Widening Vistas of Healthcare Tourism in India – An Analytical Study

Dr. Vikram K. Joshi

Assistant Professor – DMT

Shri Ramdeobaba College of Engineering and Management, Nagpur

Email: vikramkjoshi@gmail.com

Abstract

India is emerging as the destination of choice for a wide range of medical procedures for wide variety of foreign patients looking for healthcare services. Looking at very high diversification of the sector in terms of high potential to create employment opportunities for the budding job-seekers and entrepreneurs other than medico profession, the present study is an attempt to analyse the performance of healthcare tourism in India. The study is based on the secondary data obtained from the website of Ministry of Tourism, Government of India. The study concludes that the government of India and healthcare industry should take necessary initiatives for promoting and attracting the untapped potential, so that the commercial economies will be enjoyed by the sector. This will not only create the employment opportunities for the stakeholders, but will also lead to better investments in enrichment of the existing resources.

Keywords: Medical tourism, Tourists arrivals, Inbound tourism.

DOI Number: 10.14704/nq.2022.20.9.NQ44244 **Neuro Quantology 2022; 20(9):2100-2106**

Introduction

Technology innovations and digitization is changing the landscape of India in terms of growing business opportunities and evolving new sources of revenue generation. Medical Tourism (MT) is one such business model for Indian corporates in healthcare sector as well as tourism companies who design tour packages for the ailing patients. India is very much known for its ancient therapies which includes Ayurveda, Yoga, Meditation and therapeutic Message. India is an exotic tourist destination offering everything from beaches, mountains, quaint villages, cosmopolitan cities and pilgrimages to suit every palate. Thus, India is an oasis providing complete health and well being while providing the latest in technology.

India is increasingly emerging as the destination of choice for a wide range of medical procedures and medical tourism has become a common form of vacationing which mixes leisure, fun and relaxation together with wellness and healthcare. There are few Asian countries like Thailand, Singapore, etc., which have good hospitals, salubrious climate, advanced medical facilities, build-in-tourism options and tourist destinations, the rapid emergence of Indian corporate healthcare sector is able to grab a good share in the pie for treatment purpose. This is possible due to a large pool of highly trained doctors, low treatment cost, high-tech equipment and better nursing facilities. Also, language – English is widely spoken throughout the country and in all good hospitals and lower waiting time for any treatment in India than any other country are the added advantages.

There are several medical tourism companies in India which are designing and providing customized packages for patients travelling to India. Also, there is an Indian Medical Tourism Association for medical tourism which works with governments, healthcare workers, insurance companies etc., with for providing high quality transparent healthcare services. Even the doctors are willing to help patients abroad and make them feel comfortable through such companies/association. Thus, there is a very high diversification of this sector in terms of job profiles and holds high potential to create employment opportunities for the

budding job-seekers and entrepreneurs other than medico profession. The key actors in revenue generation may be Indian hospitals – management and administration, travel and tour operators, small entrepreneurs, hospitality sector, travel agents, local tourist guides, hotels and local markets. (Bansal et. al. 2014). Thus, the fast-growing Indian corporate healthcare sector is fully geared for setting up what could be a medical renaissance in the country. So, it is necessary understand the present state of growth of medical tourism in India. Hence, the objective of the present study is to analyse the growth of healthcare tourism in India in terms of inbound travellers, foreign patients traffic nationality-wise and country-wise and cost effectiveness of India in terms of various surgical treatments. The rest of the paper is organized as below: Section 2 discusses the literature review, Section 3 covers the methodology and data, Section 4 is results and discussions and Section 5 concludes.

Literature Review

Valorie et. al. (2011) conducted thematic content analysis of the print material distributed in medical tourism trade show as a part of promotional activity in Canada in 2009. They evaluated these materials and revealed certain issues of concern about the varied claims made by the various medical tourism companies like exaggerated promotional materials indicating use of advanced technologies, portraying safe and advanced treatment facilities and creating suspicion amongst the potential patient about the inferior quality in their own countries, cost saving claims by the companies and quality related concerns. Thus, maintaining transparency while promoting such facilities is essential as part of healthy and fair practices.

Dawn & Pal (2011) in the study mentioned key competitive advantages and key concerns about the medical tourism industry in India. The advantages are low cost, good reputation in the healthcare segment and diversity of tourists' destinations. The concerns are lack of government initiative, no accreditation mechanism for hospitals, lack of uniform pricing policies and strategies across hospitals and lack of coordinated efforts to promote the industry. These concerns must be addressed for giving boost to the industry.

Shanmugam (2013) pointed out that India is a prominent play in the healthcare industry with varied advantages like low cost of treatment, many internationally accredited hospitals, world class exposure to many doctors and medical staff and fluency in English. The issues of concern are lack of regulations, lack of coordination amongst the plays in the sector, low investment in infrastructure, unethical professional behaviour, high inequalities between private and public system in healthcare access and domestic brain drain from public to private hospitals.

Rai et. al. (2014) in the study pointed out that there is a lot of opportunity to attract the foreign tourists from developed economies like USA, UK, Germany, France and Canada as the cost of treatment is very high and waiting time for treatment is very long resulting in outbound demand for medical tourism.

Reddy & Qadeer (2010) pointed out that the policy of medical tourism is urban-centric and pointed out certain implications of these measures. They raised the concern associated with accessibility, affordability and ethics in medical care. Also, they posed the question that in whether it is appropriate for a democratic welfare state to promote the medical tourism where proper public healthcare facilities for masses are not available.

Methodology and Data

The present study uses the secondary data available on website of Ministry of Tourism, Government of India during 2010 to 2020. The data is compiled and computed from the Indian Tourism Statistics Reports from 2011 to 2021 available on the website of the Ministry. For analysing the annual average growth of arrivals for medical purpose, semi-log regression model regressed over time trend and for measuring the annual average growth of percentage contribution linear regression model regressed over time trend is used.

Results and Discussions

The medical tourism industry of India has a potential to increase by leap and bounds in near future. The review of performance of this industry is presented below:

Inbound Tourism in India – Total vs Medical Purpose

The total number of arrivals in India and arrivals for medical purpose is presented below in table 1:

Table 1: Inbound Tourism vs Medical Tourism

Year	Total Arrivals	Arrivals for Medical Purpose	% Contribution
2010	5775692	155943.684	2.7
2011	6309222	138802.884	2.2
2012	6577745	171021.37	2.6
2013	6967601	236898.434	3.4
2014	7679099	184298.376	2.4
2015	8027133	361220.985	4.5
2016	8804411	427013.934	4.85
2017	10035803	494765.088	4.93
2018	10557976	644036.536	6.1
2019	10930355	697356.649	6.38
2020	2744766	186644.088	6.8
Growth from 2010-19	89.24%	347.18	--
Source: Compiled from India Tourism Statistics 2011-2021 (Ministry of Tourism, GOI).			

It is observed that the total arrivals in India have increased significantly from 2010 to 2020. A simple growth rate is calculated from 2010 to 2019 (since 2020 was a Covid-19 pandemic year), shows that total arrivals increased by 89.24%. During the same period, the travellers for medical purpose have increased by whopping 347.18%. This shows the increased preference towards India as the destination for healthcare by foreign patients. The percentage contribution of medical tourism also increased significantly from 2.7% to 6.8% during 2010 to 2020. Thus, it can be inferred that the trust of foreign patients coming for healthcare tourism is increasing which is evident from the flow of tourist in India.

Regression Analysis for Forecasting the trend

To get better insights into average annual growth in arrivals in India for healthcare tourism, semi-log regression model is fitted over trend (time period) and linear regression model is fitted over % contribution over trend from 2010 to 2020. The results are presented below in table 2 and table 3:

Table 2: Arrival for Medical Purpose vs Trend

Dependent variable: l_ArrivalsforMedicalPurpose using observations 2010-2020 (T = 11)

	coefficient	std. error	t-ratio	p-value
Constant	11.8182	0.292521	40.40	1.74e-011 ***
time	0.124060	0.0431298	2.876	0.0183 **
	R-squared	0.478981	Durbin-Watson	1.439747
	F(1, 9)	8.273840	P-value(F)	0.018284
Source: Authors Computation				

It is seen that time trend is significant at 1% level of significance, F-statistics showing the goodness of fit of the model is significant at 5%, no autocorrelation in the series as Durbin-Watson statistics is near to 2 and R-sq value is moderately high. The coefficient of time is 0.1240 indicating 12.40% average annual rise from 2010 to 2020 indicating substantial rise per annum. Also, the percentage contribution is regressed over trend and is presented in table 3 below:

Table 3: % Contribution for Medical Purpose vs Trend

Dependent variable: Contribution using observations 2010-2020 (T = 11)

	coefficient	std. error	t-ratio	p-value
Constant	1.35655	0.377053	3.598	0.0058 ***
time	0.483909	0.0555934	8.704	1.12e-05 ***
	R-squared	0.893827	Durbin-Watson	2.152559
	F(1, 9)	75.76719	P-value(F)	0.000011
Source: Authors Computation				

It is found that percentage contribution is increasing by 0.48% per annum for healthcare tourism which indicates substantial rise in percentage every year. The goodness of fit criteria is fulfilled as F-statistics is significant, R-sq value is high and no autocorrelation in the series as DW statistics is close to 2. This indicates a high potential for this sector in years to come. Thus, the government must equip with appropriate regulations so that the procedural part will be smooth and hassle free for the foreign travellers. This will create multiplier effect in the market of India in terms of employment generation and revenue earnings for all the potential stakeholders.

Nationality-Wise Foreign Tourist Arrivals in India, 2018-2020

To understand the nature of traffic of foreign patients' arrival for healthcare tourism the nationality-wise foreign tourists from country of origin is evaluated for last three years, i.e., from 2018 to 2020 and the results are presented as below in table 4:

Table 4: Country of Nationality & Foreign Tourists Arrivals during 2018-20

Country of Nationality	Total Number of Arrivals			Medical Purpose			Medical Purpose		
	2018	2019	2020	2018	2019	2020	2018	2019	2020
North America	1807718	1863892	516960	19884.898	1677.5028	516.96	1.1	0.09	0.1
Central and South America	101085	98926	26968	606.51	168.1742	26.968	0.6	0.17	0.1
Western Europe	2243635	2178441	624615	17949.08	2178.441	624.615	0.8	0.1	0.1
Eastern Europe	466049	456481	168145	19574.058	23508.772	5716.93	4.2	5.15	3.4
Africa	351198	362308	90296	51274.908	52389.737	17607.72	14.6	14.46	19.5
West Asia	449548	431943	97651	108790.62	96668.843	29197.649	24.2	22.38	29.9
South Asia	3104422	3375819	750061	403574.86	441557.13	131260.68	13	13.08	17.5
South East Asia	887088	930540	231622	10645.056	5955.456	0	1.2	0.64	0
East Asia	724568	782225	130383	2173.704	391.1125	130.383	0.3	0.05	0.1
Australasia	412628	438939	105047	4951.536	2194.695	420.188	1.2	0.5	0.4
Not Classified elsewhere	10037	10841	3018	110.407	121.4192	458.736	1.1	1.12	15.2
Grand Total	10557976	10930355	2744766	644036.54	697356.65	186644.09	6.1	6.38	6.8
Source: India Tourism Statistics 2011-2021 (Ministry of Tourism, GOI).									

It can be seen that the highest percentage of arrivals for healthcare tourism are from West Asia followed by Africa, South Asia and Eastern Europe. From rest of the countries the contribution is marginal which include Australasia, South East Asia, North America, Western Europe and Central and South America. These are the potential countries from where the patients must be targeted for growth of this industry. India is very known for hospitality services, so the efforts must be taken to attract the patients from the untapped countries. Thus, it can be inferred that huge potential is still untapped and the efforts are required in this direction.

Distribution of foreign tourists' arrivals from leading countries for medical purpose during 2017 to 2020

To understand the flow of foreign tourists arriving for medical treatment from different countries, the country-wise nature of traffic of foreign travellers for healthcare tourism is analysed during the year 2017 to 2020 and is presented below in table 5:

Table 5: Foreign Travellers from Leading Countries for Medical Tourism (2017-2020)

Nationality	2017	2018	2019	2020	Nationality	2017	2018	2019	2020
Bangladesh	44.79%	50.34%	57.53%	54.33%	New Zealand	0.02%	0.10%	0.02%	0.02%
Iraq	9.62%	9.25%	8.07%	9.12%	China	0.01%	0.12%	0.02%	0.01%
Maldives	9.16%	2.12%	7.31%	6.06%	Netherlands	0.02%	0.10%	0.02%	0.04%
Afghanistan	11.25%	7.31%	4.73%	8.87%	Italy	0.01%	0.12%	0.02%	0.01%
Oman	5.69%	4.30%	3.21%	2.37%	Ukraine	0.02%	0.06%	0.02%	0.01%
Yemen	2.40%	1.85%	2.39%	2.25%	Iran	0.02%	0.04%	0.01%	0.01%
Sudan	1.40%	1.35%	1.28%	1.51%	Norway	0.01%	0.03%	0.01%	0.01%
Kenya	1.51%	1.25%	1.12%	1.12%	Switzerland	0.01%	0.05%	0.01%	0.01%
Nigeria	1.12%	0.88%	1.00%	1.11%	Sweden	0.01%	0.03%	0.01%	0.01%
Tanzania	1.02%	0.82%	0.74%	0.90%	Singapore	0.01%	0.34%	0.01%	0.01%
Saudi Arabia	0.97%	0.77%	0.73%	0.31%	Belgium	0.01%	0.05%	0.01%	0.00%
Sri Lanka	0.90%	1.04%	0.58%	0.44%	Thailand	0.00%	0.12%	0.00%	0.01%
Myanmar	0.36%	0.36%	0.58%	0.69%	Austria	0.00%	0.04%	0.00%	0.01%
Mauritius	0.34%	0.41%	0.51%	0.60%	Ireland	0.00%	0.07%	0.00%	0.00%
Bahrain	0.23%	0.23%	0.26%	0.21%	Denmark	0.01%	0.02%	0.00%	0.00%
Pakistan	0.36%	0.25%	0.20%	0.16%	Japan	0.01%	0.10%	0.00%	0.00%
United States	0.13%	2.61%	0.17%	0.22%	Finland	0.00%	0.02%	0.00%	0.00%
United Kingdom	0.15%	1.67%	0.16%	0.19%	Israel	0.00%	0.03%	0.00%	0.01%
Nepal	0.09%	1.78%	0.10%	0.24%	Portugal	0.00%	0.12%	0.00%	0.01%
Turkey	0.02%	0.12%	0.09%	0.06%	Spain	0.00%	0.05%	0.00%	0.00%
Canada	0.06%	0.50%	0.07%	0.10%	Brazil	0.00%	0.02%	0.00%	0.00%
United Arab Emirates	0.10%	0.15%	0.07%	0.11%	Mexico	0.00%	0.01%	0.00%	0.00%
Philippines	0.06%	0.28%	0.07%	0.18%	Argentina	0.00%	0.01%	0.00%	0.00%
Kazakhstan	0.07%	0.06%	0.06%	0.06%	Poland	0.00%	0.02%	0.00%	0.00%
Australia	0.04%	0.47%	0.05%	0.06%	Korea(Rok)	0.00%	0.07%	0.00%	0.00%
Malaysia	0.09%	0.23%	0.05%	0.04%	Taiwan (Province Of China)	0.00%	0.02%	0.00%	0.00%
South Africa	0.03%	0.09%	0.05%	0.04%	Czech	0.00%	0.01%	0.00%	0.00%
Russian Federation	0.06%	0.21%	0.04%	0.04%	Greece	0.00%	0.02%	0.00%	0.00%
France	0.02%	0.18%	0.04%	0.05%	Vietnam	0.00%	0.01%	0.00%	0.00%
Egypt	0.05%	0.09%	0.04%	0.03%	Bhutan	0.00%	0.26%	0.00%	0.00%
Indonesia	0.05%	0.10%	0.04%	0.04%	Others	7.64%	6.63%	8.42%	0.25%
Germany	0.02%	0.20%	0.03%	0.03%					

Source: India Tourism Statistics 2011-2021 (Ministry of Tourism, GOI).

It is seen that Bangladesh, Iraq, Maldives, Afghanistan and Oman are the top five leading countries which is the highest source of traffic of foreign tourists coming to India for healthcare purpose. These five countries have contributed around 81% of the healthcare tourism traffic. The remaining 19% is the contribution of other countries. Thus, it is high time now to target the other potential countries for better performance of the sector and tap the potential. Thus, there exists huge opportunity for India if it excels in penetrating into the other countries.

Cost of Treatment – India and other Countries

The cost effectiveness of various surgeries in India is one of the most important advantages with quality of treatment. The cost of treatment for various surgeries in India and other countries is presented in table 6 below:

Table 6: Treatment Cost Comparison

Procedures	US ($)	Costa Rica ($)	India ($)	Korea ($)	Mexico ($)	Thailand ($)	Malaysia ($)
Heart Bypass	$144,000	$25,000	$5,200	$28,900	$27,000	$15,121	$11,430
Angioplasty	$57,000	$13,000	$3,300	$15,200	$12,500	$3,788	$5,430
Heart Valve Replacement	$170,000	$30,000	$5,500	$43,500	$18,000	$21,212	$10,580
Hip Replacement	$50,000	$12,500	$7,000	$14,120	$13,000	$7,879	$7,500
Hip Resurfacing	$50,000	$12,500	$7,000	$15,600	$15,000	$15,152	$12,350
Knee Replacement	$50,000	$11,500	$6,200	$19,800	$12,000	$12,297	$7,000
Spinal Fusion	$100,000	$11,500	$6,500	$15,400	$12,000	$9,091	$6,000
Dental Implant	$2,800	$900	$1,000	$4,200	$1,800	$3,636	$345
Lap Band	$30,000	$8,500	$3,000	N/A	$6,500	$11,515	N/A
Breast Implants	$10,000	$3,800	$3,500	$12,500	$3,500	$2,727	N/A
Rhinoplasty	$8,000	$4,500	$4,000	$5,000	$3,500	$3,901	$1,293
Face Lift	$15,000	$6,000	$4,000	$15,300	$4,900	$3,697	$3,440
Hysterectomy	$15,000	$5,700	$2,500	$11,000	$5,800	$2,727	$5,250
Gastric Sleeve	$28,700	$10,500	$5,000	N/A	$9,995	$13,636	N/A
Gastric Bypass	$32,972	$12,500	$5,000	N/A	$10,950	$16,667	$9,450
Liposuction	$9,000	$3,900	$2,800	N/A	$2,800	$2,303	$2,299
Tummy Tuck	$9,750	$5,300	$3,000	N/A	$4,025	$5,000	N/A
Lasik (both eyes)	$4,400	$1,800	$500	$6,000	$1,995	$1,818	$477
Cornea (both eyes)	N/A	$4,200	N/A	$7,000	N/A	$1,800	N/A
Retina	N/A	$4,500	$850	$10,200	$3,500	$4,242	$3,000
IVF Treatment	N/A	$2,800	$3,250	$2,180	$3,950	$9,091	$3,819
Source: MediConnect India (https://www.medicalindiatourism.com/treatment-cost.html)							

It can be seen that the cost of treatment on most of the treatments in India is lowest in comparison with all the other countries. It is 1/3rd or 1/5th of the cost of various surgeries undertaken in most of the countries. Thus, Indian healthcare industry must take necessary efforts to promote its cost effectiveness and improved quality treatments in India. The present initiatives of government for digital India is an added advantage where most of the processes are becoming technology driven and data driven which is an in-built feature of many of the technologies and internet of things. This also shows that India holds the potential to become the global healthcare destination for foreign patients for healthcare services in near future.

Conclusion

Indian healthcare industry is becoming the destination of choice for various migrating foreign patients who are seeking better healthcare facilities with economy and low gestation period for treatment. The higher cost of treatment and long waiting times in other countries is where India can harness the opportunity. It is also seen that there are few third world countries which are the major contributors in the inbound travellers coming for medical tourism in India. Thus, huge potential is still remaining untapped especially the developed economies. This will help India's healthcare industry to enjoy the commercial economies that will not only create the employment opportunities for several stakeholders in an industry, but will increase the investment in an industry for enrichment of various necessary resources. This will help the other revenue generating actors which are complimenting this industry in terms of support services. Thus, widening vistas of Indian healthcare industry will create the standard operating procedures and will inculcate the high professional standards, ethics and transparency in the processes and Indian healthcare system which is a need of an hour. India holds the potential to become a global healthcare destination if it aggressively taps the untapped potential in the near future.

References

1) Bansal Anupam Kumar, Virmani Varun and Tyagi Mukta (2014), Medical Tourism And Its Avenues For Generating Revenue, IJSR - International Journal of Scientific Research, Volume 3, Issue 2, February, 429-431. (Google Scholar)

2) Dawn Suman Kumar, Pal Swati (2011), Medical Tourism In India: Issues, Opportunities And Designing Strategies For Growth And Development, ZENITH - International Journal of Multidisciplinary Research, Vol.1 Issue 3, July, 185-202. (Google Scholar)

3) Indian Medical Tourism Association. (http://www.indianmedicaltourismassociation.com/)

4) India Tourism Statistics 2011 to 2021, Ministry of Tourism, GOI.

5) Rai Anu , Chakrabarty Premangshu, Sarkar Ashis (2014), Forecasting the Demand for Medical Tourism in India, IOSR Journal Of Humanities And Social Science (IOSR-JHSS), Volume 19, Issue 11, Ver. I, November, 22-30. (Google Scholar)

6) Reddy Sunita, Qadeer Imrana (2010), Medical Tourism in India: Progress or Predicament?, Economic & Political Weekly, May 15, Vol XLV, No 20, 69-75. (Google Scholar)

7) Shanmugam K R (2013), Medical Tourism in India: Progress, Opportunities and Challenges, MONOGRAPH 26/2013, March. (Google Scholar).

8) Valorie A. Crooks, Leigh Turner, Jeremy Snyder, Rory Johnston, Paul Kingsbury (2011), Promoting medical tourism to India: Messages, images, and the marketing of international patient travel, Social Science & Medicine, Volume 72, Issue 5, 726-732. (https://doi.org/10.1016/j.socscimed.2010.12.022) (Google Scholar)