a comprehensive view Chang- Sheng Chang et al. (2006) undertook an inclusive approach utilizing the Linear Structural Relation Model (LISREL), and discovered that medical professionals, nursing professionals, service personnel and space and facilities are operational predictors of patients' satisfaction (see Figure 1)³⁸. These are factors providing a holistic view to patient's satisfaction.

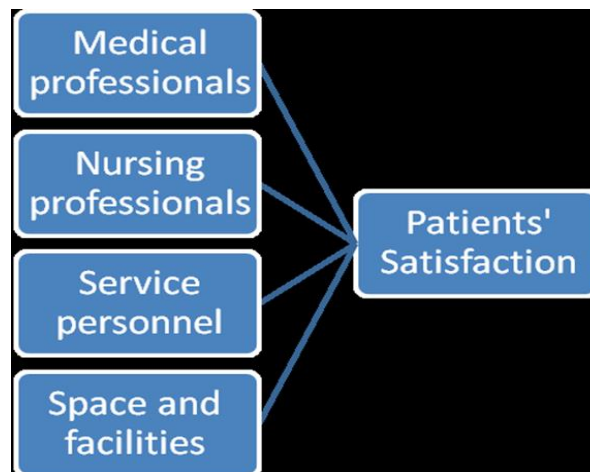


Figure 1: Patients' Satisfaction factors (Chang et al., 2006)

Considering the patients' satisfaction model offered by Chang et al. (2006), the authors have presented different features related to each four factor³⁸. They have provided a table consists of some features in order to evaluate patients' satisfaction precisely. Moreover the parts of literature that confirm these attributes are added to the table in order to provide concrete justifications.

Not only professional medical skills and equipment are important to evaluate patient's satisfaction but also communication and interpersonal skills are fundamental attributes contribute to their satisfaction. It would be even more critical toward medical tourists that are far from their home and family members.

Tourists' Satisfaction

According to (Smith and Puczko, 2009), medical tourists have a large impact on the tourism industry not only by being consumers of healthcare services but also by travelling to the destination, staying in different hotels and using tourism services³⁹. Tourism is obviously a distinguished service experience from the airline structure, food, bank, staying overnight in a place and different kinds of service experiences (Zeithaml et al., 1993)⁴⁰. In other words, tourist satisfaction of a destination depends on many different factors. It is influenced by different experiences from many independent businesses. A definition for tourist satisfaction comes from a comparison between -a tourist's experience at the destination visited and the expectations about the destination! (Pizam, Newumann, and Reichel, 1978)⁴¹. Controversies have risen about this definition because in this definition it has been assumed that expectations are essential foundation to satisfaction. According to Thuy- Huong Truong (2005) pleasant experiences are probably those that are never expected⁴². It is said that both pre-and post-trip outlooks of the travelers influence their satisfaction (Pearce, 1980)⁴³.

Studies have indicated that to analyze the level of visitor satisfaction towards a particular vacation destination, different measurements have been utilized that create gap scores based on the difference between the expectation and perception

related to providing different services according to the destination (Moutinho, 1987⁴⁴; Parasuraman, Zeithmal and Berry, 1988)³³. This approach is not holistic and cannot consider all the experiences of a visitor.

In tourism industry, relation between tourists' satisfaction and a tourist's purpose to come back is absolutely confirmed by the visitor's analysis of the destination's diverse qualities. Moreover, many studies have determined a destination performance by identifying the visitor's satisfaction with different features of that particular destination (Alegre and Garau, 2010)⁴⁵. According to Siskos et al. (2013) there are five features that measure tourists' satisfaction⁴⁶. These include: travel/transportation facilities, catering, room and board, tourist fascinations/pleasure and tourist infrastructure. The image of a destination can also have partial influence on variables which create the satisfaction or dissatisfaction that a tourist feels in a destination. Travel agencies, accommodation, tours and destinations have also determined tourism satisfaction features independently (del Bosque and Martín, 2008)⁴⁷.

Murphy, Pritchard and Smith (2000) identified the essential measurements of the destination. Such as: ambience and landscape, history and culture, lifestyle of the people, infrastructure for tourism, hobbies and activities⁴⁸. Some analysts researched the quality level of a destination based on the dissatisfaction and negative occurrences that could affect the overall vacation experience (Alegre and Garau, 2010)⁴⁵. The researches that were completed indicate that displeasing declarations have an influence of both travelers' general satisfaction and their intention to return as well (Babin and Griffin, 1998, 2001)^{49,50}.

This concludes that displeasing experiences at a destination might not control the overall satisfaction; however, they can make the destination seem less pleasing and decrease the possibility of returning to that specific destination (Alegre and Garau, 2010)⁴⁵. According to Alegre and Garau (2010) it is essential to determine how both negative and positive features affect a tourist's perception towards a destination⁴⁵. The negative factors are vital since it can be explicit to a destination and make it different negatively towards competitive destinations.

In addition the travel industry is so dynamic, that it is better to attract a repeating and loyal visitor towards a specific destination. With regards to this statement, Alegre and Garau (2010) argue that it is essential to know that a destination's positive attributes do not exclusively affect the satisfaction of a tourist and his/her purpose to return is not just resulted by that factors⁴⁵. Negative factors can be solid influences in disappointing tourists from returning to a specific destination. Consequently, tourist destinations have to make sure to enhance the positive factors and fix the negative ones. Tribe and Snaith (1998) developed an innovative model called HOLSAT (HOLIdaySATisfaction) that compares the experience of holiday features or crucial attributes alongside traveler's expectancies⁵¹. These characteristics are determined for a specific travel destination and are not general, overcoming one of the boundaries of earlier models in dealing with the understanding of holiday satisfaction. Moreover, HOLSAT characteristics can include either positive or negative aspects that can either enhance or reduce the value in the holiday distinction respectively. In addition, for calculating tourist's holiday experience a fundamental feature of

HOLSAT is its capability to differentiate performance of a range of holiday features against consumer's view.

The HOLSAT model has been designed in order to specify the complex characteristics of customer satisfaction with a vacation. Moreover, this model delivers an opportunity for pricebased reasons for considering a holiday destination (Thuy- Huong Truong, 2005)⁴².

According to Tribe and Snaith (1998), different characteristics that can define a holiday destination are appropriately grouped under the following headlines (-The Five A's!l)⁵¹:

1. Attractions: exciting attributes that fascinate travelers to the particular destination.
2. Activities: Different amusing and fun activities offered.
3. Accessibility: Simplicity of traveling to the destination. For example, acquiring visas, health hazards and etc.
4. Accommodation: Standard hotel rooms or other places available at the destination;
5. Amenity: Services that a visitor needs. For example, convenient shopping, banking and telephone services, etc.

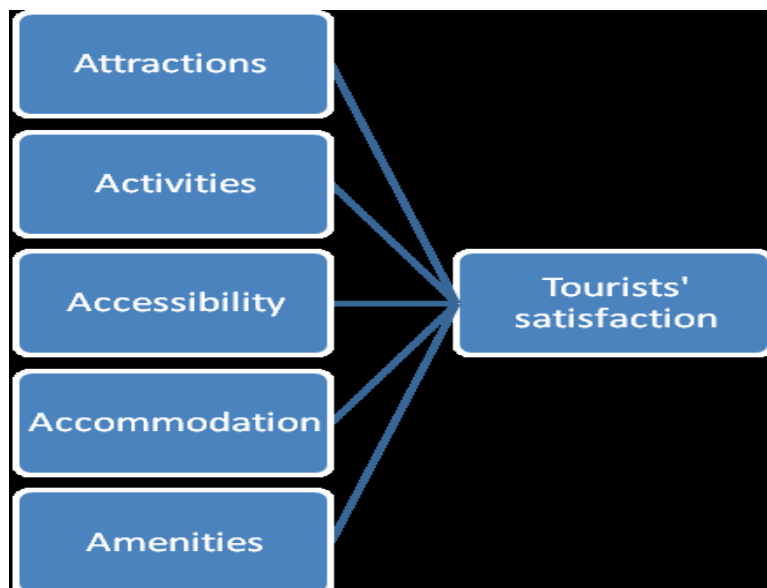


Figure 2: HOLSAT Model (Tribe and Snaith, 1998)

HOLSAT is different to many other models because it identifies the relation between performance and previous expectation rather than performance alone as is the point with SERVPERF (Cronin and Taylor, 1994)⁵², or performance relative to importance as what was done in Importance-Performance Assessment or performance related to outstanding quality (a precise indication of what the traveler thinks an unique service would provide) as is the point with SERVQUAL (Parasuraman, Zeithaml, and Berry, 1988)³³.

In order to identify consumer satisfaction with regards to specific services, previous researchers have utilized different measurements that create gap scores based on the differentiation between the expectation and perception (Parasuraman, Zeithaml, and Berry, 1985)¹⁷. Researchers such as Moutinho (1987) have used this method in the tourism industry by evaluating satisfaction with the delivery of each service related to the destination⁴⁴. Nevertheless, these methods are not complete because it does not point out the complete holiday experience but only identifies the amenities provided by specific organization(s) (Truong and Foster, 2006)⁵³.

Identifying tourists' satisfaction with a specific destination is not simply the cumulative calculation of service quality of a number of singular service suppliers. Furthermore, there are numerous functionalities and involvements that are main characteristics of a particular destination that are not connected to certain organization or are delivered by numerous functioning in performance (Truong and Foster, 2006)⁵³. Consequently, any instrument for measuring satisfaction must involve these functionalities of the overall vacation experience. One of the main points of the HOLSAT mechanism is its capability to measure a tourist's fulfillment with regards to their vacation experience at a specific destination rather than a specific service supplier (i.e. hotel). As explained above, different analyses of tourist contentment have fixated on specific personal services (Truong and Foster, 2006)⁵³.

The results show that the HOLSAT model is an appreciated instrument that can be utilized to assess the satisfaction of tourists with certain destinations. It was determined that it is easy to apply that can be utilized in the future planning and running of the tourism productiveness (Truong and Foster, 2006)⁵³.

Kano's Model

Kano's model is an appropriate method to classify product/service characteristics according to the measure of satisfaction that each is able to deliver. Kano Model, presented by Kano et al. (1984) assumes that customer satisfaction does not happen when all the important features are obtained, and that is possible for consumers to experience dissatisfaction or have neutral feeling towards as well⁵⁴.

The Kano's Model primarily applied in manufacturing industry and consists of five characteristics presented by Kano et al. (1984) which include⁵⁴:

1. Attractive quality characteristics: customers are satisfied when delivered and not dissatisfied if absent;
2. One-dimensional quality characteristics: Which are directly linked to the customer's satisfaction. The more the customer is pleased with this kind of characteristic, the higher the degree of the consumer's satisfaction.
3. Must be quality characteristics: the absence will conclude in the customer's discontentment, but attendance does not suggestively add to consumer's satisfaction.
4. Indifferent quality characteristics: the attendance or nonappearance of which concludes in neither satisfaction nor dissatisfaction.

5. Reverse quality characteristics: attendance creates customer's dissatisfaction and whose nonattendance results in customer's satisfaction.

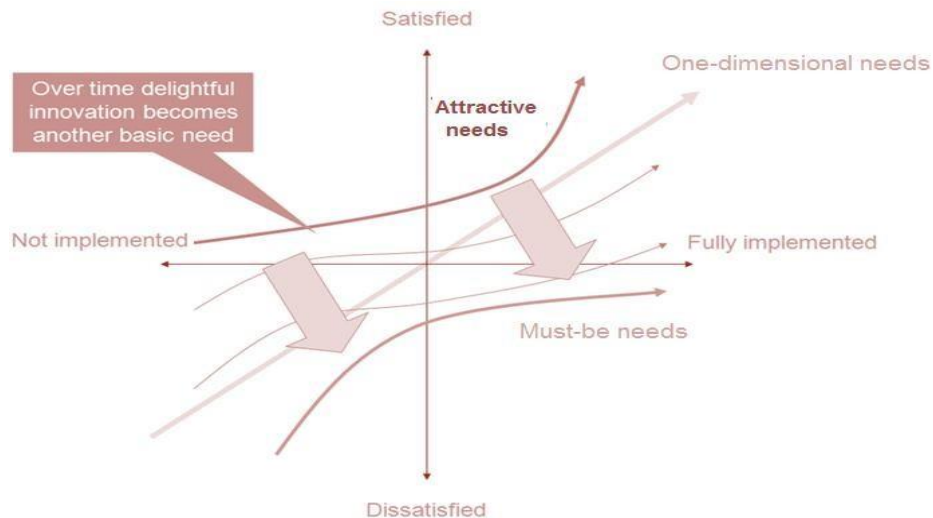


Figure 3: Kano's model (Kano et al., 1984)

In Kano's Model, the horizontal axis indicates the level to which the quality characteristic is effectively achieved. The more it goes towards the left, the quality characteristic becomes more insignificant, and the higher the degree of shortage is; On the other hand, the more it goes towards the right, the higher the degree of achievement is. The vertical axis shows the satisfaction that consumers feel associated with the quality characteristics. The higher it is, the more satisfaction is shown; while the lower it is, the more dissatisfaction is shown (See Figure 3).

Primarily, Kano's model can assist an establishment to classify its characteristics based on the relationship between characteristic performance and consumer satisfaction. Kano's model, therefore, adopts that the relationship between character performance and consumer satisfaction is not certainly direct (Theresia et al., 2003)⁵⁵. Oppositely many other linear methods like SERVQUAL's, determine the priorities for enhancing service features, might be inappropriate in certain cases. Furthermore, SERVQUAL is known as a continuous improvement instrument. However, there is no innovation element (Theresia et al., 2003)⁵⁵. In addition, Kano's model has been applied to diverse types of services, including tourist services. The analysis of researches shows that both satisfaction and dissatisfaction have a vital influence on the general satisfaction with a product or service (Alegre and Garau, 2010)⁴⁵.

Emerged Frame of Reference

With reference to (Bookman and Bookman, 2007⁷; Yu, Lee and Noh, 2011⁵⁶) as previously discussed, literature indicated medical tourism as the combination of travel to an overseas vacation destination for a possible recreation and an explicit medical intervention. Prior examinations studied attributes for patients' satisfaction and tourist's satisfaction separately. This examination combines

these methods to assess the influences of the different attributes on medical tourists' satisfaction.

Patients' satisfaction characteristics in this research are adapted from the medical service quality demand features designed by Ching-Sheng Chang et al. (2006)³⁸. They include medical professionals, nursing professionals, service personnel, space and facilities. Additionally Tribe and Snaith (1998) suggest a method for determining tourist satisfaction with a vacation destination, which they refer to as HOLSAT⁵¹. In this model, the understanding of satisfaction is determined as the level to which a tourist's examination of a destination's characteristics beats his/her expectations.

This study thus seeks to identify medical tourists' satisfaction attributes via a combined model and categorizing these into different types of quality based on the Kano's model. Medical tourists' opinions can help as a reference for the improvement of medical tourist service quality and the general enhancement of linked segments. In this study Kano's model is presented for evaluation since, studies of the impact of a product or service's diverse factors or characteristics on customer satisfaction state that one-dimensional model of satisfaction can be inadequate (Alegre and Garau, 2010)⁴⁵. The one-dimensional models accept that a single attribute can create both satisfaction (when everything goes well) and dissatisfaction (when things do not go well). Nevertheless, the above research indicates that the attendance of certain features creates satisfaction, yet their nonattendance does not essentially produce dissatisfaction.

To point out, the opposite can also happen, where different influences or circumstances can only create dissatisfaction, whereas their nonattendance does not essentially lead to satisfaction (Kano, 1984⁵⁷; Kano, Seraku, Takahashi, and Tsuji, 1984⁵⁸). To answer to the research questions, the following frame of reference has been adapted to comprehend the all-inclusive view of how medical tourists' satisfaction should be evaluated. The emerged frame of reference is a combination of previously discussed models on patients' satisfaction and tourists' satisfaction. The prior segments of the thesis have represented the background for this study such as the theories offered in the literature (see Figure 4).

The theories and models have been taken into account crucially to identify which one is suitable for this research and they will be represented in this segment of the thesis; the emerged frame of reference.

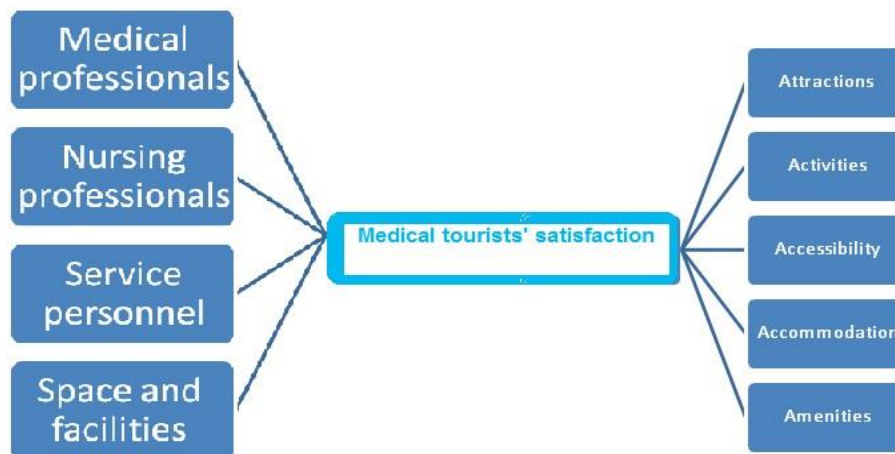


Figure 4: Emerged Frame of Reference (Combined model)

The study is going to answer the following research question according to the emerged frame of reference; What are the most important factors that influence medical tourist satisfaction/dissatisfaction? Given the fact that medical tourists' satisfaction is an issue influenced by numerous features, the new model can be considered as a multi-criteria evaluation instrument.

Methodology

Research Purpose

Saunders, Lewis and Thornhill (2009) have identified 3 types of research purposes: descriptive, exploratory and explanatory⁵⁹. The purpose of each one is different; descriptive studies describe an event or situation whereas exploratory studies seek clarification. Explanatory studies focus on establishing causal relationships. This particular research should be characterized as -descriptive since it tries to identify and describe the main factors for customer satisfaction in medical tourism. Additionally, this research is partly also exploratory; since it tries to explain that part of the research subject which is still unexplored and needs more clarification.

Research Approach

Within research methodology, a distinction can be made between 2 types of research; quantitative and qualitative (Saunders et al., 2009)⁵⁹. Qualitative research works with data which is expressed in words and can therefore provide insights on subject that can't be quantified in a meaningful way (Saunders et al., 2009)⁵⁹. The quantitative approach, however, refers to numbers and measurements (Bryman and Bell 2007)⁶⁰. In particular this research will use the Kano's model for analysis. Kano's model can be analyzed quantitatively (Wang, 2009)⁶¹.

Firstly this research utilizes traditional Kano' model, as the first stage of the proposed approach. It mainly concerns collecting the data and analyzing questionnaire results according to the most frequent response method similar to

Wang's work. Then a quantitative analysis proposed by Berger et al. (1993) is applied to calculate two values: "Better" and "Worse"⁶². These values are useful to elaborate the average effect of each attribute on the extent of customer satisfaction and the extent of customer dissatisfaction (Wang, 2009)⁶¹.

Saunders et al. (2009) also identified an inductive and deductive research approach⁵⁹. Inductive research develops theory based on empiric data, whereas deductive research is based on theoretical propositions which allow researchers to anticipate phenomena and gathering empiric data (Saunders et al., 2009)⁵⁹. This particular study is based on deductive research method. Since this research will use a theoretical frame of reference, is therefore deductive in nature.

Research strategy

According to Yin (2009) several different research strategies can be identified based on the nature of the research; experiment, survey, archival analysis, history and case study⁶³. In order to effectively collect data for the purpose of answering the research question a case study will be performed for this research. Case studies are an effective strategy for understanding contemporary phenomena and can be used for multiple research areas; particularly within businesses, social studies and psychology (Yin, 2009)⁶³.

Han et al. (2015) state case studies are especially effective in describing decision processes; why decisions were made, how they were applied and what the results are⁶⁴. Case studies can provide a holistic and meaningful view of life events such as individual-, group- and organizational behavior. This insight is especially obtained by studies whereby the boundaries and context of the studied phenomenon is not clear.

This research paper focuses on a subject that is quite new and therefore further research is useful. Saunders et al. (2009) argue that case study strategy can be very meaningful not just for exploring existing theories but also for challenging existing theories⁵⁹. This supports the use of a case study for this particular research.

Yin (2009) distinguishes 2 types of case study; single-case or multiple-case⁶¹. In this research paper a multiple case design is chosen because it may lead to a better understanding of the studied subject than with the use of a single-case design. In order to perform multiple case research medical tourists in two different hospitals were questioned. Both of these hospitals are well-equipped and specialized in medical tourism.

Sample Selection

The target population for this study is the foreigner persons who have come to India as medical tourist in order to receive medical treatment in JCI accredited hospitals. In order to choose a sample, non-Indian patients in four hospitals which are active in attracting medical tourists and are located in different cities were selected.

The hospitals which are located in both northern and southern India are hospital-hotel complex with over >350 beds and >10 operation rooms, providing the most advanced medical services and VIP hospitality services.

The data for this study will be gathered by probability/random sampling. According to Han et al. (2015), findings which are based on a probability sample can be generalized to the total population with a specific level of confidence. Since the whole target population cannot be questioned because of practical restrictions like time and workload, this type of data gathering is appropriate for this research⁶⁴.

In business research, choosing the number of samples is a topic for discussion, especially in studies of students. Bryman and Bell (2007) claim that "the larger the sample size, the greater the precision"⁶⁰. In other words, more samples in the survey cause less sampling errors. Due to time and cost limitation of students, it is difficult to obtain a large number of respondents. According to Bamberg (2008), the minimum number of respondents in a small population should be about 30⁶⁵. Therefore a sample size of 30 is a sufficient population for analysis and can consequently generate valid results.

Data Collection Method

Several methods can be used for data collection. This research paper will use a questionnaire as data collection method. According to Saunders et al. (2009), questionnaires are a good method for collecting large amounts of data⁵⁹. The questions in the questionnaire are designed in such a way that they will help to answer the research question. Questions from similar researches have been looked at and are changed to fit this particular study.

A questionnaire which was used in previous research by Chang et al. (2006) has been modified to fit this study³⁸. This study relates to patients' satisfaction features. Other questions used are derived from the HOLSAT model which was also based on previous work by Tribe and Snaith (1998)⁵¹ and Thuy-Huong Truong (2005)⁴². According to the Kano's model these questions were slightly altered.

Questionnaire design

The questionnaire consisted of 2 sections. The first section dealt with some general demographic questions about the respondents. These questions were about gender, age, education, main disease and nationality of the medical tourists. In the second part, the survey is followed by answering Kano questions characterizing medical tourists' satisfaction.

In this study nine main aspects were figured out concerning both patient satisfaction and tourist satisfaction based on the frame of reference according to the previous literature. The first step in designing this part of the questionnaire was to establish attributes considered important to patients in hospitals. Therefore 14 attributes were developed based on the research of Chang et al. (2006)³⁸.

Tribe and Snaith (1998) developed an innovative model called HOLSAT (HOLidaySATisfaction) that compares the experience of holiday features or crucial attributes alongside traveler's expectancies⁵¹. According to Tribe and Snaith (1998), different characteristics that can define a holiday destination are appropriately grouped under the following headlines (-The Five A's): _Attractions“, _Activities“, _Amenities“, _Accommodation“ and _Accessibility“⁵¹.

Twenty three attributes are derived from the previous work by Truong and foster (2006) that each one is belonging to one of the -the five A's|| headlines⁵¹. The most appropriate attributes, which characterizing India as a holiday destination, were carefully chosen by a detailed review of information and interviewing some experts. These attributes were slightly altered according to the destination characteristics in order to fit this study.

In addition, one specialist in questionnaires from the research center of the hospital and one advisor who were in direct contact with medical tourists were consulted before the Kano questionnaire construction in order to arrange the mandatory attributes and providing the questions. After determining 26 key tourist satisfaction attributes, the questionnaire is constructed based on meaningful questions to achieve valid and accurate data for analysis.

The questionnaire consists of two main types of questions; a functional form question and dysfunctional form question. The functional form question refers to a customer response if a feature is provided while the dysfunctional form question suggests that the customer response if a feature is not provided (Kano et al. 1984⁵⁴, Berger et al. 1993⁶²). The literature review and emerged frame of reference presented dimensions that medical tourists' satisfaction evaluation is based on them. Each question has five possible answers, (1) I like it that way; (2) It must be that way; (3) I am neutral; (4) I can live with it that way; (5) I dislike it that way.

Data analysis

This research paper will perform data analysis according to Kano's model. The Kano model focuses on 3 main categories of customer requirements that impact customer satisfaction. However, the Kano questionnaire uses a more detailed categorization of 6 types of attributes One-dimensional (O), Attractive (A), Must-be (M), Indifferent (I), Reverse (R) and questionable (Q). The first three are the main categories that are already well described by the Kano diagram (Kano et al, 1984)⁵⁸.

There are different methods according to Kano's questionnaire evaluation. The most applicable one is evaluation based on frequency of answers (Sauerwein, 1999)⁶⁶. In the following, thirty seven attributes related to nine aspects are examined to find out which ones are more important and which ones are less important from the point of view of the medical tourists in India

Customer requirements ↓		Dysfunctional (negative) question				
		1. like	2. must be	3. neutral	4. live with	5. dislike
Functional (positive) question	1. like	Q	A	A	A	O
	2. must-be	R	I	I	I	M
	3. neutral	R	I	I	I	M
	4. live with	R	I	I	I	M
	5. dislike	R	R	R	R	Q

Customer requirement is ...

A: Attractive
M: Must-be
R: Reverse

O: One-dimensional
Q: Questionable
I: Indifferent

Figure 5 Kano evaluation (Sauerwein, 1999)

Results and Discussions

4 centers randomly picked up from both northern and southern part of India (Bangalore, Delhi, Delhi NCR & Mumbai) and their medical facilities, costs and what made patients to choose a particular hospital has been studied. Randomly picked up patients from outpatient and inpatient basis over a period from 15th March 2018 till 15 February 2021. Total of 2600 patients from outpatient and 1686 patients from inpatient of 4 hospitals in which patients are from both medical and surgical branches as shown in Table 1 & 2; Figure 1 & 3, which shows monthly visits of outpatient (OPD) and In patient (IPD) admissions and visits (Figure 6). Patients from OPD and IPD were chosen from cardiac, cardiac surgery, medical as well as surgical gastroenterology, neurology, nephrology with urology, gynecology and general health checkups as shown in Table 3 & 4 and Figure 7& 8, which shows the OPD & IPD patients who visited the hospital annually. About 18% are for routine health checkup, 52% were for medical management and 30% of overall patients are for surgical management. A basic analysis of demographic characteristics shows that 54% of the respondents were female and 46% were male (Figure 9 & 10). 32% of the respondents were between the ages of 18 to 34, 20% of them were between 35 and 54. The remaining 48% respondents were in the age group of 55 years old or above. Patients were having dissatisfaction in OPD were analyzed and found to have difficulty in language, interpreter availability which were 36%. The IPD patients were unsatisfied in hospitals who didn't provide proper international diet, difficulty to communicate with the nurses, difficulty in expressing the acute problems which accounted for 42%. In COVID era after starting of international flights, outpatients decreased to 49% and IPD admissions decreased to 52%. The electronic communication had developed in the COVID era when the international flights were stopped. The e-clinic has shown the change in mode of approach of patients which help them in direction for appropriate treatment. The e communication had played Major role in COVID times and had balanced the service quality, by acting like a back bone for hospital services via online video consultations for non-emergency OPD cases which accounted for 58% when compared to non-COVID OPD analysis.

Table 1: Number of OPD patients in 4 centers from March 2018- February 2021

HOSPITAL OUT PATIENT DEPARTMENT (OPD)	DATA FROM MARCH 2018 - FEBRUARY 2021				p-value					
MONTH	YEAR 2018 (n=99 0)	YEAR 2019 (n=11 80)	YEAR 2020 (n=31 0)	YEAR 2021 (n=12 0)	YEA R (201 8 Vs 201 9)	YEA R (201 8 Vs 2020)	YEA R (201 8 Vs 2021)	YEA R (201 9 Vs 2020)	YEA R (201 9 Vs 2021)	YEA R (202 0 Vs 202 1)
January	-	108(9 .2%)	90(29 %)	80(66 .7%)	-	-	-	<0.0 001*	<0.0 001*	<0.0 001*
February	-	100(8 .5%)	80(25 .8%)	40(33 .3%)	-	-	-	<0.0 001*	<0.0 001*	<0.0 001*
March	120(12 .1%)	115(9 .7%)	-	-	0.0 77	-	-	-	-	-
April	100(10 .1%)	108(9 .2%)	-	-	0.45 3	-	-	-	-	-
May	80(8.1 %)	104(8 .8%)	-	-	0.54 2	-	-	-	-	-
June	90(9.1 %)	115(9 .7%)	-	-	0.60 3	-	-	-	-	-
July	110(11 .1%)	110(9 .3%)	-	-	0.1 68	-	-	-	-	-
August	90(9.1 %)	90(7. 6%)	-	-	0.21 9	-	-	-	-	-
September	130(13 .1%)	100(8 .5%)	20(6. 5%)	-	0.00 04*	0.00 1*	-	0.24 6	-	-
October	100(10 .1%)	80(6. 8%)	40(12 .9%)	-	0.00 5*	0.16 5	-	0.00 04*	-	-
November	120(12 .1%)	50(4. 2%)	30(9. 7%)	-	<0.0 001*	0.23 8	-	0.00 02*	-	-
December	50(5.1 %)	100(8 .5%)	50(16 .1%)	-	0.0 02*	<0.0 001*	-	0.00 01*	-	-
TOTAL NUMBERS OF THE PATIENT =										
2600										

*p-value < 0.05, statistically significant

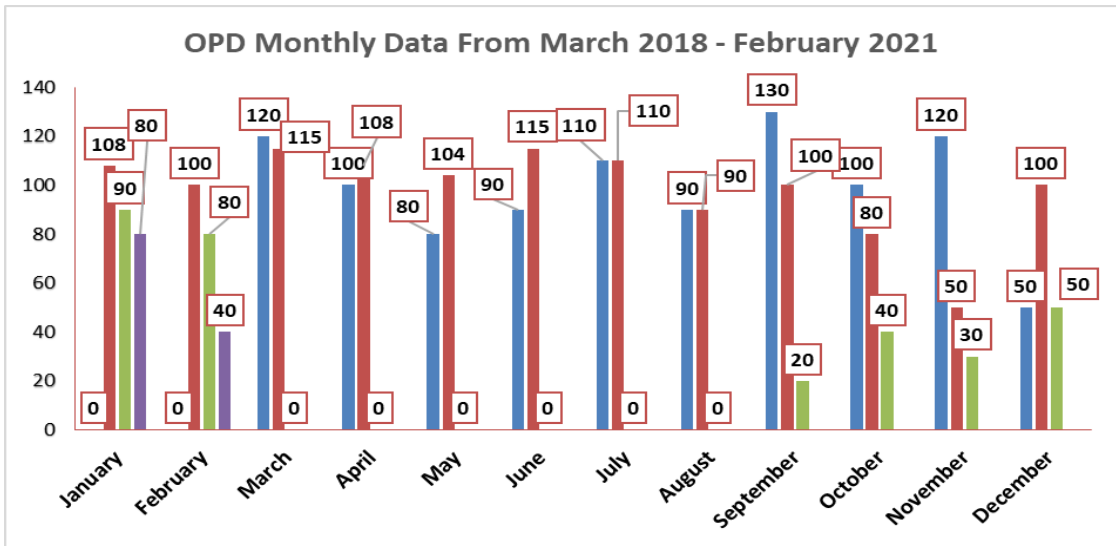


Figure 6: Number of OPD patients in 4 centers from March 2018- February 2021

Table 2: Number of IPD patients in 4 centers from March 2018- February 2021

HOSPITAL IN PATIENT DEPARTMENT (IPD)	DATA FROM MARCH 2018 - FEBRUARY 2021				p-value					
	YEAR 2018 (n=690)	YEAR 2019 (n=896)	YEAR 2020 (n=100)	YEAR 2021	YEAR (2018 Vs 2019)	YEAR (2018 Vs 2020)	YEAR (2018 Vs 2021)	YEAR (2019 Vs 2020)	YEAR (2019 Vs 2021)	YEAR (2020 Vs 2021)
January	-	78(8.7%)	40(40%)	-	-	-	-	<0.0001*	-	-
February	-	86(9.6%)	30(30%)	-	-	-	-	<0.0001*	-	-
March	70(10.1%)	85(9.5%)	10(10%)	-	0.66	0.968	-	0.865	-	-
April	62(9%)	82(9.2%)	-	-	0.912	-	-	-	-	-
May	80(11.6%)	80(8.9%)	-	-	0.08	-	-	-	-	-
June	85(12.3%)	92(10.3%)	-	-	0.197	-	-	-	-	-
July	86(12.5%)	88(9.8%)	-	-	0.095	-	-	-	-	-
August	83(12%)	94(10.5%)	-	-	0.337	-	-	-	-	-
September	70(10.1%)	70(7.8%)	-	-	0.105	-	-	-	-	-
October	63(9.1%)	64(7.1%)	-	-	0.147	-	-	-	-	-
November	51(7.4%)	42(4.7%)	15(15%)	-	0.023*	0.010*	-	<0.0001*	-	-
December	40(5.8%)	35(3.9%)	5(5%)	-	0.07	0.749	-	0.596	-	-

	%)	%)			8				
TOTAL NUMBERS OF THE PATIENT = 1686									

*p-value < 0.05, statistically significant

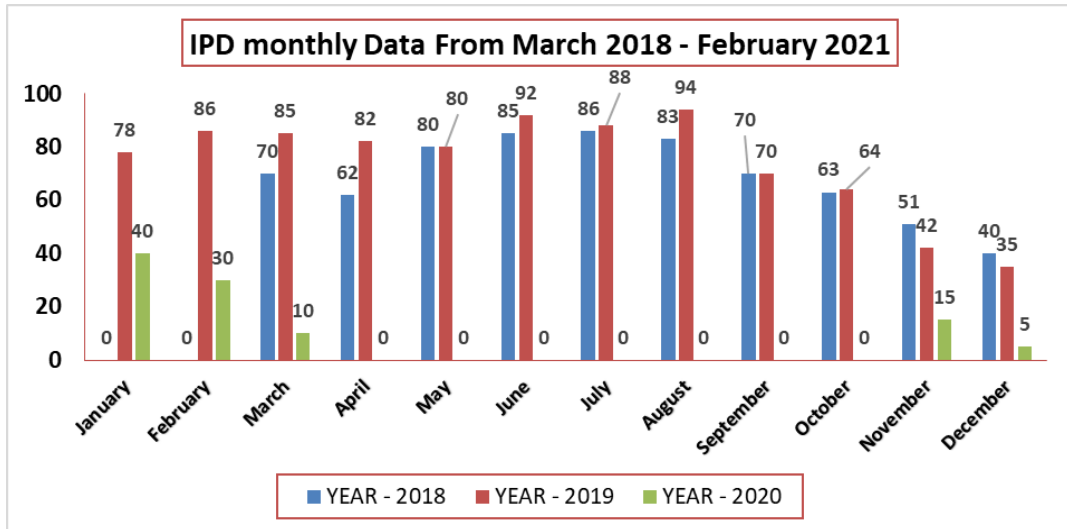


Figure 7: Number of IPD patients in 4 centers from March 2018- February 2021

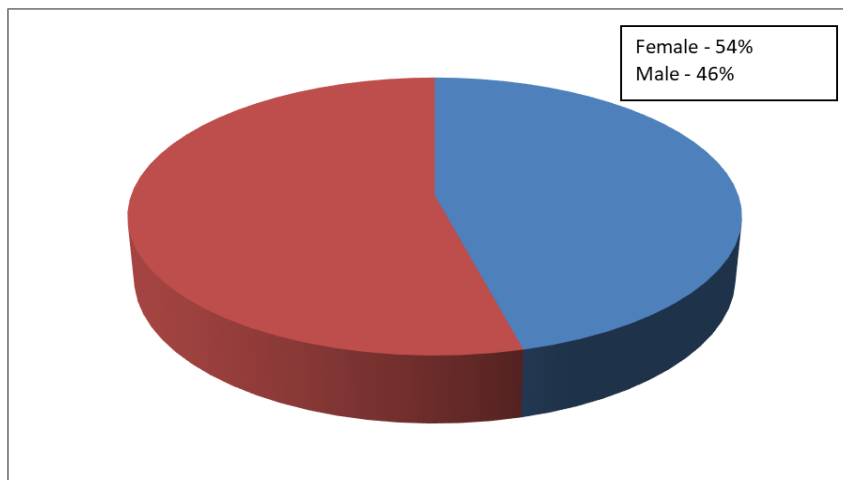


Figure 8: Gender Demographics

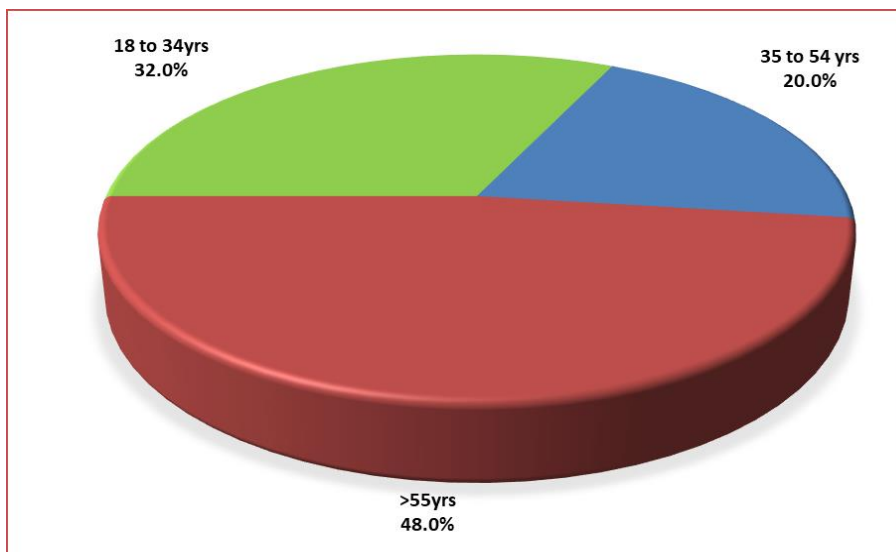


Figure 9: Responders According to Age

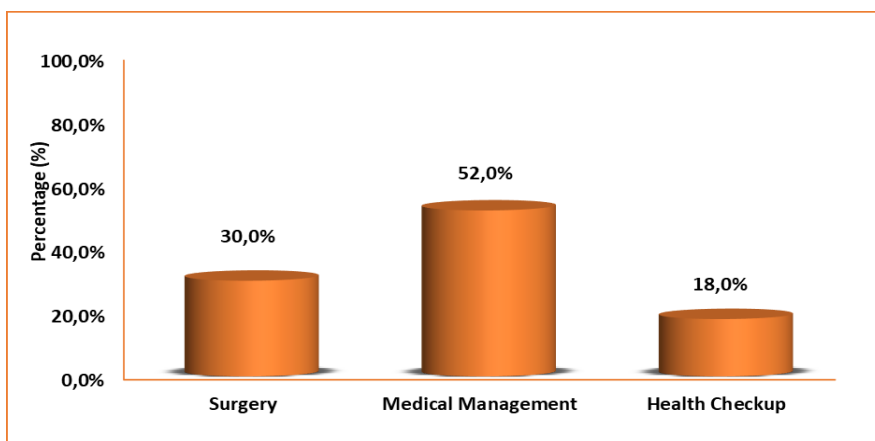


Figure 10: Came for surgery done vs medical management vs health check up

Table 3: Number of OPD patients according to departmental wise of 4 centers from March 2018- February 2021

HOSPITAL OUT PATIENT DEPARTMENT (OPD)	YEARLY				p-value					
	YEAR 2018 (n=990)	YEAR 2019 (n=1180)	YEAR 2020 (n=310)	YEA 2021 (n=120)	YEAR (2018 Vs 2019)	YEA R (2018 Vs 2020)	YEA R (2018 Vs 2021)	YEA R (2019 Vs 2020)	YEA R (2019 Vs 2021)	YEAR (2020 Vs 2021)
CARDIAC SCIENCES (CARDIOLOGY, CARDIAC SURGERY)	130(13.1%)	220(18.6%)	60(19.4%)	28(23.3%)	0.0005*	0.007*	0.003*	0.772	0.211	0.358

GASTROENTROLOGY, GASTRO INTESTINAL SURGERY & LIVER TRANSPLANT SURGERY	360(36.4%)	310(26.3%)	88(28.4%)	30(25%)	<0.0001*	0.010*	0.014*	0.453	0.764	0.478
NEUROLOGY & NEURO SURGERY	110(11.1%)	180(15.3%)	70(22.6%)	15(12.5%)	0.0045*	<0.0001*	0.653	0.002*	0.418	0.019*
UROLOGY, NEPHROLOGY & KIDNEY TRANSPLANT SURGERY	270(27.3%)	368(31.2%)	56(18.1%)	40(33.3%)	0.042*	0.001*	0.162	<0.0001*	0.631	0.0006*
GYNAECOLOGY & GYNAEC-SURGERY	118(11.9%)	100(8.5%)	30(9.7%)	7(5.8%)	0.008*	0.28	0.0466	0.503	0.317	0.204
GENERAL/MEDICAL HEALTH CHECK-UPS	2(0.2%)	2(0.2%)	6(1.9%)	-	0.857	0.0006*	-	0.0002*	-	-
TOTAL NUMBERS OF THE PATIENT = 2600										

*p-value < 0.05, statistically significant

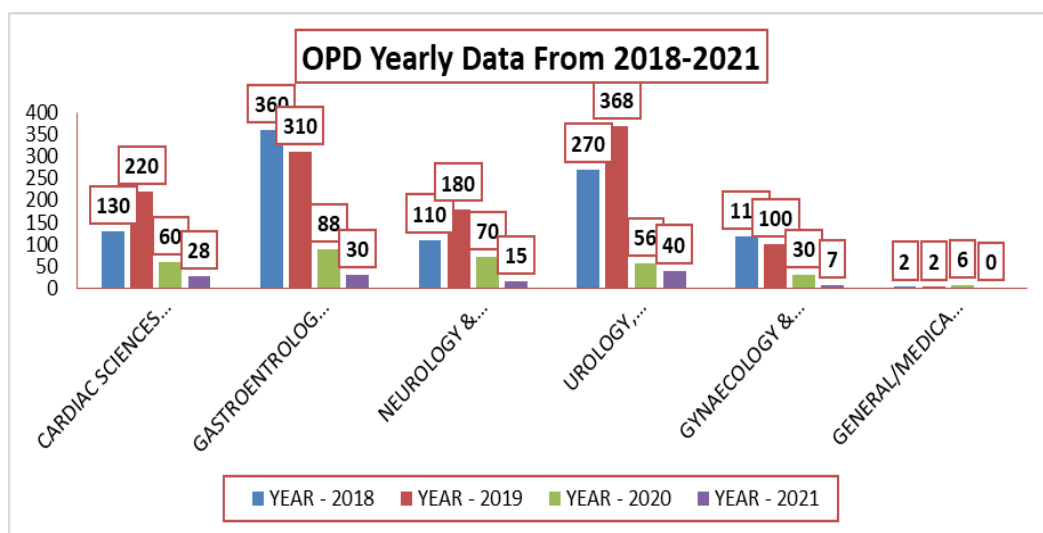


Figure 11: Number of OPD patients according to departmental wise of 4 centers from March 2018- February 2021

Table 4: Number of IPD patients according to departmental wise from 4 centers from March 2018- February 2021

HOSPITAL IN PATIENT DEPARTMENT (IPD)	YEARLY				p-value					
	YEAR 2018 (n=690)	YEAR 2019 (n=896)	YEAR 2020 (n=100)	YEAR 2021	YEAR (2018 Vs 2019)	YEAR (2018 Vs 2020)	YEAR (2018 Vs 2021)	YEAR (2019 Vs 2020)	YEAR (2019 Vs 2021)	YEAR (2020 Vs 2021)
CARDIAC SCIENCES (CARDIOLOGY, CARDIAC	108(15.7%)	184(20.5%)	14(14%)	-	0.013*	0.667	-	0.121	-	-

SURGERY)										
GASTROENTROLOGY, GASTROINTESTINAL SURGERY & LIVER TRANSPLANT SURGERY	180(26.1%)	244(27.2%)	30(30%)	-	0.61	0.407	-	0.555	-	-
NEUROLOGY & NEURO SURGERY	118(17.1%)	140(15.6%)	10(10%)	-	0.429	0.072	-	0.136	-	-
UROLOGY, NEPHROLOGY & KIDNEY TRANSPLANT SURGERY	198(28.7%)	228(25.4%)	28(28%)	-	0.147	0.889	-	0.582	-	-
GYNAECOLOGY & GYNAEC-SURGERY	83(12%)	98(10.9%)	-	-	0.497	-	-	-	-	-
GENERAL HEALTH CHECK-UPS	3(0.4%)	2(0.2%)	18(18%)	-	0.453	<0.0001*	-	<0.0001*	-	-
TOTAL NUMBERS OF THE PATIENT = 1686										

*p-value < 0.05, statistically significant

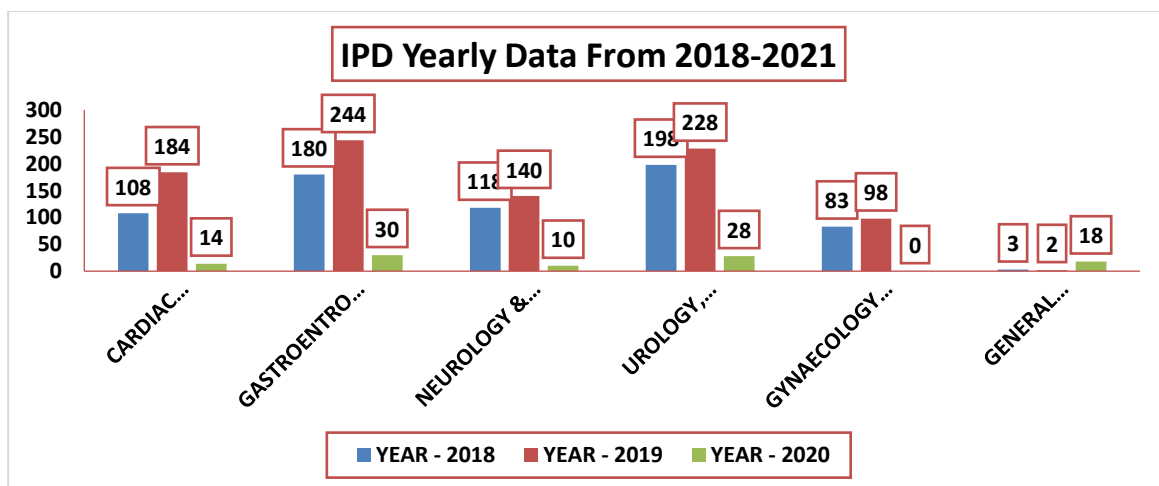


Figure 12: Number of IPD patients according to departmental wise from 4 centers from March 2018- February 2021

Final Quality analysis for successful Medical Tourism

After analyzing the feedback forms and patient counselling, a detail analysis was done and corresponding items was made as shown in Table 5, for quality improvement of hospitals for successful medical tourism. The first most important is the single person contact at a hospital who can guide and allot appropriate contact that patient go for. The online services are key for patient knowledge to improve and understand the disease and go to specific branch. The medical tourists should be properly educated about the costs and over all expenses.

Table 5: Final Quality analysis for successful Medical Tourism

Categories	Corresponding items
1. Hospital Information and facilities	<p>1 Hospital contact information (e.g., address, phone and email) 2 Hospital statement of purpose (e.g., mission or vision)</p> <p>3 Photos or videos featuring the hospital facilities and technology</p> <p>4 Getting to the hospital: Ground transportation arrangements (e.g., pick-up from airports or home)</p> <p>5 Getting to the hospital: Travel arrangements/bookings 6 Getting to the hospital: Entry visa assistance</p> <p>7 Getting to the hospital: Partnerships with travel agents or hotels</p> <p>8 Patient privacy information</p> <p>9 Patient's rights and obligations</p> <p>10 Patient feedback (e.g., testimonials and survey results)</p> <p>11 On-site language interpretation services</p> <p>12 Food arrangements specific to international patients</p> <p>13 On-site pharmacy and prescription assistance</p> <p>14 On-site facilities for patients' companions (e.g., family lounge, accommodation within facility, etc.)</p> <p>15 Off-site accommodation arrangements for patients' companions and outpatients</p>
2. Admission and medical services	<p>16 Estimated costs (medical and hospital fees) 17 Billing information</p> <p>18 Health insurance accepted (incl. affiliated insurers)</p> <p>19 Payment information and facilities (e.g., credit cards accepted)</p> <p>20 Foreign currency exchange information and facilities</p> <p>21 Inpatient accommodation</p> <p>22 Medical specialties/areas of excellence 23 Medical staff descriptions</p> <p>24 Appointment booking</p> <p>25 post-discharge arrangements</p>
3. Interactive online Services	<p>26 Interactive tools for online enquiries</p> <p>27 Pre-admission consultations at a distance (Online or by phone)</p> <p>28 Medical records available via the Internet</p> <p>29 Links to online forums for patient feedback and social networking (e.g., Twitter and Facebook)</p> <p>30 Links to additional online venues for information generated by or about the hospital (e.g., YouTube and blogs)</p>
4. External Activities	<p>31 Healthcare joint ventures, international affiliations and overseas referral networks with other hospitals</p> <p>32 Referral services for international physicians (Via teleconference, online enquiries or phone) 33 Links to relevant agencies/tourist attractions</p>

5. Technical items	34 Site map present 35 Site-wide search tool present 36 Availability of alternative language options for the website (besides English) 37 Website accessibility for people with sensorial disabilities 38 Live (no broken) web links
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Web based analysis

Web based analysis of the corresponding items from 4 randomly picked up hospital were done, which were available online were studied and final results were charted in Table 3.6. The hospitals with JCI and NABH maintain well quality management. The websites alternate different languages other than English must be developed and online phone/video consultation must be improved. The hospital and home pickup must be available as in northern sector hospitals which will be patient friendly atmosphere to gain confidence over hospital management.

Table 6: Web based analysis of the corresponding items

Corresponding items	Hospital 1 (Delhi NCR)	Hospital 2 (Mumbai)	Hospital 3 (Banglore)	Hospital 4 (Delhi)
A. Hospital Information and facilities				
1 Hospital contact information				
a) Address	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Email	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Hospital statement of purpose				
a) Mission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Vision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Core Values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Photos or videos featuring the hospital facilities and technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Getting to the hospital: Ground transportation arrangements				
a) pick-up from airports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) pick-up from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5 Getting to the hospital:				
a) Travel arrangements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) bookings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Getting to the hospital: Entry visa assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Getting to the hospital: Partnerships with travel agents and hotel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Patient privacy information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Patient's rights and obligations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Patient feedback				
a) Testimonials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 On-site language interpretation services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Food arrangements specific to international patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 On-site pharmacy and prescription assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 On-site facilities for patients' companions				
a) family lounge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) accommodation within facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 Off-site accommodation arrangements for				
a) patients' companions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) outpatients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Admission and medical services				
16 Estimated costs				
a) Medical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Hospital Fees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 Billing information				
18 Health insurance accepted (incl. affiliated insurers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 Payment information and facilities				
a) Cash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Credit cards accepted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 Foreign currency exchange information and facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Inpatient accommodation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Medical specialties/areas of excellence				
a) Doctors' strength	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Beds Facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 Medical staff descriptions	<input type="checkbox"/>			
24 Appointment booking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25 Post-discharge arrangements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Interactive online services				
26 Interactive tools for online enquiries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 Pre-admission consultations at a distance				
a) by online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) by phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 Medical records available via the Internet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 Links to online forums for patient feedback and social				

networking(e.g., Twitter and Facebook)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 Links to additional online venues for information generated by or about the hospital (e.g., YouTube and blogs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. External activities				
31 Healthcare joint ventures, international affiliations and overseas referral networks with other hospitals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 Referral services for international physicians				
a) teleconference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) online enquiries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 Links to relevant agencies/tourist attractions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Technical items				
34 Site map present	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 Site-wide search tool present	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36 Availability of alternative language options for the website (besides English)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37 Website accessibility for people with sensorial disabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38 Live (no broken) web links	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

India has high potential for attracting medical tourists, and this country could become one of the best countries in medical tourism, as in 2016, according to the Medical Tourism Index, India ranked fifth in the world's leading medical tourism countries. India is ranked first in the field of medical tourism industry. India is one of the world's top destinations for the medical tourism industry because of potentials for up-to-date medical equipment, excellent doctor's knowledge, good doctor's experience, in treating certain diseases, updated hospitals with global credentials including JCI and NABH, a high-quality level Treatment, global standard labs etc.

Medical tourism is growing in the world but Asia, especially South East Asia, is emerging as a popular destination for medical tourism. Asia is one of the first regions in the world to promote medical tourism and has created a brand name for itself for having affordable and high-quality healthcare. The medical tourists' arrivals to Asia are expected to cross 10 million by 2017. Three countries, Thailand, India and Singapore, are expected to control more than 80 percent market share in 2017. India had 170,000 international patients from Bangladesh, Maldives, Afghanistan, Iraq and Nigeria to get treatment such as Cardiology, orthopedics, nephrology, oncology, and neuro surgery.

Literature review showed that India ranks 10th place internationally according to Medical Tourism Index (MTI) during the year 2020 -2021. COVID pandemic has

effected medical tourism in India. MTI rankings from 2017 till 2020 were not documented in any articles in literature, however during 2015 India was ranking 5th place and in 2016 it was 12th. There was substantial fall in ranking during 2015 and 2016. Reasons were not documented. Further detail literature review, we couldnot able to find the MTI of 2017 till 2019. Though World wide lockdownwould have effected all countries, but a detail analysis was not been done in any part of country. MTI depends on following factors like How the country environment is?, Is it a Tourism destination?, Medical Tourism costs and Medical facility with services.

A fundamental characteristic of medical tourism is its combination of medical services and the tourism industry. As these cannot be studied as two separate entities, there does exist a degree of synthesis between medical services and tourism. This degree of synthesis should therefore be taken into account as one defines medical tourism (Yu, Lee and Noh, 2011)⁵⁴. George, Henthorneand Williams (2010) point out that for the preventive medical tourists, satisfaction is depending on the provision of tourist services and dissatisfaction depends on provision of medicinal services⁴.

George, Henthorneand Williams (2010) claim that in order to research medical tourism it should be segmented in the type of medical care that is needed for the customers⁴. For example; medical tourists are divided in preventive medical tourists and curative medical, in contrast, for the curative medical tourists, satisfaction depends on provision of medicinal services and dissatisfaction depends on provision of tourist services.

Conclusion

This study suggests that both medical and tourism aspects are significantly important for medical tourists; Despite some literature indicating only medical services are important for medical tourism satisfaction and believes that tourism servicesare not relevant. Overall, this study contributes to the general understanding of medical tourism concept via the emerged frame of reference. The emerged framework was helpful in understanding customer's opinion in medical tourism industry according to not only satisfying but dissatisfying factors.

Thus the outcomes of the study show that combined provision of medical care and leisure concepts to medical tourism market is not avoidable. This study has also looked at a topic that is relatively new and requires further research. The approach employed in this study regarding Kano's categorization model can help medical tourist providers to improve the medical tourism service requirements in regards to first and foremost attributes. The medical tourism is huge and competitive industry that needs to investigate the ways to increase customers' satisfaction. Since satisfied customers tend to be loyal and will promote the market with positive word-of-mouth recommendations.

By grouping customers according to their demographic information, it was found that different groups of medical tourists have different attitude toward satisfying or dissatisfying factors. Consequently From a marketing view, medical tourist providers may focus on different customer segments and fulfill their expectations,

in order to enhance their satisfaction. Furthermore, all different medical tourism sectors such as hotels, travel agencies, hospitals and health care organizations and even government need to consider the results of such relevant studies to increase medical tourist's satisfaction in the country.

Services should be planned for and continuously adapted to meet requirements and expectations for target medical tourists and their ability to pay. According to achieved results, fundamental initiatives must be planned in order to provide strategic synergy between both government and private organizations to systematically explore and exploit medical tourism opportunities in India. They should allocate adequate resources and manage the medical tourism marketing campaign to attract the potential medical tourists to the country. Many patients had faced challenges in accommodation, language differences and most of patients had given satisfaction if the nurse's quality are good in Inpatient group including food in international standards. Medical tourism was effected during COVID era. India was chosen by many countries as economically feasible. Patient satisfaction is the key for improvement of medical tourism.

Medical Tourism has had a tremendous impact on the healthcare system. It has allowed for development of expertise in specialty treatments at various destinations across the world. Medical Tourism has helped fund research and development activities in the healthcare industry. It has also attracted further investments for development of infrastructure and service capabilities of popular service providers. Globalization, communication revolution, and better logistic connectivity has allowed for patients to reach remote pockets of the world that offer necessary specialty services with excellence.

Rise in Medical Tourism has also added to rich exchanges of cultures and traditions between the visiting and the local populations. It helps spread a positive word and raises awareness amongst people across borders. This in turn increases the flow of Medical Tourists across borders and initiates an exchange of healthcare techniques as well. The healthy exchange of information and practices helps improve the services further and creates a sustainable growth pattern.

There are various factors that will contribute to the flow of Medical Tourism in developing countries: opportunity to vacation, privacy and anonymity, fewer waiting lines, and some procedures that are not offered in developed countries. It will be fascinating to observe the trend set down by the next generation of Medical Tourists and the factors that they might consider more important than others. For example, online research was one of the major tools used for searching information on Medical Tourism, and it might continue to grow in importance by the potential medical patients who will consider travelling in the near future. Despite the opportunities and growth of Medical Tourism industry, there are a few limitations that have resulted in comprehension of medical travelers. Some of them are lack of primary knowledge, health insurance companies does not cover all costs, weak malpractice laws in developing countries, hindrances to obtain follow-up care, and outbreak of disease and rebellious attacks.

Medical costs, high insurance premiums, increasing number of uninsured and insured people in developed nations, long waiting period in the home

country, availability of high quality healthcare services at affordable rate, and internet/communication channels in developing countries, cheaper air fares, and tourism aspects are the driving forces of the outbound Medical Tourism. India has always been known for its rich heritage of 'Wellness' traditions and has enormous possibilities to offer to 'Wellness' seekers. The Indian 'Wellness' industry is one of the fastest growing segments of the travel and leisure industry. India has the potential to become a leading 'Wellness' and Medical destination for the global travelers. Therefore, there is a need to position India as preferred destination for Wellness and Medical Tourism, wellness being an integral part of the Indian way of life.

This study has the following limitations to inform future research. First, this study has focused on only four hospitals, which of course limits this study. In addition regarding to the time constraints and the special requirements for the respondents such as being in an acceptable condition to answer the questions, the questionnaire could not be delivered to a large number of medical tourists. Second, the focus has been on the patients currently staying at these four hospitals and excluded the outpatients and potential patients such as the U.S. or European residents as well.

Suggestions for Further Research

For a future research, the number of respondents should be increased so that the reliability of analysis results can be improved. In addition, a quantitative approach could also be interesting in order to find out the relation between the different attributes. The study was also limited to four hospitals located in different cities. Future research should comparatively investigate more hospitals tied to medical tourism in other cities to determine whether these results can be generalized across the country.

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