A Comparative Analysis of the Medical Tourism Industry in India and Thailand

Dr. Aniruddh Bhaidkar

Abstract

Medical tourism is a relatively new industry which has risen in a big way over the last two decades. Globalisation in the highly lucrative healthcare sector has opened up new opportunities for the economies of India and Thailand. This thesis provides a descriptive and analytical overview of the Medical Tourism industry in India and Thailand. Approach: The author evaluates the sector in terms of Porter’s Diamond model of National Competitiveness. The author has gathered data from available literature and from primary sources on the financial parameters of major local competitors in medical tourism. Findings: The author concludes that major competitors in medical tourism benefit from strong government support and rely heavily on the international market to fuel their growth.

Key words: Medical Tourism, India, Thailand, Comparative Analysis, Porter’s Diamond Analysis
**Introduction**

Medical tourism or health tourism is a relatively new concept where patients travel to a foreign destination to obtain quality medical treatments that are better or comparable to the ones in their home country but are available at a significantly lower cost. There has been a phenomenal growth in this trend over the past decade. Due to its speedy growth, medical tourism has developed from a niche market to a global industry. A combination of high costs of treatment procedures and long waiting lists in the west along with growth of the internet, relative affordability of international air travel and favourable exchange rates in the east, has made medical tourism an attractive option for prospective patients (Connell 2005).

**Medical Tourism in Asia**

Medical tourism as an industry has been fast emerging worldwide. It involves about 50 countries across six continents amongst which several Asian countries lead the charts. India, Thailand and Singapore comprise a major chunk of about 90% of the market share in Asia through systematic investments in their medical and infrastructure facilities (NaRanong et al 2009).

**Why India and Thailand?**

The medical tourism industry has considerable appeal to emerging economies. (Deloitte 2008) predicts this industry to demonstrate a very strong growth in the near future. The rapidly rising costs of medical treatment in the west in addition to the increasing waiting lists for treatment have made medical tourism more appealing as patients increasingly look for global and cost effective solutions to meet their healthcare needs. Most widely cited estimates of the industry suggest that it has already grown from a $40 billion industry in 2004 to a $ 100 billion by 2010 (Nagar 2010). Deloitte 2008 suggests that by 2014, 4% of all the tourists from the US will be medical tourists. While medical tourists have sought medical care in many parts of the world, India and Thailand have a significant share in the size of the medical tourism industry, which itself is growing at a rate of 20% per year (Velasco 2008).

Both India and Thailand are leading players in the field of medical tourism. Since the mid-1990s, they have embarked on reforms resulting in a growing number of private health players. The governments are involved to varying extents in the development of the medical tourism industry by supporting it through various fiscal incentives and policy modifications to encourage growth. Their economic policies are formulated more on the basis of domestic politics than on the international economic demands (Sethaput 2006; Chanda 2011).

**Porter's National Diamond Model of Competitive Advantage of Nations**

This paper mainly focuses on the competitive advantages of the medical tourism industry in India and Thailand, two fast developing players in the industry. The potential for impacting the local healthcare systems of these countries is discussed through examination of six factors of the “Porter’s Diamond of National Competitiveness”.

Through the “Diamond Model of Competitive advantage of Nations”, Porter attempts to answer the question, “Why are some countries more successful in particular industries than others?”

Porter’s framework of analysis has four classes of national attributes to determine the competitive
advantage of a nation which he calls the National Diamond; these include factor conditions, demand conditions, related and supporting industries and firm strategies, and rivalry (Frana A.J 1992). He also identifies two additional supporting factors - government policy and change that support the system of national competitiveness (Smit 2010). The government interacts with the four determinants by fostering or deterring competitive advantage (Mann et al 2011).

Porter’s Diamond Model for the Competitive Advantage of Nations

Factor Conditions

Goverment

Firm Strategy, Structure and Rivalry

Related and Supporting Industries

Demand Conditions

Source: Porter, Michael (2000)
Figure 1: Porter’s Diamond Model

Findings and Analysis

The medical tourism industry as a whole is directly influenced by a range of interconnected factors. The author applies one widely utilised frame work to assess the competitive advantage of nations - the Diamond Model of Competitive Advantage of Nations - to understand the competitive position of India and Thailand with respect to competition at a global level and between each other.

Sorting out observations into similar sets or groups can prove to be an important tool for examining relationships among strategy, environment, performance and leadership (Shook 1996). This model redefines “national competitiveness” as a set of factors, policies and institutions that determine the countries’ level of productivity. Shook suggests that high intensity domestic competition breeds international success. This model has received wide acceptance among researchers and is a popular framework to access national competitiveness (Sagheer et al 2007).

Porter’s Diamond Model consists of six elements; four national determinants and two external variables - government and chance. Porter’s four determinants and two outside forces interact with each other within the framework of the diamond of competitive advantage; the type and quality of these interactions determine the global competitiveness of the nation (Grant 1991). According to Porter, the four determinants for a nation “… shape the environment in which local firms compete and promote or impede the creation of competitive conditions.” (Cheng-Ru2006)

The research structure is based on these six pillars of research for studying the comparative advantage between nations. They will serve as a tool to provide a deeper understanding of their role in the framework of the healthcare systems of India and Thailand.

Factor Conditions:

These lie at the centre of the theory of international comparative advantage (Grant 2002). The general economic conditions of the countries, the industry structure and the business environments will be thoroughly reviewed. The geographic area, infrastructure, language barriers and quality of medical education, access to credit, the GDP of the respective countries, and bureaucracy are various factors that will be considered to determine the conditions. Porter establishes a relationship between
the basic and advanced factors. He postulates that the basic factors can provide initial advantage to a nation which are supported and advanced by the advanced factors. Conversely, a deficiency in basic factors can create pressure to invest in advanced factors (Grant 1991).

India:

Climatic conditions:
Medical tourism is usually located in warm and pleasant environments. India has a major advantage with these basic factors including the weather conditions, natural resources and its large size, which gives it an advantage, especially for visitors from countries with colder climates (Lee 2007) (Chacko 2002).

Cost - Advantage India
The way healthcare is structured in India is a primary factor to achieve cost savings. When compared to the USA and Europe, there is comparatively minimal third party involvement due to limited health insurance and negligible government participation in healthcare delivery. The costs of treatment in India are not only cheaper, but the waiting times are nil. The comparison made by the American Medical Association through a cost comparison study estimates that a heart valve replacement may cost £150,000 in the USA, £70,000 in Britain but the same procedure will cost £7,500 in India. This price is not only considerably lower than in the UK or USA but is also lower when compared to other regional players in Medical tourism; for instance, the same procedure would cost £10,000 in Thailand and £12,000 in Singapore. This gives India a certain competitive edge as compared to other countries.

Price transparency is much better in India as compared to USA because there is less likelihood of cross subsidisation by the government. The patients are expected to bear the costs of their treatment.

Comparative cost advantage of the Indian medical tourism industry:
The prime factors for fuelling the growth of the medical tourism industry in India are two-pronged; on the one hand is the decreasing access, increasing costs of medical treatment, and declining quality of healthcare delivery in the west while on the other hand, there is easy access, improving quality and affordable costs of medical treatment in India. Medical tourism in India is a niche market which offers top end, non-emergency medical procedures at reasonably low costs. There are a wide range of procedures on offer including heart surgery, joint replacements, treatments, LASER eye surgeries and high quality dental care.

Let’s consider the costs of a single routine surgical procedure - hip replacement – in India and in the USA. The price in India is around 75 to 85% less compared to the USA inspite of being conducted in an internationally accredited hospital in India. The typical costs for an inpatient stay in a US hospital for the procedure costs USD 46,875; the same procedure costs USD 8,750 in a JCI accredited Indian hospital (Piozolo 2011, AMA report 2007).

Factor Conditions: Thailand
Thailand has a pleasant natural environment and a good climate overall all year long. It has a reasonably strong road infrastructure and there are major international airports with global connectivity. Thailand also enjoys a central geographical location in South East Asia which provides closeness to other emerging economies like Indonesia and Malaysia. Thailand has a high literacy rate as compared to its neighbours, which increases the quality of its labour
force. But the factor that reduces the competitiveness of the labour force is its lack of proficiency in the English language (Sethaput 2006). According to an often cited HBS study, providing high quality of services is a part of the Thai culture (Sethaput et al 2006, Wilson 2007).

Cost - Advantage Thailand: Generally an important factor enjoyed by most South East Asian countries engaged in medical tourism is the cost advantage. The cost of medical treatment in Thailand is significantly lower than the cost of similar treatment in western countries.

This affordable care is offered at a significant cost advantage while the outcomes of the treatment are similar to the tourist's country of residence (Turner2007).

Table 1: Cost Comparison

<table>
<thead>
<tr>
<th>Types of Treatment</th>
<th>U.S.</th>
<th>Singapore</th>
<th>Thailand</th>
<th>Malaysia</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac Procedure</td>
<td>50,000</td>
<td>30,000</td>
<td>13,500</td>
<td>NA</td>
<td>4,500</td>
</tr>
<tr>
<td>Hip Replacement</td>
<td>35,000</td>
<td>NA</td>
<td>12,000</td>
<td>6,000</td>
<td>6,500</td>
</tr>
<tr>
<td>Face Lift</td>
<td>10,000</td>
<td>NA</td>
<td>4,000</td>
<td>2,500</td>
<td>2,600</td>
</tr>
</tbody>
</table>

Source: Turner (2007)

**Demand Conditions:**

An important dimension of the industry is what is termed as “demand conditions” which refers to the nature of customer preferences in regions, which are important for the entrepreneurs as they directly influence the performance of firms.

According to Potter, local demand for healthcare provides an impetus to the countries to upgrade their competitive advantages. Competitive success is more likely in an industry where there is a strong local demand (Potter 1998). The demand promotes innovation, improving the quality standards thereby leading to an overall improvement in the industries. In both India and Thailand, medical tourism has proved instrumental in further development of medical expertise. The local healthcare organisations also draw heavily on regional demand as a source of revenues and employment of medical professionals (Shane 2004).

![Figure 2: U.S. Outbound Patient Flow. 10-year Projection (millions)](image)

Assumptions:
- In 2007, approximately 750,000 Americans traveled outbound for medical care. That number will increase to six million by 2010. Therefore, the growth rate from 2007 to 2010 is 100 percent for the base case estimate.
- After 2010, the growth rate will begin to fall due to supply capacity constraints in foreign countries.
- Upper/Lower bound estimates assume growth rate is higher/lower than the base case estimate.

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Source: Deloitte 2008

Figure 2: Outbound patient flow from the US
Demand conditions in India

In the case of Medical Tourism, the local and regional demand has led to the rapid development of medical capability. India is emerging as a preferred world leader in providing top end specialist medical care like cardiac procedures. Thailand has created for itself areas of specialised medical competence e.g. gender reassignment procedures. International demand for healthcare has been supported by the rise of budget airline industry which has made local travel to south and south-east Asia considerably more affordable and accessible.

The media has also played a role in supporting the medical tourism industry by publishing latest advances in medicine and infrastructure, data about price comparisons and patient testimonials thereby improving patient confidence.

The Indian economy is projected to grow in tandem with the population. Goldman Sachs predicts that the Indian economy will expand at least 5% annually for the next 45 years and will be the only emerging economy to grow at such a robust pace. Growth in the economy is creating a thriving middle class. With increasing purchasing power parity, there will be more disposable income to spend on healthcare thus driving up demand (Price Water House Coopers report (2007)).

Demand conditions in Thailand:

The 11.23 million tourists who visit the country each year and the Thai expatriates now demand a comparable quality of healthcare as available in their home countries. The strong local demand for cosmetic procedures in Thailand has also contributed to the overall improvement of the industry (Sethaput2006).

Specific pockets of demand such as gender reassignment have created a high level of expertise in Bangkok making Thailand a world leader in gender realignment Chanda (2011). Thailand is a world leader in surgical procedures which include face lifts, hair removal, Botox and sex reassignment procedures. The demand for these elective services has led to the generation of specialist expertise in this area of healthcare (Wilson 2011).

Context of Firms' Strategy and Rivalry

One of the key findings of Porter's work on national competitiveness is that successful industries always exist in clusters. In most cases, they enjoy a close relationship with and competitive benefits from other related and supporting sectors. The term 'medical tourism' itself suggests a close relationship between the medical industry and the tourism industry especially when medical treatment and subsequent tourism are coupled. It focuses on dealing with the competitive challenges that exist in a service that carries a high level of risk, requires high levels of credibility and deals with the need for direct marketing (Lee 2007).

India:

A competitive strategy employed by healthcare institutions in India is to gain an affiliation with a world class institution; for instance, India's Wockhardt group of hospitals has signed a memorandum of understanding with the Harvard Medical School. These affiliations offer the institute a leading edge in the latest research in the field while at the same time bringing positive reputational effects to the organisation.

Thailand:

Bumrungrad Hospital became the first internationally accredited hospital in south-east Asia in 2002 after
being accredited by the JCI (Joint Commission International). It pioneered the medical tourism business in Thailand and its total inflow of international patients jumped from 50,000 in 1997 to 350,000 in 2005 Sethaput (2005). In 2011, the hospital treated around 600,000 patients from nearly 180 countries and over 100,000 patients from the middle east capitalizing on the fact that the United States put restrictions on patients from the middle east post 9/11 (IMTJ 2011).

Institutions like Bumrungrad and Piyavate Hospital are accredited by ISO 9001-2000 while Bangkok Hospital Group Medical Centre is accredited by both the ISO and the JCI. Bangkok's Bumrungrad International Hospital boasts of more than 200 US states board certified physicians (Burkett 2007).

**Related and supporting industries**

Porter grouped countries specializing in particular industries into clusters and suggested that growth in a cluster has spill over benefits beyond the confines of that industry.

**India:**

**Pharmaceutical Markets:**

In India, a number of supporting industries have grown which contribute to the growth of the medical tourism sector. One such example is the emergence of a robust pharmaceutical industry, which is also one of the fastest growing pharmaceutical markets in the world and is emerging as a successful worldwide exporter of generic drugs (PWC 2007, KPMG report 2006).

The transport industry plays a very important role in making India an attractive industry for medical tourism. The government has allowed 100% FDI in the development of new airports in Bangalore and Hyderabad. This model led to the successful completion of an operational and a world class airport in less than five years thus increasing the air traffic handling capacity in each of these major cities in India (IEBF) (Prakash 2011).

**Thailand:**

One-sixth of the entire population of Thailand lives in the Bangkok metropolitan region. This region has seen efficient infrastructure development due to the economic boom of the 90s with the creation of a world class airport. Beyond that region, severe disparities exist in infrastructure and accessibility (Rietveld 2002).

Bumrungrad Hospital is in partnership with Diethelm Travel which is Thailand's leading inbound tourist organisation. It assists the hospital to liaison with potential patients and helps the patients in selection of suitable treatment abroad (Nagar 2010).

**The Role of Government and chance**

According to Porter, “The behaviour of firms must become integral to a theory of national competitive advantage.” Hence, Porter proposes answering the fundamental question: 'Why do firms based in particular nations achieve international success in individual segments and industries?' (Porter, 1990). This question introduces the role of the governments on the competitive position of industries and firms.

Thus, the role of the government is an important variable in the determinants of national competitive advantage. It is seen as a vital if not one of the most important factors that influence modern international competition. The government has a potential to influence and to be influenced by each of the four factors mentioned earlier. The government can also be a major buyer of healthcare e.g. the NHS. The
government, according to Porter, has the potential to hurt the nation's industry. Related and supporting industries can be influenced by using its controls on the regulations of advertising, tax policies or market regulations. Thus, according to Porter, the government plays the role of facilitator of the “national diamond” while interacting with the four determinants by fostering or deterring the role of competitive advantage (Mann et al 2011).

The Role of Chance
According to Porter, the determining factors of national advantage outline the environment for competition in particular industries. However according to him, chance events also played a role. These are events that are mainly outside the control of industries or even governments; some examples are significant shifts in the world financial markets, surges of world or regional demand, wars or political decisions made by governments.

Discussion and Conclusion
Trans-national health services or medical tourism is an emerging sector with its own issues, but also with promising facts and figures (Mainil et al 2011). Among the emerging economies, the markets that have seen the most rapid growth in medical tourism are India and Thailand. These markets are projected to be worth US$ 6 billion by 2012 and are anticipated to grow at a compound growth rate of 17.6% between 2007 and 2012 (Chanda 2011). While the two countries compete with each other in the medical tourism sector, there is a massive difference in the size of the economy and the healthcare industries between them.

India was one of the first countries to recognize the potential of medical tourism and today is the most popular destination for global medical tourists (Companiesandmarkets.com, McKinsey Quarterly 2008). Thailand enjoys the benefit of being the early entrant in medical tourism with strong demand and factor conditions, fiscal incentives, growth in the GDP and support of the government; these factors have paid rich dividends and resulted in a stable medical tourism industry demonstrating consistent growth (York 2006, Bloomberg News 2012, Wilson 2011).

When considering the competitive position of India and Thailand in the medical tourism industry, the most striking similarity is the fact that they are competing on the basis of a cost price advantage which is common to both. They also offer a comparable range of medical products to a common pool of prospective patients in the west (Chanda 2011). Hence, to sustain their growth as hotspots of medical tourism, these markets will have to diversify into niche areas of treatment products.

Despite the fact that both India and Thailand compete in medical tourism and the participating hospitals offer a similar “menu” of clinical procedures, their healthcare systems are structurally different and are known for excelling in different clinical procedures and thus attract different types of patients. India, with its comparatively large pool of internationally trained surgeons, is making its mark in top end clinical procedures like heart surgery and advanced cancer care (Khanna 2007).

Thailand on the other hand, is widely known for cosmetic procedures. “Sex changes or sex reassignment surgeries” provides a catchy summary of Thailand’s competitive niche in the field of cosmetic surgery, but recently Bumrungrad and other early discussed Thai hospitals have started focusing towards more complicated medical procedures.
These illustrations offer an image capturing the structural and economic reforms that have characterised the globalisation of healthcare through specialised pockets of medical tourism in India and Thailand.

The Indian economy is fundamentally stronger than its Thai counterpart and is forecasted to grow at a minimum of 5% per annum for the next 50 years. India is poised to overtake Thailand as a world leader in the medical tourism industry (Burkett 2007, Pg 227, Arvind Subramanian, 2004, International Monitory Fund). Medical tourism in India and Thailand has moved on from being an evolving and emerging industry to becoming an established industry which involves a multiplicity of stakeholders and beneficiaries. The review of literature, the national diamond analysis and the Bloomberg study all indicate that while there is significant potential for growth within the medical tourism industry in India and Thailand, India will grow faster and has the potential to demonstrate sustained growth in the medical tourism Industry for a longer time.

Appendix

1. India held more than 20% share of medical tourists and market share in Asia in the year 2011. Between the years 2009 and 2011, India saw a 30% rise in the number of medical tourists each year and it is projected that by 2015, Indian hospitals will receive half a million medical tourists every year. This growth is attributed to favourable government policies to aid medical tourism, rapidly developing infrastructure and the increasing number of Joint Commission International (JCI) accredited hospitals (Companiesandmarkets.com) (McKinsey Quarterly 2008).

2. Kingsbury et al (2011), in their work, infer that India is 'high tech' and clinically oriented with compassionate and articulate doctors. They suggest that while cost may be an important factor which brings patients to India, hospitals themselves focus on their international or national accreditation and the fact that they are in a position to provide a wide range of medical procedures to their patients. They emphasise competency, professionalism and quality of their medical care.
References

• Gaulier, Guillaume; Lemoine, Françoise; Ünal, Deniz (2012). The rise of emerging economies in the EU15 trade. The European Journal of Comparative Economics, 9. 1133-175.
• IMTJ (2010). The role of international accreditation in medical tourism. International Medical Travel Journal.
• KPMG 2006 The Indian Pharmaceutical Industry: Collaboration for Growth Industrial Markets.
• Nandi (2005). The private healthcare sector in India is burgeoning, but at the cost of public healthcare. BMJ Volume, 331.
• National Health Profile (2010). The directory of health research institutions in India. Indian Council of Medical Research, New Delhi.
• Piazolo (2010). The Economics of medical tourism: A case study for the USA and India. 8th International Conference on Management, Enterprise and benchmarking.


• Robson (2011), Real World Research. Wiley, UK.


• Subramanian (2004). Why India Can Grow at 7 Per cent a Year or More: Projections and Reflections. IMF working paper.


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**Aniruddh A. Bhaidkar** is a Masters in Healthcare Management from Manchester Business School, University Of Manchester, UK. Bhaidkar currently works at Hindustan Petroleum Corporation Ltd. The current manuscript is an output from his Master's thesis submitted to Manchester Business School. Bhaidkar can be reached at aniruddh.bhaidkar@gmail.com