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# THE ROAD AHEAD FOR THE INDIAN IT AND ITES INDUSTRY CONSIDERING ITS SERVICE OFFERINGS, DOMESTIC MARKET AND TECHNOLOGY TRENDS

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**ABSTRACT**

Offshoring has been a popular mantra over the past two decades. The Indian Information Technology (IT) companies are finding ways and means to retain their competitive advantage by changing delivery locations and giving value added services offering. This paper delves into the current state of the Indian IT services industry and attempts to find out the domestic IT services opportunity from perspective of Indian IT vendors. The paper attempts study the domestic IT market also explores the future of the Offshoring revolution for the Indian IT industry. The papers throws light on the domestic opportunity that are still left untapped and proposes a model for outsourcing, which can be adopted by Indian IT giants for long term sustainability of business.

**Keywords:** *Outsourcing, IT services, Domestic IT services, Indian IT Industry, Sustainability of Business*

## 1. INTRODUCTION

The Indian IT industry has been experiencing double digit growth since the last 20 years since its inception. The Indian IT industry is currently experiencing challenges in sustaining this growth. In order to cater to the growth in need of IT services across the globe, various companies have started venturing away from self sufficiency in their way of conducting business to identifying specific processes that can be developed by some other company in order to reduce costs and focus on their core business (Niehaves and Plattfaut, 2011). The global software services market was valued at $150 billion in 1990 (Sparrow, 2009). The global economy is expected to improve with the global GDP predicted to grow by 3.5% in CY2013 and 4.1% in CY2014. The total global IT spend is expected to grow in the range of 5-6% over the next two years and global sourcing is set to grow faster at roughly ~8% during 2013 and 2014. Ankita Somani (2013) has stated that although India is the global sourcing leader it accounts for only approximately 10% of the total global IT spend of US$124-130 billion. This means that there is a huge untapped opportunity. The North American markets currently contribute to roughly 70% of the revenue of the Indian IT service companies. The problems in the US economy are- slowing down the growth rate of the Indian IT industry due to the reliance of the industry on the North American markets. The growth rate for the Indian IT sector has slowed down in the last couple of years. Every industry has been impacted by outsourcing in both positive ways and with caveats (Niehaves and Plattfaut, 2011) Considering the competition India faces with countries like China, Russia, etc. (Espinosa et al., 2007a, b), it is important for India to manage sustainability even though it still has "competitive advantages" like educated workforce, quality focused processes, etc. (Espinosa et al., 2007a, b).

India IT industry's lion's share of business is from the United States and the United Kingdom. This is certainly a risky proposition as the complete dependency on one country is not a good business model. Further, the international outsourcing model has always been hit by the recession in the international market. The above factors have made the global market space more challenging, resulting in making the Indian IT players to rethink its strategy and business model. We believe that there is a strong need for the Indian IT players to broaden their horizon and look for alternative avenues of growth which are less volatile and less affected by the global scenario. Based on the current scenario, we present a strong case for the emergence of a huge untapped market in the domestic IT space.

This study is organized as follows: the first section discusses the globalization of the Indian IT industry namely its origins, markets, service offerings, global technology spending and the

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domestic markets along with the emergence and growth of outsourcing and offshoring. The second section looks at the vendors (Indian IT companies) operating in this space, their relative strengths, their service offerings and their contributions to the growth of the Indian IT industry via offshoring of services. The third section discusses about the competitors (IT MNC's) operating in this space, comparative analysis of their service offerings vis-a-vis the Indian IT vendors, offerings and presence in the Indian domestic market. The fourth section proposes a model for outsourcing, which can be adopted by Indian IT giants for long term sustainability of business.

## 2. THE INDIAN IT INDUSTRY

The Indian IT Industry is a major player of the global IT sourcing market. The Indian IT industry had accidental origins. The Indian IT industry did not exist in the 60's and 70's. The two main players in India selling computers in the 60's and 70's were IBM and ICL. These vendors provided hardware bundled with software namely COBOL and FORTRAN. The Indian government regulations charged a heavy custom duty (300%) on import of computer hardware As a result large companies (Indian defense units and large Public sector units) could only afford computing facilities and had in-house resources developing custom applications.

The Indian IT Industry started in the 1970's to its current state. TCS was the first IT Company which started in the year 1968 (Ramadorai, 2011). TCS was initially focusing on providing software services for the in-house needs of the TATA group. TCS obtained its first big export assignment in 1973–1974, to build an inventory control software solution for an electricity generation unit in Iran (Ramadorai, 2011). At the same time, TCS also developed a hospital information system in the U.K. in collaboration with Burroughs Corporation (Ramadorai, 2011). Burroughs at that time was the second largest hardware company in the world. TCS thus established a footprint for the export of IT services and was a prime mover in the creation of the Indian IT industry. TCS via its software exports and collaborations became a role model for other Indian IT companies.

## 3. THE OUTSOURCING LANDSCAPE

The global software services market was valued at $150 billion in 1990 (Sparrow, 2009). Gartner defines IT outsourcing as the use of external service providers to effectively deliver IT-enabled business process, application service and infrastructure solutions for business outcomes. As per Gartner outsourcing helps clients to develop the right sourcing strategies and vision, select the right IT service providers, structure the best possible contracts, and govern deals for sustainable win-win relationships with external providers. Outsourcing can help companies reduce costs, accelerate time to market and also take advantage of an external pool of resources. Outsourcing by definition is global in nature since the client could be anywhere in the world and the vendor could be located close to the client or in some other country. The reasons why companies outsource are to save costs, time to market, competitive edge, and tap external resources so as to have internal resources focus on critical projects in-house. The Indian IT industry added the dimension of Offshoring to Outsourcing. The major IT MNC's were focusing on Outsourcing wherein the work outsourced was performed on site or near shore in the same country as the client. The Indian IT industry changed the work execution of the Outsourcing work by moving the work offshore namely to India. The advantage which companies gained by Outsourcing to Indian IT companies were lower costs (due to labor arbitrage), a 24*7 working model also called as follow the sun, a global production chain and also access to a huge talented pool of software developers. This was a game changer which made India the destination for IT outsourcing. This was facilitated further by the Indian government opening its economy (liberalization), the development of STP (Software Technology Parks) and SEZ (Software Export zones). At the same time the cost of telecom links was decreasing thus making the world an inter-connected place. The Indian IT companies used the telecom links to facilitate access to client computing environments thus making the Outsourcing work available offshore.

The initial set of work done on offshore services was making applications Year 2000 compliant. This was done since the amount of applications which the US Corporation had to make Year 2000 compliant was a large number. This could not be possible by bringing in resources onsite to make them compliant. The number of applications ran into thousand and the lines of code to be made compliant in these applications ran into Millions. This piece of work was managed by shifting pieces of the work involved in making the applications Y2K compliant offshore. The work involved namely System Analysis, Code Analysis, Code Changes, Unit Testing was sent offshore. The balance work in making the application Y2K

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compliant was onsite centric namely Systems Testing, Regression Testing and Implementation and was done onsite in co-ordination with the client staff by the Indian IT Companies. This created the delivery model of offshore services. The offshore services model got further cost arbitrage due to the telecommunication revolution. Data Communication services are a necessity for offshore services since these links provide access to the client's IT resources namely the IT networks, servers, hardware and also licensed software used by the client. This service delivery model was further advanced by the advent of the internet. Offshore services are today completely dependent on the cheap and reliable data connectivity that the internet provides. The smallest of the Indian IT service provides can connect with its clients using VPN. This facilitates both IT service providers and clients to get into the offshore game.

The Cost of Service was changed by offshore services due to the reduced cost of IT labor. The cost or salary paid to an IT worker based offshore in a developing country was lower than the salary or cost of an IT worker in a developed country. The Aberdeen Group found that average annual IT salaries in 2001 were $4,750 in China, $5,850 in India, and $7,500 in Russia. As per Aberdeen estimates offshore contractors deliver application development, maintenance, legacy migration, systems integration, and related services at an overall cost from 30 percent to 65 percent less than in-house initiatives in developed countries. At the same time this added more revenue to the Indian IT company since the cost of service had reduced. This also reduced the expenditure since the Indian IT company did not have to send its entire team onsite so travel costs, visa costs and living costs in the developed country were saved.

A lot of outsourcing work also came to India also due to the availability of a large pool of skilled professionals. India at that time was second only to the U.S. in producing English-speaking scientific professionals. In 1999–2000 more than 185 Fortune 500 companies—that is, two out of every five global giants—have outsourced some of their IT requirements to India (Gupta, 2001). The number of software professionals employed here increased to 250,000 in 1998–1999, up by 25% from the preceding year. (Gupta, 2001) All the above factors were congenial to make India the Outsourcing Destination of the world.

All of the above factors were differentiators for India as an Outsourcing destination. At the same time there was an interesting paradox developing over a period of time. The biggest unique selling proposition (USP) and the single most potent factor for India was the cost arbitrage which was due to the salary of Indian IT technology worker was far more lower as compared to the salary of the US technology worker. This is no longer the case since we now have more and more developing countries like Manila (Philippines), Vietnam, China, Russia offering the same USP of the cost arbitrage. In order to compete with the newly emerged competitors the Indian IT industry changed strategy to offer more value added services like domain competency, process knowledge, Service level agreement based delivery, Reward and Penalty contracts.

But the advantages of these value added services were short lived since the same were now being offered also by IT companies from Philippines, Manila, China and Russia. At the same time the biggest source of Outsourcing of IT was being done by only one country in the world namely the United States of America (USA). So there was now a skewed distribution wherein we had competitors from India, Philippines, China and Russia vying for the same piece of work from one country namely the USA.

In light of the above there was one aspect which the Indian IT companies had not explored to its full potential and that was the domestic market. This was despite the IT MNC's gaining ground in the Indian IT market and garnering major outsourcing contracts in the Indian market.

The NASSCOM Indian IT-BPM Industry FY2013 Performance Review, FY 2014 Outlook provides an interesting piece of Information. As per this report the domestic market is the fastest growing IT market in the world. In fact it outperforms the Software Exports market. The YOY (Year on Year) growth of 14.1 percent (Figure 1) makes the domestic market growing very fast. The domestic market grew from INR 918 billion to 1047 billion. These numbers exclude hardware sales. The total domestic market sales has been broken up into IT services, BPM (Business Process Management) and Software Products. Even within the total sales in the domestic market IT services saw the fastest growth at 14.5 percent while BPM grew at 12.7 percent. As per the BCG–CII REPORT ON IT ENABLEMENT OF INDIAN BUSINESS (IT for India — New Horizons, New Opportunities 2013) the IT market in India for the year 2011 is estimated at INR 99,700 crores. The IT services segment has the largest share at 50 percent of the total market, followed by the hardware

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segment at 32 percent. As per BCG-CII (IT for India — New Horizons, New Opportunities 2013) the Indian domestic IT market is expected to grow to INR 175,400 crores by 2016 (Figure 2). This translates to a growth of 12%. As per the research firm Zinnov the Indian domestic IT market is expected to grow between 15-18 percent in 2013. Zinnov states that while the IT exports market is getting a mixed feedback, the Indian domestic IT market holds significant potential for 2013.

The main thrust of the domestic market comprises of Managed services, Unified communication, collaborative applications and EAI (Enterprise Application Integration) of core applications. The Indian market is the fastest growing for the mobile space. The number of mobile users makes India the second largest country in number of mobile users. There are a lot of enablers for the domestic market which makes it the fastest growing market in the world. NASSCOM has also identified six enablers which can make the domestic IT lucrative. The first enabler is the Mobile apps market, due to the large number of mobile users. The second enabler is the Cloud environment. Cloud Computing Technologies are being embraced by the Indian consumer. The third enabler is the outreach of the SMB's (Small and Medium Businesses) which are embracing IT. The fourth enabler is the Government via its accelerating economic reforms leading to liberalization. The fifth enabler is that IT is now seen as a critical enabler for inclusive growth and transformation. The sixth enabler is that Internet and Ecommerce companies are driving IT adoption.

The Global Sourcing market (Figure 3) as per NASSCOM continues to grow faster than the global technology and services spend; growing twice as fast as global IT spend. The Global Sourcing market had a Year on Year growth of 9%. The key driver for Outsourcing remains cost along with simplification and standardization. NASSCOM (Figure 4) also states that the Global IT-BPM market grew 4.8 percent in 2012 with the APAC (Asia Pacific) region recording the highest growth of 6 percent.

As per NASSCOM (Figure 5) the Global IT-BPM spend is expected to touch US$ 2 trillion in 2013 which is a Year on Year growth of over 5 percent. Despite the economic instability the year 2012 recorded a steady growth for technology and related services sector with a worldwide spending of USD 1.9 trillion, a growth rate of 4.8 per cent over 2011. BPM services grew at 4.9 per cent contributed majorly to the growth. This was followed by IT services and packaged software each with 3.3 per cent growth. IT, BPM services and software products continued to lead with a contribution of over US$ 1 trillion – 58 per cent of the total IT spends. IT hardware with a growth rate of 7 per cent, touched USD 797 billion and accounted for the remaining 42 per cent of the worldwide technology spend in 2012. The global sourcing market also grew to USD 124-130 billion, a growth of 9 per cent over 2011 – nearly twice the growth of global IT spend. APAC spend grew 6 per cent, nearly 1.6X faster than mature geographies. IT spends of Americas remained steady at 5 per cent and EMEA recorded a minimal growth of 1 per cent over 2011.

According to Gartner (Table 1) the ranking of Indian IT vendors in the worldwide revenue there has been no perceptible change. The top 5 Indian IT vendors namely TCS, Cognizant, Infosys, Wipro and HCL Technologies are not figuring in the top 10 IT service providers in 2013. The market share of these vendors considering the global IT spend has not increased. The market share as of 2011 was 3.5 percent and as of 2012 was 3.7 percent. This also leads us to the conclusion that the ability to garner more business from the global markets for the Indian IT vendors is not working out as is evident from the data above. This necessitates a rethink in their strategy to look at the domestic work for revenue growth and also in terms of better deals and volumes.

## 4. STRATEGY PROPOSED FOR LONG TERM SUSTAINABILITY

This section focuses on the strategy needed for long term sustainability by India IT companies. The strategy details out the missed domestic opportunities that are still left untapped. The strategy also proposes a model for outsourcing, which can be adopted by Indian IT giants for long term sustainability of business. Figure 6 is a diagram showcasing the service offerings on a XY plot with Skill on the X-axes and Value Addition on the Y-axis. This figure (Figure 6)as shown has four Quadrants namely Q1 – Low Skill, Low Value Addition, Q2 – High Skill, Low Value Addition, Q3 – Low Skill, High Value Addition and Q4 – High Skill, High Value Addition.

This figure (Figure 6) needs to be observed in the context of work being done by the Indian IT companies for the export markets. The Indian IT companies have traditionally been focusing in Q1, Q2 and Q3. Lately the Indian IT companies have been also been operating in Q4. The Indian IT

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companies saw tremendous growth by operating in Q1, Q2, Q3. In order to sustain their growth despite the recession in the North American markets they started service offerings in the Q4 quadrant. The services in Q4 are high skill, high value which has traditionally been the domain of the IT MNC's. But despite the strong growth initially got by operating in Q1, Q2, Q3 and then shift to Q4 the Indian IT companies have not been able to maintain their double digit growth rates. This leads us to the fact that the Indian IT companies should look at the domestic market which could be a missed bus to sustain despite the recession in the North American markets. The Indian IT companies can work in all quadrants namely Q1, Q2, Q3, Q4 in the Indian domestic market. This market has tremendous potential for the Indian IT companies to provide business in all these quadrants where they have various service offerings. The quadrants Q1, Q3 and Q4 can provide a lot of business which is now being taken away by the IT MNC's. The Indian IT companies can use the Indian domestic market is a cushion to help them sustain shocks and tremors coming in from the North American markets or other geographies which provide business. The Indian IT market is a Greenfield arena and can also be a "rain maker" for the Indian IT companies to sustain. The potential of this market is huge and is now being milked mostly by the IT MNC's. Also there is a lot of technology initiatives which are happening namely the creation of the Indian MNC's , the fact that India is the second largest base of cellular phone users, the technology initiatives of the Indian government, the automation initiatives in the SME (Small and Medium Enterprise).

The domestic market opportunity needs to be understood in context with MOV (Measurable Organization Value). Traditionally all IT projects and Outsourcing deals are measured on the basis of "Return on Investment," or ROI. Jack Marchewka a business professor at Northern Illinois University came up with the idea of "Measurable Organizational Value" (MOV). MOV represents a similar concept but with a d different definition. A project's MOV is its "overall goal and measure of success". Conventionally IT projects are complex and have many a times not delivered on budget, schedules, quality. This leads them to being considered wasteful in the resources that end up being consumed eventually. All of this can be avoided with due diligence in Project Planning. It is here that MOV helps. MOV can help steer projects which are constantly changing due to moving elements (scope, requirements, resources, schedules) by providing a reference point to ensure that progress or any new developments are in the line with the Project objectives, goals and business case.

The Indian IT companies can use MOV as their USP (Unique Selling Proposition) to tap the domestic market which is very price sensitive. This can be a differentiator for the Indian IT companies. Every company has a business model which primarily works with the intention of making profits or financial progress. By using MOV an Indian IT company can demonstrate to any client that the project would help make the company financially productive. This makes it necessary to have an attainable MOV. Thus the Indian IT Industry can make the MOV as the fundamental justification for a project to be undertaken. It can be used as a selling point to decision makers and also as a tool for ongoing measurement that the project is staying on track.

The MOV alongwith C K Prahlad's theory of the Bottom of Pyramid can be used to address the domestic market by the Indian IT companies. The Indian economy has a major section of enterprises comprising of the SME's (Small and Medium Enterprise). These constitute a major chunk of clients who need automation and do not have any automation strategy. This is required since the Indian economy is experiencing churn and SME's are looking at automation to cut down their costs. The Indian IT companies can offer services in Q1, Q2, Q3 and Q4 to the Indian domestic market with a reduced cost. This reduced cost alongwith a project MOV as a guideline can provide the Indian IT companies access to the Indian domestic market's BOP segment which comprises the SME's. This would be a competitive price which the IT MNC's can't compete with the Indian IT companies. The reasons for this are the IT MNC's salary structures in India and also the margins at which the business would have to be executed for the Indian SME's automation will not make it a viable proposition for the IT MNC's. This on the other hand is achievable for the Indian IT companies. So by tapping the domestic market the Indian IT companies add volume to their revenues and also built up a strategic market to fine tune their skill sets, competencies and also a laboratory for projects on futuristic technologies. This then can be used as a baseline and bench mark for execution in the software exports markets. At the same time the deal size for this segment makes it unviable for the IT MNC's.

The domestic market thus can be a potential for the Indian IT companies to tap on and make them

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transition from the conventional Indian IT Company to a world class IT MNC.

## 5. CONCLUSION

The Indian IT industry is experiencing pain in its path of growth. The pain is primarily due to its focus on North American and European markets. These markets are experiencing churn and also reluctance to go beyond its current limits of work to be sent offshore. In light of the same the domestic markets offer an alternative path of growth and also a pilot market for services which are currently the domain of the IT MNC's. This path has been neglected due to the yearning for a revenue stream in US $'s considering the price differential and the salary difference of an Indian IT resource vis a vis US IT resource. At the same time since the revenue streams in $'s are drying up it could potentially mean that as a changed strategy the Domestic market coupled with an MOV would offer ROI to the domestic market clients and an opportunity for the Indian IT companies to move forward and sustain themselves besides growth.

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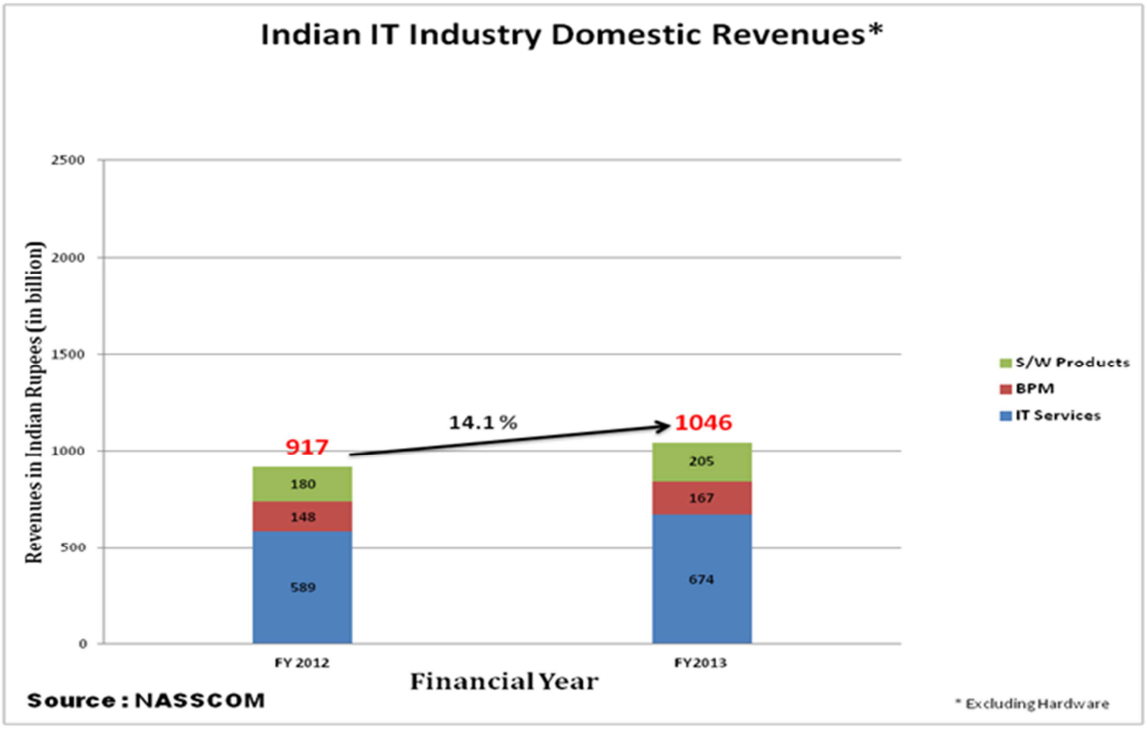


*Figure 1: Indian IT Industry Domestic Revenue For FY2012 And FY2013*

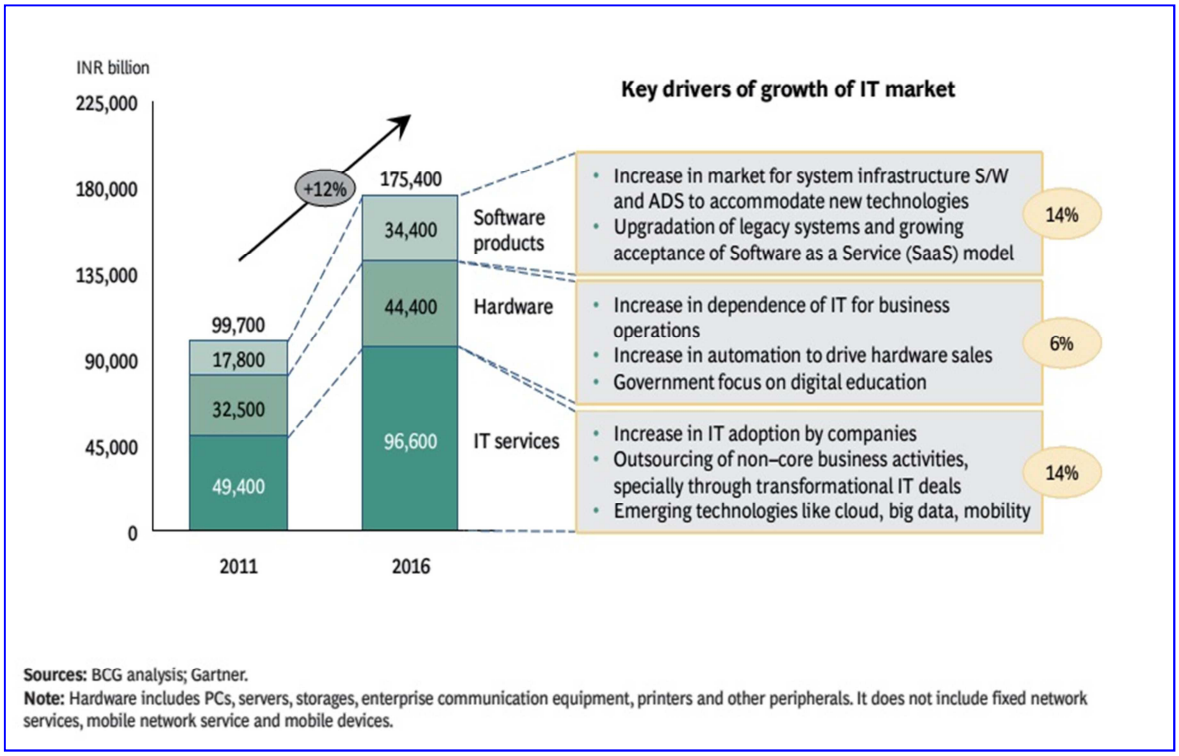


*Figure 2: BCG–CII Report On IT Enablement Of Indian Business*

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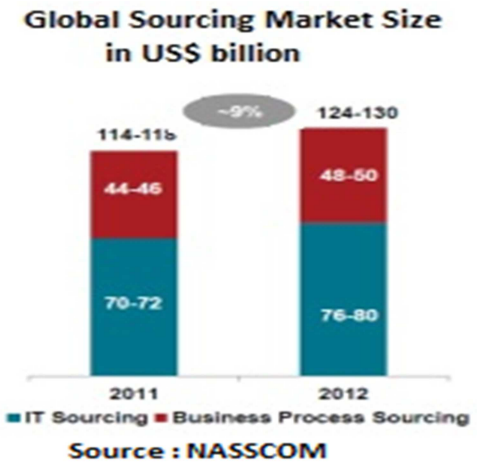


*Figure 3: Global Sourcing Market Size (in US$Billion) - NASSCOM*

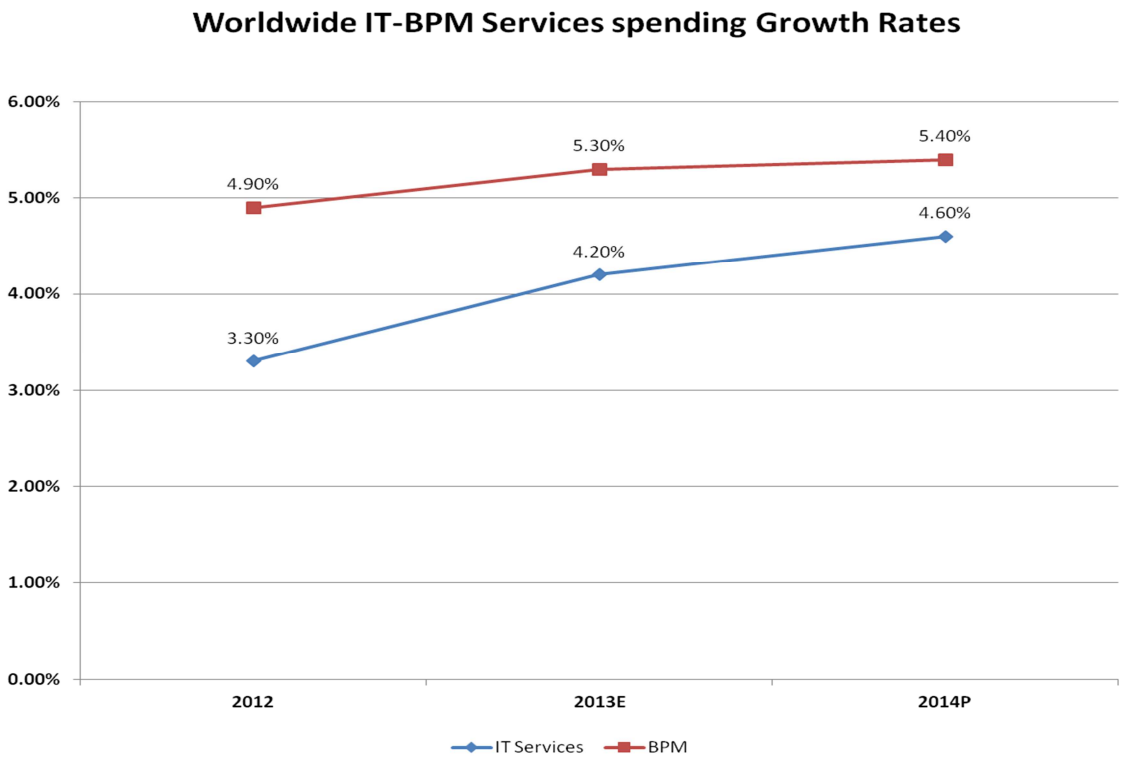


*Figure 4: Worldwide IT-BPM Services Spending Growth Rates*

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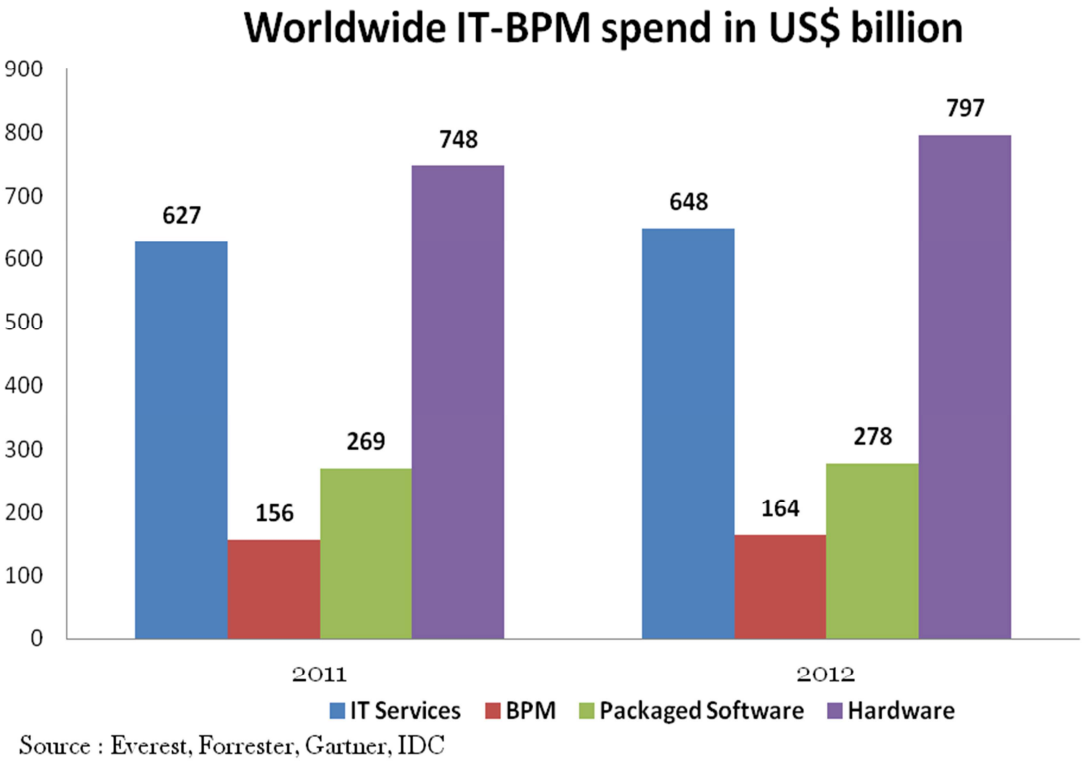


*Figure 5: Worldwide IT-BPM Spend (In US$ Billions)*

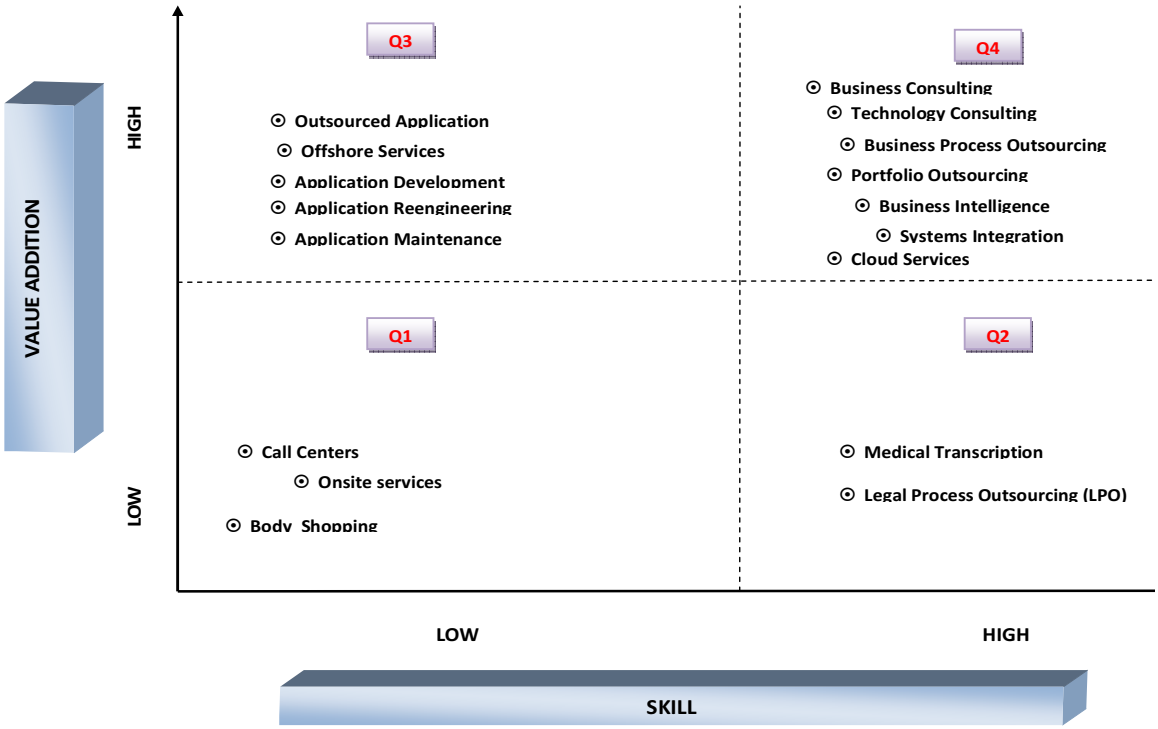


*Figure 6: Skills Vs. Value-Addition*

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*Table 1: Top 5 India-Based IT Services Providers' Worldwide Revenue, 2012 (Millions of Dollars)*

| Company | Global Ranking 2011 | Global Ranking 2012 | 2011 Revenue | 2012 Revenue | 2012-2011 Growth (%) | 2011 Market Share (%) | 2012 Market Share (%) |
|---|---|---|---|---|---|---|---|
| **TCS** | 16 | 16 | 9,451 | 10,888 | 15.2 | 1.1 | 1.2 |
| **Cognizant** | 28 | 23 | 5,875 | 7,053 | 20.1 | 0.7 | 0.8 |
| **Infosys** | 27 | 26 | 6,279 | 6,691 | 6.6 | 0.7 | 0.7 |
| **Wipro** | 31 | 31 | 5,334 | 5,737 | 7.6 | 0.6 | 0.6 |
| **HCL Technologies** | 47 | 41 | 3,316 | 3,916 | 18.1 | 0.4 | 0.4 |
| **Total** | | | **30,255** | **34,285** | **13.3** | **3.5** | **3.7** |