Indian I.T Industry - A Model based approach to a shift towards a Prominent Presence in the Global Market

Dr. M. Prasanna Mohan raj,
Faculty, School of Business, Alliance University
Chikkahagade Cross, Anekal, Bangalore
Email: prasanna.mr@alliance.edu.in, prasannasaai@gmail.com

Mr. Niranjan Ramesh,
MBA student, School of Business, Alliance University
Chikkahagade Cross, Anekal, Bangalore
Email: rniranjan1@bus.alliance.edu.in

Ms. Snigdhabiyani,
MBA student, School of Business, Alliance University
Chikkahagade Cross, Anekal, Bangalore
Email: snigdhabiyani@gmail.com

ABSTRACT

India has become a hub for outsourcing. This means a great deal of employment opportunities and making a place in the global arena. Indian IT industry runs over 90% into exports. The top six players contribute to over 36% of the total revenues generated by the industry. (IBEF report, 2013). There are 5 companies with over 40,000 employees and more than 4500 IT companies running in the country (IBEF report, 2013). The major growth drivers that play a very important role in the evolution of the industry are the economic fluctuations, external forces like the economies of other countries, talent pool, scope for infrastructural improvements, policy framework and the political scenario of the nation. On a broader perspective, Indian IT companies are not on the charts. With IBM bagging over 6% of the global market, followed by HP at 5% followed by Accenture, FDC and so on (marketline report, 2013). By 2016, the global IT sector is estimated to have grown by 31% of the current size, in terms of sales and revenues (marketline report, 2013). The Indian companies have a long way to go and the recommendations for the future growth have been given later in this report. Some argue that it has reached or will reach a stagnation point in the foreseeable future, in terms of innovation and growth. That is yet to be seen but we can do our best to make sure that it doesn’t happen or if it has

Keywords: BCG matrix, Porters five forces, SWOT, Innovation and Indian IT industry,

1. INFORMATION TECHNOLOGY INDUSTRY IN INDIA : AN OVERVIEW

Export revenues for IT industry is growing at 59% of total revenues. Engineering services and Software Products accounted for 22% & 19% respectively. Maximum IT spending is done in Indian manufacturing sector which is followed by automotive, chemicals industry and consumer products industries. NASSCOM’s prediction says that the IT sector of India is expected to grow by 13 to 14 per cent and it may reach 25 billion by the year 2020.
The Indian IT industry is currently driven by services, more than products (Dinodi Capital Advisors, May 2013) although there are companies driving the product business, the top companies of the industry are predominantly service oriented. However, The global perspective is a contradiction to this, wherein, the large players are mostly product driven.

2. COMPETITIVE ANALYSIS:

2.1 MICHAEL PORTER’S FIVE FORCE MODEL

Michael porter proposed the “five forces” framework, which explains five different forces that affects business climate inside any industry. The five forces are namely bargaining power of supplier, bargaining power of suppliers, intensity of rivalry, threat of new entrants and threat of substitutes. The diagram below elaborates the five forces framework pertaining to the IT industry in India. A positive number indicates a high degree of agreement to a particular force, and similarly a negative number would indicate a high degree of disagreement to that particular force. For example, a “-4” value for bargaining power of suppliers indicates that, bargaining power of suppliers is very less in this industry because, substitute suppliers to most of their supply requirements like servers, storages etc are readily available.
Rivalry Among existing firms (+5)
Most of the existing firms are service driven. Since there is not much of a differentiation in the services offered, the intensity of rivalry ranges from moderate to high. Rivalry within the industry cannot be perceived as “between” companies, but can be seen as rivalry “between clienteles” they cater to.

Bargaining Power of Suppliers (-4)
The bargaining power of the supplier is very low because the basic requirement for a smooth business operation in the IT industry is not concentrated with a single supplier. There are many suppliers operating at various price points which make the bargaining power even more flat.

Bargaining Power of Buyers (+5)
The bargaining power of the buyers is moderate to high because high intensity of rivalry in the market signifies that there is ample number of companies competing to satiate the customer’s requirements for superior solutions.

Threat of Substitute (-4)
Most software companies have specified, patented products which cannot be substituted. Like the secret recipes of leading cola companies or fast food chains, these companies have the luxury of not fretting about other companies entering the market with the same product as theirs. Hence, the threat for a substitute is very low.
Threat of New Entrant

There are numerous start-up IT companies successfully running in India. Although the entry barriers are not very stringent, the threat of new entrants becomes low because of several reasons. Technology is dynamic and everyday a part of it becomes outdated. The need of constant innovation is costly and also very time-consuming, which many small companies cannot sustain. Furthermore, the “Big Fishes” have predominantly occupied majority of the market because they have been around for a long time, hence are more trustworthy. Another reason for new entrants to find it difficult to survive in this market is because they tend to be a recipients of major and minor take-overs or/and mergers.

2.2 HHI (Herfindahl Hirschman Index):
HHI is used to find the type of competition in the market.

<table>
<thead>
<tr>
<th>Company</th>
<th>Market Share (2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCS</td>
<td>10.9%</td>
</tr>
<tr>
<td>Wipro</td>
<td>7.1%</td>
</tr>
<tr>
<td>Cognizant</td>
<td>6.7%</td>
</tr>
<tr>
<td>Infosys</td>
<td>6.2%</td>
</tr>
<tr>
<td>HCL</td>
<td>4.1%</td>
</tr>
<tr>
<td>Tech Mahindra</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market Shares of major IT companies</th>
</tr>
</thead>
</table>

Source: Capitaline.com

HHI can be determined by squaring and adding the market shares of the major companies functioning in a market. For the IT industry in India, the top 6 companies will more or less determine the kind of competition.

$$\text{HHI} = 10.9^2 + 7.1^2 + 6.7^2 + 6.2^2 + 4.1^2 + 1.1^2 = 270.57$$

The HHI value of any industry can range between 0 and 10,000. Assuming only a single company dominates the entire industry, it would have a 100% market share, which implies a $100^2=10000$ so for a perfect monopoly, the HHI would be 10000. On the other hand, if the industry is being dominated by so many companies that, the market share of single company is close to a very minimal value or even 0, this would give an HHI of 0 indicating a perfect competition. The HHI calculation above has given a value of 270.57 which indicates that the Indian IT industry is more close to a “perfectly competition” scenario than a monopoly. In reality, this is evident from the fact that, entry barriers into this industry is minimal but sustaining is tedious. No single company holds more than half of the market share within this industry.

Through analysing the market share of top six IT companies it is found out that the market is competitive. It industry involves many players who on a daily basis try something new i.e. they are being innovative and giving a big challenge to one another. Innovation is the key to be at first position in the IT industry. So this triggers the way to competition in this industry.
3. PRODUCT PORTFOLIO MANAGEMENT: BCG MATRIX APPROACH

BCG matrix is used to check out which domain of the company is in which particular quadrant. This cannot be done for companies with stand alone business. However, we are trying to plot BCG Matrix for all the verticals that are present in the Top IT companies. Thus we can actually differentiate between “The cash cow” vertical and “The Dog” vertical. Since the vertical comparison is within the company we cannot actually measure according to the Market growth vs. Market shares. Most of the IT industries have these common verticals divided in the company. This can be listed as follows:

- BFSI
- Manufacturing and hi-tech
- Retail
- Energy and utilities
- Life-sciences and healthcare

The approximate revenue contribution has been shown in the table 3.5.2 below, it has been divided according to the verticals and its respective companies.

<table>
<thead>
<tr>
<th>% - as of Fiscal year 2012</th>
<th>Infosys</th>
<th>TCS</th>
<th>Wipro</th>
<th>HCL Tech</th>
</tr>
</thead>
<tbody>
<tr>
<td>BFSI</td>
<td>34.3</td>
<td>42.2</td>
<td>14.9</td>
<td>24.0</td>
</tr>
<tr>
<td>Manufacturing and hi-tech</td>
<td>21.3</td>
<td>13.9</td>
<td>19.1</td>
<td>29.0</td>
</tr>
<tr>
<td>Retail</td>
<td>15.2</td>
<td>12.5</td>
<td>15.4</td>
<td>8.6</td>
</tr>
<tr>
<td>Energy and Utilities</td>
<td>6.1</td>
<td>3.8</td>
<td>14.0</td>
<td>6.8</td>
</tr>
<tr>
<td>Life sciences and healthcare</td>
<td>5.5</td>
<td>5.3</td>
<td>10.0</td>
<td>9.1</td>
</tr>
</tbody>
</table>

Source: Angel Research (2012), Angel Broking

The following figures depict the BCG matrix of various IT firms:

**Figure 3: BCG Matrix for Tata Consultancy Services**

The above image shows us that the allocation of the verticals of TCS according to their percentage of contribution provided to the company. This implies that TCS want to keep their services related only to IT.
Figure 4: BCG Matrix for Infosys

The above image shows us that the allocation of the verticals of Infosys according to their percentage of contribution provided to the company. This implies that Infosys focus on Life sciences, Infrastructure and energy sectors.

Figure 5: BCG Matrix for Wipro

Although it is hard to differentiate between the vertical contributions, the above BCG matrix shows that none of them are present in the dog quadrant which makes Wipro a sustainable company.

Figure 6: BCG Matrix for HCL Technologies

The above image shows us that the allocation of the verticals of HCL Technologies according to their percentage of contribution provided to the company. HCL Technologies are highly service oriented company even though they have their own brand image in the manufacturing vertical. Other verticals are not contributing so much to the company in terms of revenues but still HCL continues to keep these verticals and keep their options open.
4. FUTURE OUTLOOK:
The Indian IT market currently focuses on providing low cost solution in the services business of
global IT. Presence of Indian companies in the product development business of global IT is very
meagre, however, this number is slowly on the raise. US giants that outsource work to India, do not
allocate the high end SDLC (Software Development Life Cycle) processes like requirement analysis,
high level design and architectural design, although some Indian IT players have enough competency
to take up and successfully complete these high level software jobs. The other prominent trend is, IT
jobs, that were earlier confined to Bangalore, are slowly starting to experience a geographical diffuse
into other cities like Chennai, Hyderabad and Pune. The growth is not fast paced, this, can be largely
attributed to the lethargic attitude of the government in providing proper telecommunication
infrastructure. The penetration levels are higher for mobile, but, the speed at which the backbone
infrastructure works (network speed) and the coverage it offers are far below what other countries of
the world have currently in offer.

4.1 The Indian Advantage
The above listed views might possibly work against India’s’ dream to become the biggest contributor
to world IT business, but, if there is one factor that is particular only to India, and, the one that can
nullify all negative factors lined up against it, would be, the volume of young, English speaking talent
pool that India has got to offer. This number far exceeds, any other country can generate in the coming
years. It cannot be denied that China is gearing up to reduce the English fluency gap, but, at the same
time, doing it with ease like India, is a topic of debate (Live mint report, 2013).

4.2 Areas of Improvement
The number of skilled management professionals is less in India, although the inverse trend is true for
skilled non-management professionals. With Indian IT companies, looking for big global business and
mergers, the culture of innovation amongst its top officials is still not in par with their global
counterparts like Google, Microsoft etc. The other area in which Indian IT requires improvement, is,
opimal utilization of its workforce, in most of the top Indian companies, employees are often
underutilized and the job requires familiarity with standard platforms like Java, Visual basic more than
engineering expertise. However, most of the associates being recruited are from engineering
background and often find the job monotonous and less cumbersome, which is again a reason for high
attrition rates in top Indian IT firms.

4.3 From Services to Product Orientation
The migration of Indian IT companies to mainstream product development is not happening any time
in the near future, this, primarily can be attributed to the fact that was discussed in earlier section,
which is, lack of innovation culture amongst the top hierarchy of the firm, and, less availability of
skilled management graduates in the country. However, what might possibly happen is, global
multinationals that are currently outsourcing services and back office jobs to India, might outsource
more of higher level jobs in SDLC (Software Development Life Cycle) like requirement analysis and
architecture design. The other opportunity is, Indian subsidiaries of global multinationals might take
up significant chunk of the product development than what they are currently doing, this, however, is
not happening currently because, the global IT firms are still not comfortable in working out a way to
extract high end work from Indian companies.

4.4 Research and Development- The new drivers
The research in the industry was earlier concentrated towards programming technologies like Java, in
the recent times, the research focus changed towards technologies like mobile computing, cloud
computing and software as a service. This shift is attributed to preference of clients towards the
ubiquitous computing over standalone computing and the growing demand for low cost computing
solutions. The industry has also started looking for people who can provide end to end business
solutions rather than a code snippet (Vineet Nair, ET-Delhi, Feb 2012).
From the maturity curve, it is seen that application development services have attained maturity phase, while engineering solutions and knowledge process services are in the emerging phase, this further strengthens the argument that the future of this industry depends largely on magnitude of quality work in engineering services.

5. CONCLUSION

Like any other business, what just started as an initial exploration of opportunity worked out in favor of the Indian economy; Over the last few years IT revolution has changed ways in which lot of Indian cities were looked at, and this is not just about geographies but about the perception of Indian businesses in the global stage. Friendly policies by government ensured that this industry grew phenomenally utilizing every possible resource that this country can offer. It can ever be denied that, the IT industry contributes significant chunk to the nations’ growth and employs a significant number of this country’s manpower. It is also evident that, this industry has been one that rose from nowhere to everywhere within a short period of time, than any other industry ever, in the history of this country.

The industry gave an opportunity to Indian business minds a solid reason to conduct a business profitably outside Indian shores. It enabled Indian companies, to take risk, to improve competency, to compete globally and to adapt solid business practices like never before. Having said the advantages, at a macroeconomic level, it can never be overruled that, IT industries caused a surge of purchasing power amidst the Indian population. Salaries were paid in never before heard of figures, an average IT employee earned more than an employee in service with the government for fifteen years. Demand for luxury increased, demand for comfort and lifestyle increased, it brought in a new wave of western cultures. Looking at it from bird’s eye view, in a way this surge of demand, brought in globally visible brands to India, it made Indian presence for any company a mandatory clause if the brand had the intention to make it big in Asia, as a result, Indians got more choice, more quality products but not everybody enjoyed this trend. Small scale industries and subsidiaries did lose a substantial chunk of their base due to this sudden sense of luxury and purchasing power. Agricultural fields were replaced by IT SEZ and parks, pumping in more wastes and consuming even more power. Although impact on agriculture due to infrastructure development is a farfetched discussion, it is worth mentioning as a
possibility. Overall, although this industry gave India a chance to portray its business acumen in the global world and better, a chance to improve the quality and lifestyle of its working class, what it never gave is a reason to completely rely on this industry, the recent recessions proving the same. However, like any other industry, this industry too has its good and bad, and in our analysis we have found that it does more good than its contribution to the bad, Hence, this industry undoubtedly is one amongst those, that gave India the wings to propel into the next level of industrial revolution.

BIBLIOGRAPHY:


CompTIA. (2012). Information Technology :Generating Growth and Jobs for the US Economy .compTIA.


DINODIA Capital advisors.(2013, May).Overview of the Indian IT sector,Out with the old ,ITwith the new: DINODIA capital advisors.

NASSCOM.(2012). Domestic IT-BPO.NASSCOM.


The Economic Intelligence Unit Limited.(2013). Telecoms and technology report, India.London : The Economic Intelligence Unit Limited.
