

**Growth Strategies and Institutional Constraints of Indian IT Multinationals Operating in  
Australia: A Review of Literature and Exploration of Antecedents**

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# **Growth Strategies and Institutional Constraints of Indian IT Multinationals Operating in Australia: A Review of Literature and Exploration of Antecedents**

## **Abstract**

*Over the past decade, Indian multinational corporations have made a huge impact in terms of their overseas operations in foreign countries, making India the second leading foreign investor behind China. Much of the focus however has remained on investing and operating in more traditional and established developed markets, like UK, Europe or USA. Not much attention has been paid towards understanding how Indian multinational corporations operate in newly emerging and developed markets, like Australia. This paper presents a detailed account of the literature on Indian IT firms and sheds light on their unique characteristics, and behaviour. It provides particular insights into their IT services, major multinationals, outward FDI policies and institutional constraints with regards to their operations in Australia. The paper highlights the significance of India's IT investment in Australia and trade relations between the two countries.*

**Keywords:** FDI, MNE, IT, India, Australia.

## **Introduction**

The literature on the rise of multinational enterprises (MNEs) from emerging economies and their operations in developed countries has been the subject of growing interest in recent years (Pradhan, 2008; Gammeltoft, Filatotchev & Hobdari, 2012; Yin & Jamali, 2016,). Emerging multinational enterprises (or EMNEs) have not only become global players but also have started challenging Western established multinationals located in advanced countries within short periods of time (Awate et al. 2012; Pillania, 2009). However, this fact has been under-researched in the literature as majority of research has focused towards understanding multinationals from developed countries into developing countries than vice versa (Nigam and Zhan, 2011; Gammeltoft, Filatotchev & Hobdari,

2012. In this respect, it is argued that no other emerging economy and its multinationals have shown more promise by playing a leading role in the internationalisation process than India and Indian MNEs. Not only, is India a leading destination for foreign firms when it comes to inward investment (Nigam and Zhan, 2011) but India has also emerged as a major exporter and provider of software and informational technology (IT) services to the world (Arora and Athreye, 2002; Joshi, Singh, & Sidhu, 2012.). For instance, in 2010-2011, the Indian IT industry generated revenue of US\$ 88 billion with total exports contributions of 26 percent, and employing 2.5 million people (NASSCOM, 2011). This indicates an increasing number of Indian IT MNEs operating overseas, and investing in establishing offices, developmental centres, joint ventures and subsidiaries (Narayanan and Bhat, 2011).

Traditionally, the major foreign export and investment markets for Indian IT firms have been the United States which accounts for approximately 62%, and Europe, including the United Kingdom which accounts for approx. 24% of the total revenues (Agrawal and Thite, 2003; Narayanan and Bhat, 2009; Pradhan, 2007). However, due to increasing competition, Indian IT multinationals are looking towards reducing their dependency on the US market by expanding their market base to newer developed markets, like Australia and New Zealand (Agrawal and Thite, 2003). This has significantly changed the focus of India's IT investment as Indian IT firms whilst operating in the US market are now also playing an increasingly important role in the Australian market and are contributing greatly to Australia's economy (Stacey, 2014). For instance, in June 2009, Infosys had announced that it has been chosen by Telstra as a key strategic partner to support its five-year AUD\$ 450 million application development and maintenance contract. Similarly, Birlasoft has been named among the top 10 best outsourcing service providers in Australia and New Zealand region, by the International Association of Outsourcing Professionals (IAOP) in their list 2009 Global Outsourcing 100 (Indo-Australian BT Report, 2009). Accordingly, Australia has become a popular destination for India and Indian IT firms while the Australian government is keen to promote foreign investment and bilateral ties with India in order to accelerate continued growth and flourish (Penter and Pervan, 2009).

Interestingly, while Indian IT firms are growing and continuing to expand their presence in the Australian market, not much is known about their mode of operations in Australia; for example, what are the institutional constraints that Indian MNEs are experiencing in Australia and the policy implications made by the Indian government towards outward foreign direct investment (OFDI) of its firms. The aim of this paper is to provide a critical account of the Indian IT industry (including its multinationals) and initiatives of home-country to go overseas and what institutional factors it's IT MNEs are experiencing when operating in Australia. This is particularly important as the literature on Indian IT firms in Australia (and India-Australia trade relations) is yet to document how Indian IT MNEs manage their operations in Australia, their importance for the Australian market and the economy as well as key issues that influence their local operations. The paper thus contributes to enhancing our understanding of the way Indian IT MNEs operate and manage their operations in Australia which is a growing destination for many multinationals from emerging economies, like India and China. This theoretical paper employs literature review as a method to collect secondary evidence from journal articles, company reports, government policies and reports.

The structure of the paper is as follows. The paper first starts by providing a detailed account of the IT industry of India which includes its IT services sector, its major multinational enterprises operating in Australia. In the later parts, the paper focuses on Australia as a host-country destination for Indian IT firms. Some of the issues discussed under this section include an overview of Australia's economy and foreign investment, policy initiatives taken by the Indian government to promote outward foreign direct investment (OFDI), key institutional constraints for Indian and foreign multinationals, and finally, concludes by highlighting India's IT investment in Australia.

### **The Indian IT Industry**

The Indian IT industry is one of the most rapidly growing IT industries in the world. It was started in the 1970s, when the Indian government encouraged exports by allowing firms to develop software's in exchange for computer hardware imports (Athreya, 2005). Initially, the bulk of the Indian IT

industry was centered on few clusters, Bangalore being the main hub for its location - branded as the Silicon Valley of India (Arora and Bagde, 2006). However, as technology progressed the Indian software industry witnessed significant growth around the country and progressed faster when measured against the performance of other industrial sectors in India (Athreye, 2005). For instance, during the 1990s and 2000s, the Indian IT industry was worth US\$ 5.7 billion while ten years back it was only worth US\$ 150 million (Chakraborty and Dutta, 2003) showing the level and speed at which it has grown. In recent times, this domestic share of the Indian IT industry has grown substantially from US\$ 15 billion approximately to US\$ 17.4 billion (excluding hardware sales) making it one of the largest sectors of the country (Kathpalia and Raman, 2014).

Interestingly, although India's domestic IT market is growing fast; it is India's IT exports (in particular, software and services exports) that have become its key growth indicator (Chakraborty and Dutta, 2003). For instance, Indian software exports were about US\$ 128 million annually in the 1990s and grew to US\$ 12.2 billion by the early 2000s (Arora and Bagde, 2006). In fact, in the last 10 years or so, the Indian IT export sector has grown at an annual average rate of 30%, with exports in 2008 reported to be close to US\$ 60 billion (Bhatnagar, 2006). And by 2015 it is expected that this sector will be so strong that it will generate revenues of US\$ 130 billion, generating 14.3 million in employment opportunities (NASSCOM, 2011). The Indian IT industry has become the most important contributor to growth within the Indian economy – one that changed the image of the country from being a rural, agricultural and heavy-industries based economy to one that is knowledge and technology orientated (Chatterjee and Heuer, 2006; Nagaraj, 2000). Figure 1 provides a geography-wise split of India's IT exports, indicating UK and UK to be the key export markets for Indian IT firms.

The Indian IT industry, however, is segmented. For the purpose of this study, the Indian IT sector will be divided into two broad categories:

1. IT Hardware sector (ITHM); and

2. IT Software and Services sector (ITSS/eS) (includes software services and IT-enabled services such as consulting, maintenance, business process outsourcing etc.).

(Figure 1 goes about here)

### ***The Indian IT Services Sector***

The IT industry in India has come to be dominated by its software and services (ITSS/eS) sector (Kumar, 2011), with over 80% of exports coming from this sector alone (Arora et al, 2001). Central to the growth of this industry was the Indian government's initiative to set up software technology parks (STP), where 100% export-oriented firms were received tax-free exemptions and access to office-space, computer equipment and internet connections (Athreya, 2005; Vaidyanathan, 2008). The result was Indian firms exporting their IT services to more than 60 countries around the world, with two-thirds being clients from its US market, including half of fortune 500 firms (Bhatnagar, 2006). Such rapid developments have promoted India's status as a credible provider of IT services and a preferred base for outsourcing of operations to overseas firms and organisations. India now delivers its IT products and services on a global stage and at a competitive level that has not been seen in any other domestic industry of India since its independence (Taeube, 2004). It is projected that by 2020, export of IT services from India will reach US\$ 200 billion as forecasted by India's National Association of Software and Services Companies (NASSCOM) (Gupta, Pande and Wang, 2014).

Although there are economic factors (such as, government initiatives and policies) that have fuelled the growth in this industry; scholars suggest this advantage lay in the opportunities that outsourcing to India gave to foreign-based organisations to reduce their costs, increase productivity and use Indian firm's large pool of resources (Chiamsiri, Bulusu and Agarwal, 2005; Kathpalia and Raman, 2014). For instance, due to the labour-market conditions in India, there is a huge cost arbitrage for Indian IT services firms that has allowed them to offer their services at cost-efficient prices (Chakraborty and Dutta, 2003; Kumar, 2011). Furthermore, the ease with which Indian IT firms have managed to scale

their operations (up or down) has also had an impact on their overall growth and success (Kumar, 2011). As a result, Indian firms have managed to create competitive organisations that not only operate within their home country but also in countries where their customers are located (Cappelli et al, 2010). Furthermore, scholars have also attributed the success of Indian IT firms to a business model, which many firms have adopted and perfected, as it allows them to outsource their service offerings to the world (Athreye, 2005). For instance, Indian IT services firms develop customised softwares using a “Waterfall Model” that involves a number of various stages – i.e. Requirements analysis, high-level design, low-level design, coding, testing and post-production support (Arora et al, 2001). And while some Indian firms specialise in the entire software development cycle of this model, others simply specialise in its particular stages or processes (Malik, 2009).

In addition to the waterfall model, Indian IT firms also use a number of global delivery models (GDM) to outsource their service offerings to the world. One such widely used model that Indian IT firms rely on is the “Onsite-Offshore” model, which allows member of a project team to divide work between different locations. That is, while onsite staff work with the client (situated at the host location) to define project requirements and coordinate on regular intervals, the offshore team (situated at the home location, i.e. India) works on the substance of the project (Agrawal, Khatri and Srinivasan, 2012). This model forms the very foundation of delivery of IT services for Indian firms, as it allows them to adopt a “24\*7” mode of working, where they can utilise their large pool of human resources to work on projects round the clock (Kathpalia and Raman, 2014).

Two additional constructs important to understanding the delivery of IT services by Indian firms are the “Domains” (i.e. a particular type of service delivered and its associated skillset) (Choure, 2004) and “Verticals” (i.e. the different market or industry sectors to which the services are delivered). For example, Indian IT firms use their IT software and service-specific skills and capabilities to deliver their IT solutions across a range of domains, such as Java, Oracle and Cloud computing. Similarly, some of the vertical markets in which Indian IT services firms may specialise include industry sectors such as – healthcare, hospitality or finance. Over the years Indian IT software and services firms have

specialised in these different skill-based domains and industry verticals to enhance efficiency and effectiveness in their delivery of software and services. For instance, Indian IT firms develop customised software's using their domain knowledge for organisations that fall in different verticals (Arora and Athreye, 2002). Once in place, these software's need to be maintained and this is where the Indian IT firms provide support services (such as BPO, IT consulting and infrastructure management) that add another dimension to their delivery of IT services (Kathpalia and Raman, 2014).

### ***Indian IT Multinationals***

An essential characteristic of the Indian software and services industry is its MNEs (Dayasindhu, 2002) that have become synonymous with the country's economic growth and emergence as a global leader in IT (Gupta and Shapiro, 2014). These multinationals were created when indigenous firms operating in India's domestic IT services sector set-up their subsidiaries in foreign countries. For example, firms such as Infosys, Tata Consultancy Services (TCS) and Wipro, all of which are headquartered in India, have established their very substantial operations overseas (Jha, 2008). These firms are moving beyond their national borders and are looking for resources and technology to serve customers in high-end segments (Singal and Jain, 2012).

Interestingly, while there are a large number of Indian IT firms that are growing both domestically and internationally, the industry is still largely dominated by just a few indigenous firms, due to its pyramidal structure (Bhatnagar, 2006). In fact, among the total number of firms exporting IT services from India, about 3000 of its largest firms have each more than \$US 1 billion in annual sales, while the other 2900-odd have an average of less than \$US 10 million (Bhatnagar, 2006; Mathur, 2006). An example of this includes TCS, which has risen to annual revenues of \$US 1.17 billion; over 80% of which comes from outside India (Das, 2007). A vast number of firms operating in the Indian IT industry are in fact medium-to-smaller size organisations (Chakraborty and Dutta, 2003). Table 1 provides a list of the top 20 players in the Indian IT services sector. It is important to note that this list

includes some firms whose HQs are not located in India but they do have significant India-centric delivery capabilities.

(Table 1 goes about here)

Many Indian MNEs in the IT services sector have adopted a unique strategy in the delivery of their IT-centric solutions; namely, “Body-Shopping”. This term refers to a practice whereby IT firms recruit workers (on casual contracts) and send them to work on client premises for a particular project, however the firm itself may not be directly involved (Xiang, 2001). This practice of body-shopping has created huge employment opportunities; indeed Indian IT services firms have become the largest providers of temporary migrant workers from India (Thite and Russell, 2010; Xiang, 2001). Despite the challenges, this has made IT a viable career option for many young Indians (mostly middle-class) who are drawn towards the prospect of earning good salaries plus the opportunity to live and work outside India (Upadhya, 2006; 2007). However, to work in this industry most of the IT workers have to be engineering graduates that hold a bachelor’s or master’s degree in engineering (i.e. BEng/MEng) as well as qualifications in other computer-related fields, such as a bachelors or masters of computer applications – i.e. BCA/MCA (Upadhya, 2007). The following figure 2 indicates that Indian IT has relatively the highest share i.e. 9.5 per cent to the Gross Domestic Product (GDP) of India along with the largest private employer in India.

(Figure 2 goes about here)

### ***Home-Country Policies and Outward FDI***

According to Rasiah, Gammeltoft, and Jiang (2010), the response of Indian government for outward FDI can be categorized into three phases from restriction to liberalization started since 1991. Indian OFDI started in early 1960s with a very minimal scale with few investments in Sri Lanka and African

countries. Then, only limited number of joint-ventures were allowed on the provision of 50 percent of declared dividends had to be repatriated and cash remittances were not allowed at any form. Government's strategy to promote outward foreign direct investment (OFDI) was limited to South-South cooperation. With the pace of time when Indian technology, skill, brand-name were getting the status of global competitiveness, since 1991, Government gradually increased the ceiling of automatic approval of OFDI proposals, however, accelerated from the year of 1995 when India formally signed off with World Trade Organisation (WTO).

To provide a single window, all the matters related to OFDI were transferred from an inter-ministerial committee in the Ministry of Commerce to the Reserve Bank of India, the central bank of India. Another remarkable policy change was made by the Indian government in 2003 was that Indian firms were permitted to invest up to 100 per cent of their network. In 2005, it was raised up to 200 per cent which accelerated the process of acquisitions of foreign owned firms. Consequently, Indian acquisitions dramatically increased to developed countries dominated by IT, telecommunications and manufacturing sectors, for example, pharmaceuticals, automotive, steel, chemicals and consumer goods (Gopinath, 2007; Nayyar 2008). Indian financial institutions such as the export-import bank, Indian commercial banks also took part in the acceleration of OFDI process through their special support services. Most of the Indian IT MNEs such as TCS, Wipro, and Infosys also started expansion into both the developed large market of the USA, Australia as well as the smaller markets of Malaysia, Singapore.

### **Australian Economy, Foreign Investment and Indian Relations**

Historically, Australia has always been a country largely built on capital from abroad (in the form of FDI) and it remains in the 2000s one of the more popular destinations in Asia-Pacific for foreign investment (Yang, Groenewold and Tcha, 2000). Many sectors of the Australian manufacturing (such as motor vehicles, white goods) are dominated by MNEs, while its vast natural resources are predominantly owned by foreign enterprises (McDonnell, Stanton and Burgess, 2011). In 1990,

Australia was ranked seventh behind the US, UK, Spain, France, Belgium and the Netherlands as a favorite destination for FDI (Yang, Groenewold and Tcha, 2000). Similarly, between 2000 and 2002, Australia's inward FDI increased from AUD\$ 9.1 billion to AUD\$ 22.8 billion, with over 50% of capital coming from the US and UK alone (Faeth, 2010; see Figure 3). Australia's global share of FDI inflows increased to 3.5% in 2012 as compared to 2.8% in 2011 (Australia Trade Commission Report, 2012). The AT Kearney's 2013 FDI index suggested that Australia was ranked in sixth place for FDI investment with annual revenues of more than US\$ 2 trillion.

The reasons for this popularity with regards to India's FDI investment into Australia are many. With 40% of its residents coming from migrant backgrounds, almost 1/6<sup>th</sup> of its population speaks a language other than English (Patrickson and Hartmann, 2001). Moreover, as compared to other Western countries, Australia has a highly educated workforce of 11 million, with 33% of its population having attained tertiary education (De Cieri et al, 2009). Australia's political and social environment is stable and supportive to foreign companies and MNEs to establish their affiliates and subsidiaries (Johnston and Menguc, 2007). Australia is also in the rare position as it has a strong European culture but being geographically located in the rapidly growing region of Asia-Pacific (De Cieri and Dowling, 1997). The climate for foreign investment in Australia has also been more accommodating towards foreign investment in recent years because the Australian economy has become very internationally trade-oriented (Kalfadellis, Gray and Freeman, 2006); since the 1980s, it has moved away from a previously inward-looking and fiercely protected or restrictive economy towards one that is highly competitive, open and outward focused (Nolan, 1996).

(Figure 3 goes about here)

### ***IT Industry Comparisons Between India and Australia***

Joshi, Singh and Sidhu (2012) provided an account of IT industry comparison between India and Australia in their empirical work. They indicated that the Indian software market's compound the

annual growth rate (CAGR) for 2005-2009 was 32 per cent compared to Australia's growth of 5.5 per cent. The worth of Indian software market was \$1.99 billion in 2009 whereas for the same time, Australian market was at \$4.39 billion. In 2009, the annual growth rate of Indian software market was 10.1 per cent compared to that of Australian software market 5.4 per. Over the last decade, the Indian software market has been doubling in size every three years and this trend is expected to continue in future. In 2009, the biggest chunk of the Indian software market was the network and database management software with 24.5 per cent share in total market value followed by the total market value with 21.2 per cent. On the contrary, the general business productivity software occupied the largest share of 22.6 per cent closely followed by network and database management with 22.2 per cent (Datamonitor, 2010a, b).

### ***Institutional Constraints for Indian IT MNEs in Australia***

We document at least four key institutional constraints on the entry and operation of foreign MNEs in Australia, which are arguably generic for Indian IT MNEs. First, Australia has its own policy for FDI which allows for specific interventions by its federal government (Sadleir and Mahoney, 2009). Since the 1980s, the FDI policy in Australia has become more open and liberalized, along with flexible exchange rates and low tariffs on imports, in an attempt to encourage foreign investment, but the government [through the Treasurer] still assesses and sometimes rejects major foreign investments (Pratt and Poole, 1999; Sadleir and Mahoney, 2009).

Second, Australia also has a well-developed employment and industrial relations (ER/IR) system which mandates a wide range of minimum employment standards as well as permitting unions, businesses and employer associations to work with employees to bargain wages above these minima. The details of the system have changed significantly over recent years, but the extensive regulation most relevant to the IT industry has since 2009 come through federal legislation in the form of the Fair Work Act (Bray et al 2011). Minimum employment standards are contained in both the legislated National Employment Standards (ibid, Chapter 9) and many more industry-specific employment rules

contained in awards, including wages, hours of work and leave entitlements (ibid, Chapter 10). Legally, foreign businesses are obliged to meet these minimum standards when conducting their operations in Australia, with compliance being the responsibility of a statutory agency called the Fair Work Ombudsman. Beyond these minimum standards, higher wages and better working conditions for employees can be negotiated through either individual common law contracts of employment or through collective agreements.

Third, one of the most important regulatory requirements for foreign firms and MNEs involves adhering to Australia's immigration laws and policies. This is particularly important for skilled migrants (such as IT professionals), as they have grown significantly (at an annual rate of 12%) in the last few years to a total of over 200,000 (Masanauskas, 2013). Australia had a history of preference for encouraging permanent migrants until the mid-1990s, after which an increasingly popular temporary migration scheme developed. The most widely used temporary migrant visa is referred to as a 457 visa, its key characteristics being described by the Department of Immigration and Border Control (2013) factsheet as:

- The program is uncapped and driven by employer demand. This generally means employers will sponsor overseas workers more in times of high economic growth and low unemployment.
- Businesses can employ overseas workers for up to four years in skilled occupations only.
- Businesses must meet (or commit to meet) the prescribed training benchmarks for the program, which requires an ongoing commitment to training activities for Australian citizens and permanent residents.
- Strong worker protection measures are in place to ensure that overseas skilled workers are provided the same workplace rights as Australian citizens.

This temporary migration scheme has provided a mechanism by which both Australian domestic and MNEs have brought skilled workers to Australia, especially in the rapidly growing resources sector,

but also in the IT industry (Bahn and Cameron 2013). The constraints on the use of this visa appear significant: they are restricted to certain workers occupations; where there is a demonstrated skill shortage; they are of limited duration; they must be accompanied by training schemes and they must ensure that the temporary migrants receive the same employment benefits and rights as Australian workers. However, there has been considerable controversy over recent years about the number of such visas being issued and their consequences for a variety of domestic stakeholders (Bahn et al., 2012; Jakubowicz, 2013). Indeed, there have been some accusations that Indian IT companies operating in Australia have abused the system (Cooper, 2013). Another informal institutional constraint can be argued as disclosure of intellectual capital (IC) of a firm. IC disclosure covers an array of relevant firm indicators such as organizational culture, knowledge sharing, cultural diversity, employ productivity, management quality, and intellectual property (Joshi, Singh and Sidhu, 2012). Abeysekera (2008) specifies that IC disclosure is a very critical means to keep existing and potential investors informed about the overall conditions of the firm which is essential to survive particularly in an ever changing competitive market. With the findings of Joshi, Singh and Sidhu, (2012), it is evident that compared to Australian IT firms, Indian IT firms are on a higher scale in IC disclosure. It is argued that such limited disclosure pattern in Australia may inhibit Indian IT firms to attract institutional and public investors to grow and expand in Australian market.

### ***Australia and India Trade Relations***

There are significant differences between the economies of Australia and India in terms of economic growth, income distribution and future projections in economic development (Joshi, Singh and Sidhu, 2012). Over the last two decades, the Australian economy has experienced continued growth averaging 3.5% a year with contained inflation, low unemployment rate. Australia being an advanced economy like any other nations, the GRP growth of Australia is comparatively lower than India. On the contrary, Indian is a developing economy with a stable democracy having the second fastest growth rate in the world. The robustness of the Indian economy was demonstrated recently during the Global Financial Crisis. India recorded the growth rate of 7.2 per cent in 2009 while Australian figure

was 2.2 per cent. Australia Trade Commission (2015) characterised Indian economy of 2.01 Trillion economy, 11<sup>th</sup> largest global economy poised to be 2<sup>nd</sup> by 2030, Australia's 7<sup>th</sup> largest export market, and the outbound FDI of India has grown from AUD\$ 5 billion in 2003-2004 to AUD\$ 43 billion in 2013 & 2014 (in which Indian investment in Australia was approximately AUD\$ 11 billion).

Despite having such positive trends in Indian economy over the last decade, the trading links between Australia and India were historically limited, but they have increased substantially in recent years (Joshi, 2001; Choudhary, 2011). By 2004, Australian sales of goods and services to India were amounted to AUD\$ 6 billion (Richardson, 2005). By 2007, India was ranked as sixth largest importer of material goods and eighth largest importer of services to Australia (Mayer and Jain, 2010). Australia's interest in India has increased particularly because the Indian economy is the second fastest growing economy in the world, behind China (Mayer and Jain, 2010). Both Australia and India are apparently keen to tap into this opportunity to strengthen their bilateral ties and there have been moves to gain India the status of a "most favoured" trading partner and to explore a free trade agreement (Australia-India FTA Joint Report, 2010). The most significant industry for Australia-India trade includes sectors such as higher education, IT, infrastructure and manufacturing. There has also been increased Indian investment (FDI) in Australia over recent years, resulting of course in an increased presence of Indian MNEs:

*'With the recent opening of the Indian economy, however, flows of Indian investment into Australia have been rising, albeit off a low base. The stock of inward investment (including portfolio investment) increased almost nine-fold to approximately US\$ 758 million during the period 2002-07/08 reflecting average annual growth of 55 percent' (Australian-India FTA Joint Report, 2010, P. 26).*

Specifically, in IT a government report identified 26 Indian IT firms with significant operations in Australia in 2006 (Australia-India FTA Joint Report, 2010, P. 62). Many of these companies have not been publically conspicuous, but occasionally media outlets report some of the initiatives involving

Indian IT companies in Australia. For instance, one journalist prophetically wrote about the early entry of Tata Consultancy Services and Infosys into the Australian market (Philipson, 2002). In 2009, Indian IT giant Infosys announced that it has been chosen by Telstra as a key strategic partner to support its five-year AUD\$ 450 million application development and maintenance plan (Bingemann, 2009). Following such ventures, the Australian government is keen to promote foreign investment and bilateral ties with India in order to continue to grow and flourish (Penter and Pervan, 2009). In 2013, another example came with the enthusiastic promotion of initiatives made by the Australian subsidiaries of five big Indian IT MNEs (namely, Infosys, Wipro, Tata Consultancy Services, Mahindra Satyam and HCL) (Clarke, 2013). One of the most significant components of the Indo-Australia bilateral relations includes movement of people and development of knowledge between the two countries. The inflow of Indian IT professionals to Australia was recognised early as something of a phenomenon as more and more entered Australia on temporary business visas (Xiang, 2001).

## **Conclusion**

After briefly reviewing the literature on the Indian IT industry and its growing prominence in Australia, it is apparent that India's IT industry has grown enormously while its IT services sector has become the backbone of its economy. Moreover, firms in Indian IT services sector have adopted several business strategies and models that have made this industry distinctively unique. Despite the shortfalls and the usual formal and informal institutional challenges, Indian MNEs from the IT services sector have managed to establish a major presence in Australia due to their global competitiveness in term of providing quality services. Although Indian IT firms provide outsourcing services to Australian clients and customers, its large pool of IT professionals are a significant source of skilled migration to Australia.

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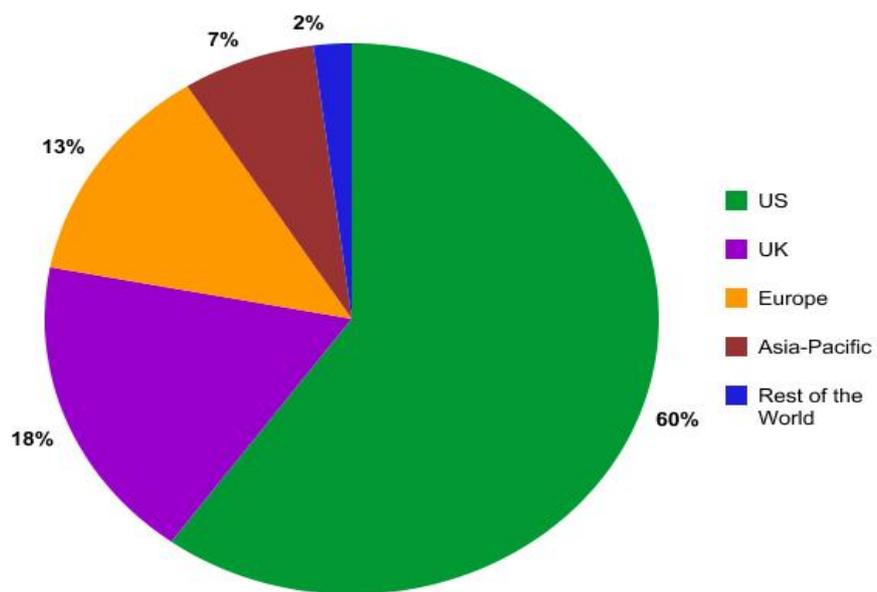
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## Appendix A

**Figure 1: Indian IT Exports as per Geographic Regions**



(Source: Pricewaterhouse Coopers, 2010)

## Appendix B

**Table 1: Top 20 Players in India's IT Services Sector for 2012-13**

No.	Company Name	No.	Company Name
1	Tata Consultancy Services Ltd.	11	Genpact India Pvt. Ltd.
2	Infosys Ltd.	12	MindTree Ltd.
3	Wipro Ltd.	13	Robert BOSCH Engineering and Business Solutions Ltd. (German MNE)
4	HCL Technologies Ltd.	14	KPIT Technologies Ltd.
5	Tech Mahindra Ltd.	15	Polaris Financial Technology Ltd.
6	iGate	16	Hexaware Technologies Ltd.
7	Mphasis Ltd.	17	Infotech Enterprises Ltd.
8	L&T Infotech Ltd.	18	NIIT Technologies Ltd.
9	Syntel Ltd. (US MNE)	19	Zensar Technologies Ltd.
10	CSC India (US MNE)	20	CGI Information Systems & Management Consultants Pvt. Ltd. (Canadian MNE)

(Source: NASSCOM)

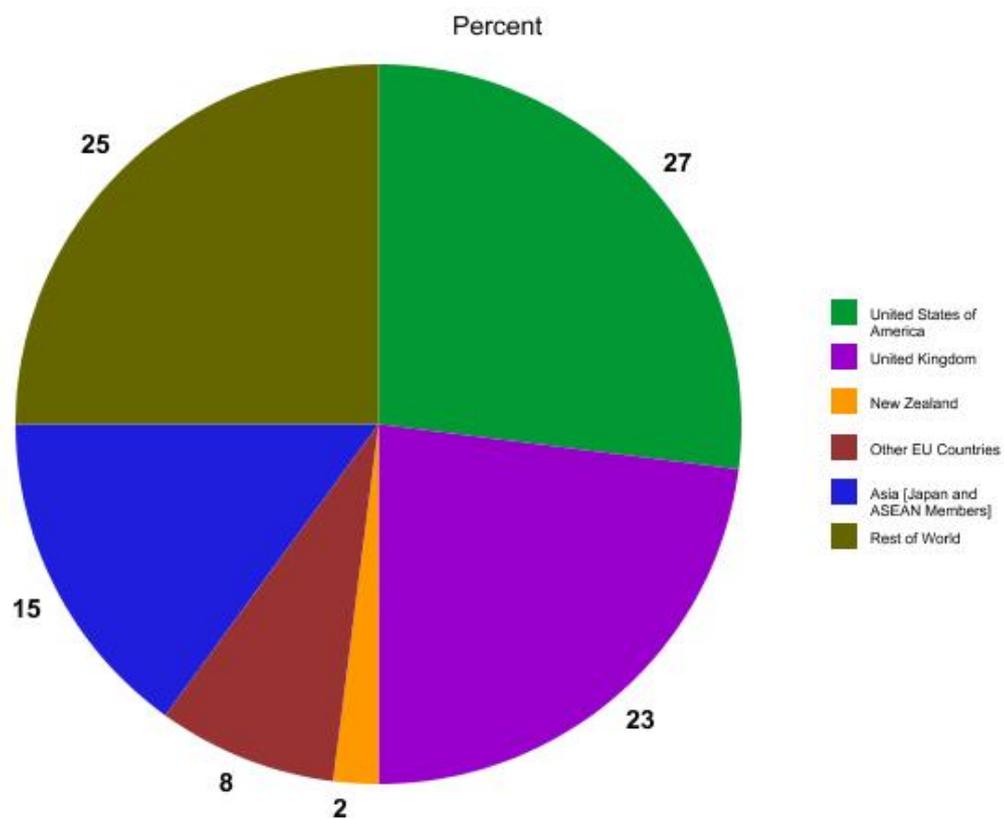
Figure 2: Contribution of Indian IT Industry



(Source: Australian Trade Commission, 2015, p.8)

## Appendix D

Figure 3: Australia's Total Foreign Investment for 2011



(Source: Australian Bureau of Statistics, 2013)