



EVALUESERVE
Expert Knowledge Services

Business Research

Indo-Swedish Business Collaboration

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Evalueserve

Marc Vollenweider

Marc.Vollenweider@Evalueserve.com

Tel: +43 42 45 65183 (O)

+43 67 644 58085 (M)

Fax: +43 42 45 64037

Austria

Prajeet Patel

Prajeet.Patel@Evalueserve.com

Tel: +46 7077 32350 (O)

+46 7077 32350 (M)

Fax: +46 7071 10727

Sweden

India Team

Manoj Madhusudanan

Gurbaksh Singh Gandhi

Arindam Bardhan

Radhika Mathur

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1 Executive Summary

Economic snapshot

At around US\$3.3 trillion, India's gross domestic product (GDP) on the basis of purchasing power parity (PPP) is the fourth largest in the world, next only to the US, China and Japan. Similarly, GDP on the basis of constant prices has grown from US\$531 billion in 1999 to US\$698 billion in 2004, representing a compounded annual growth rate (CAGR) of 5.6 percent. In comparison, the Swedish economy has witnessed a CAGR of 2.5 percent with its GDP (on the basis of constant prices) growing from US\$280 billion in 1999 to US\$317 billion in 2003 – one of the fastest in the European Union (EU).

The Indian economy has a very large pool of skilled labour that is available at economical rates, while the Swedish economy is technology intensive. Hence, there exists a significant potential for companies in both the countries to derive synergies that will enable them to grow at a faster pace. Further, with a rapidly growing middle-class consumer population of approximately 265 million, India represents a huge market for Swedish firms across sectors.

Realising the potential for Indo-Swedish business collaboration

The two economies can realise this synergy by collaborating in the research and development (R&D) space, gaining access to the Indian market, and increasing outsourcing/offshoring of Swedish manufacturing and services to cost-effective and quality-conscious Indian firms.

Innovation made possible by mutual value propositions

India and Sweden can leverage each other's strengths in the R&D space, while complementing the gaps, to possibly create a virtual 'technology corridor'. India has been witnessing a rapid growth in investments in R&D, which are expected to reach US\$7.2 billion in 2007, representing a CAGR of 18 percent over the period 2002-07. An excellent higher education system (380 universities that generate 300,000 engineering graduates, 300,000 science graduates and 6,000 PhDs per annum) and an increasingly growing research infrastructure, has enabled more than 150 MNCs across sectors to conduct R&D operations out of India. Taking a lead from global players, such as Texas Instruments, IBM, Whirlpool, Cisco and Oracle, as well as from some leading Swedish players, such as Ericsson and ABB, other companies in Sweden can also explore the possibility of using India's expertise in R&D by either setting up own captives or by outsourcing their R&D requirements to third-party vendors in India.

Similarly, Indian companies can enhance their R&D capabilities by leveraging the strong Swedish technical know-how (which is reflected by indicators, such as the highest number of per capita patents worldwide at 132 per million, and also in the highest investment in R&D worldwide as a fraction of the total GDP at approximately 4 percent in 2004). Leading Indian companies in biotech and pharmaceuticals have already started exploring potential opportunities by signing agreements with research institutes, universities as well as organisations (for example, the Indian Biotech major, Biocon, has recently entered into a research agreement with Sweden's Karolinska Institute).

Several sectors provide opportunities due to access to a large Indian market

Moreover, Swedish companies can find considerable opportunities in the large and rapidly growing domestic Indian market. Markets across sectors, such as telecom, infrastructure and engineering goods, automobiles, retail, banking and financial services and healthcare present a huge potential for Swedish companies. This access to markets has been enabled by a series of economic reforms, including the liberalisation of foreign investment norms.

Swedish companies can cater to the Indian market through the export route as well as by setting up captives or third-party manufacturing units to cater to local requirements. Ericsson, a Swedish telecom major, for example, is exploring the large and rapidly growing Indian telecom market further by setting up local operations (the company has already captured a substantial share of the Indian telecom market in specific products; it currently supplies 35 out of existing 72 mobile networks in India). Similarly, Volvo (in automobiles), and Electrolux, IKEA, Hennes & Mauritz (in the retail sector) are already active in the Indian market.





Outsourcing/Offshoring presents significant value creation for Swedish firms

By outsourcing manufacturing to third-party vendors in India or offshoring such operations to captive units in India, Swedish companies can enhance their cost competitiveness, while maintaining high quality – seven Indian manufacturers have won the prestigious Deming award for quality in the recent past. Further, the protection of intellectual property of foreign firms is ensured since Indian regulations are compliant with those of the World Trade Organisation (WTO). Realising this, many global companies, especially from the US (such as General Motors and Ford) have successfully outsourced to third-party vendors or offshored to captives in India. Other global majors such as Wal-Mart are sourcing varied requirements (such as textiles) from India.

In services, companies worldwide are exploring India's expertise in Information Technology (IT) and IT-enabled services, Business Process Outsourcing (BPO), and Knowledge Process Outsourcing (KPO). While companies, such as GE, Accenture, i2 Technologies, American Express and IBM have set up captives to tap the services of cost-effective as well as highly competitive Indian professionals, other firms are looking to outsource their services requirements to third-party Indian providers, such as, Infosys, TCS, and Wipro in the IT sector; Wipro BPO and IBM-Daksh in the BPO sector; and Evalueserve in the KPO sector.

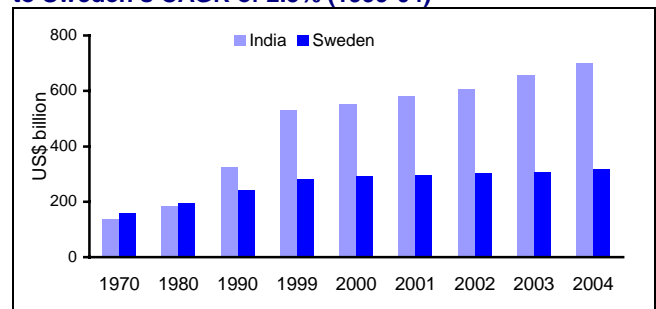
Considering the fact that India continues to enjoy a leadership position in the global market for outsourced/offshored services across sectors (IT, BPO, and KPO), Swedish companies can look forward to further explore possibilities of outsourcing/offshoring their services to India.

2 India – A Continuing Growth Story

	<p>GDP Real GDP growth Per Capita GDP GDP (PPP)¹ Per Capita GDP (PPP) <i>All data pertains to 2004</i></p>	<p>US\$681 billion² 6.4% US\$490 US\$3.319 trillion US\$3,100</p>	<p>Population Population growth Literacy Rate Population 0-14 years Population 15-64 years Middle-class consumers <i>All data pertains to 2005 estimates</i></p>	<p>1.1 billion 1.4% 60% 31.2% 63.9% 265 million</p>
	<p>GDP Real GDP growth Per Capita GDP GDP (PPP) Per Capita GDP (PPP) <i>All data pertains to 2004</i></p>	<p>US\$346 billion² 3.6% US\$27,310 US\$255.4 billion US\$28,400</p>	<p>Population Population growth Literacy Rate Population 0-14 years Population 15-64 years <i>All data pertains to 2005 estimates</i></p>	<p>9 million 0.17% 99% 17.1% 65.5%</p>

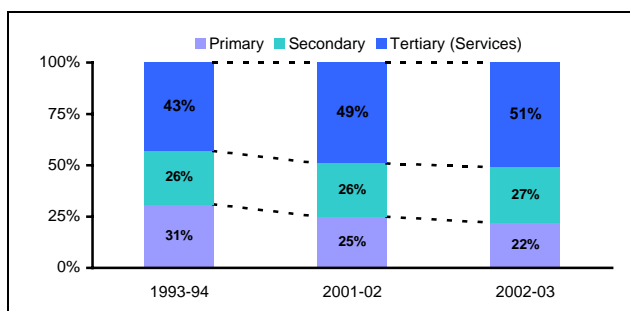
India has the world's fourth largest gross domestic product (GDP), which was approximately US\$3.3 trillion in 2004, on the basis of purchasing power parity, next only to the US, China and Japan. Moreover, India's GDP has grown at a CAGR of 5.6 percent over the five year period from 1999-04, from US\$531 billion to US\$698 billion (on the basis of constant price). In comparison, Sweden's GDP has grown at a CAGR of 2.5 percent, from US\$280 billion in 1999 to US\$317 billion in 2003, which is one of the fastest growth rates in the European Union. Moreover, Sweden's per capita GDP of US\$27,310 is much higher than India's per capita GDP of US\$490.

India's GDP is growing at a CAGR of 5.6%, as compared to Sweden's CAGR of 2.5% (1999-04)



Source: United Nations Statistics Division: At Constant Prices - 1990

Services have emerged as the growth driver for India



Source: Central Statistical Organisation (CSO), India

Traditionally an agrarian economy, India's recent GDP growth, however, has been driven by the services sector, the share of which has grown from 43 percent of GDP in 1993-94 to 51 percent of the GDP in 2002-03. Although the share of the primary sector in the overall GDP has been declining, around two-thirds of India's population is still dependent on agriculture for its livelihood. On the other hand, the Swedish economy is dominated by the services sector. In 2001, services contributed 69 percent to the Swedish GDP, whereas industry and agriculture, contributed 29 percent and 2 percent, respectively.

Further, according to the global investment bank, Goldman Sachs, India's GDP growth, driven by the services sector, is expected to continue at an average annual rate of above 5 percent till 2050.

India's economic growth has been enabled by economic reforms, which have been underway since 1991. Since then, India's main stock market index, the Sensex has grown at a CAGR of 10 percent till 2004. Further, middle-class population of approximately 265 million provides a huge market for sectors of the economy.

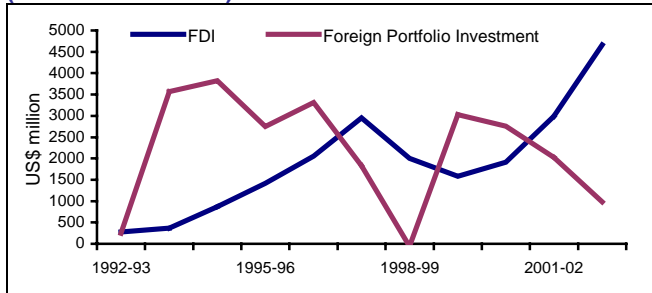
Due to liberalisation of the economy, foreign investment has grown significantly over the past decade. Moreover, favourable factors, such as the availability of a large pool of highly skilled labour, the low cost of operation, and

¹ Purchasing Power Parity

² At Current Prices

the abundant supply of natural resources have also contributed significantly in attracting foreign investment, including investment in industrial research and development.

Steady rise in FDI into India: 10% CAGR over 5 years (1997-98 to 2002-03)

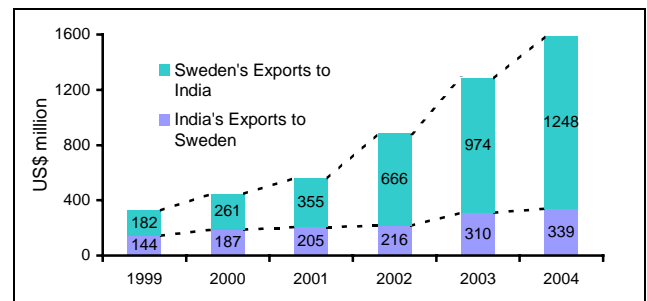


Source: CEIC Database

As a result, foreign direct investment (FDI) inflows have grown from US\$280 million in 1992-93, to US\$4,663 million in 2002-03, depicting a CAGR of approximately 32 percent. Mauritius (primarily as a hub for MNCs) and the US were the leading investing countries in terms of the share of FDI inflows, from January 1991 to July 2004, with shares of approximately 35 percent and 16 percent, respectively.

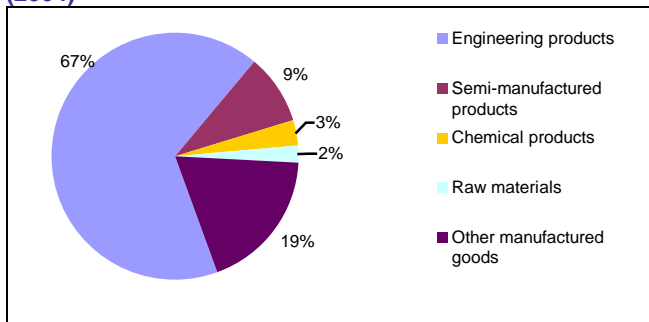
India and Sweden have also witnessed a steady increase in bilateral trade during 1999-04. Sweden's exports to India have increased at a CAGR of 47 percent, from US\$182 million in 1999 to US\$1,248 million in 2004. Meanwhile, India's exports to Sweden have also increased during the same period at a CAGR of 18.7 percent, from US\$144 million in 1999 to US\$339 million in 2004. In 2004, engineering products dominated the Swedish exports to India, accounting for a 67 percent share in total exports, whereas the share of Indian exports varied considerably.

Indo-Swedish trade has grown by 37.2% (CAGR) (1999-04)



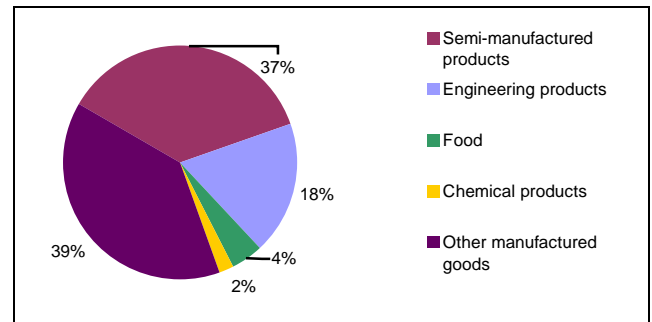
Source: Ministry of External Affairs, India

Engineering goods dominate Swedish exports to India (2004)



Source: Swedish Trade Council

India has fragmented basket of exports to Sweden (2004)



Source: Swedish Trade Council

Investment into India has been further enabled by a structured and secure regulatory environment. In order to strengthen intellectual property rights protection in India, the government has made Indian laws compliant with provisions of the WTO. In addition, most sectors have been progressively opened up for foreign investment.

Economic liberalisation and globalisation have led to the emergence of a number of knowledge and technology intensive sectors in India. These include IT and KPO, biotechnology, auto-ancillaries, pharmaceuticals, and retail, among others. However, with a population of more than 1 billion, which is growing at a rate of 1.44 percent annually, combined with its rapidly growing GDP, India's key investment needs are mostly focused on the development of infrastructure. India lags behind not only developed countries, but also many developing countries in the state of infrastructure, primarily in the areas of power, telecommunications, roads, aviation, railways, ports, and healthcare services.

From an economic activity viewpoint, India can be broadly classified into four regional zones. These regional zones have become hubs for different types of industries, as depicted in the following figure. According to the Confederation of Indian Industry (CII), the southern and western regions account for over 50 percent of the country's hi-tech production and research.



Northern India

- It is the main economic hub and comprises the National Capital Region (NCR) of Delhi, along with three satellite towns.
- It has good infrastructure support and an affluent consumer base; the satellite towns of Gurgaon and Noida have multiple export zones and technology parks.
- These towns attract investments especially, from the BPO, KPO, software services, automotive, retail and real-estate sectors.

Eastern India

- It has large quantities of mineral resources. However, this region lacks in terms of infrastructure.
- Kolkata, the key economic hub, has a huge middle-class population, which is highly educated.

Western India

- The states of Gujarat and Maharashtra are highly industrialised compared to the rest of the country.
- The two states have a well developed infrastructure, including roads, ports, and power, making them one of the primary destinations for foreign investment.
- Mumbai (capital city of Maharashtra) is the financial hub of the country. It is also a major port.
- Mumbai and the nearby city of Pune have attracted investment in most industry sectors.

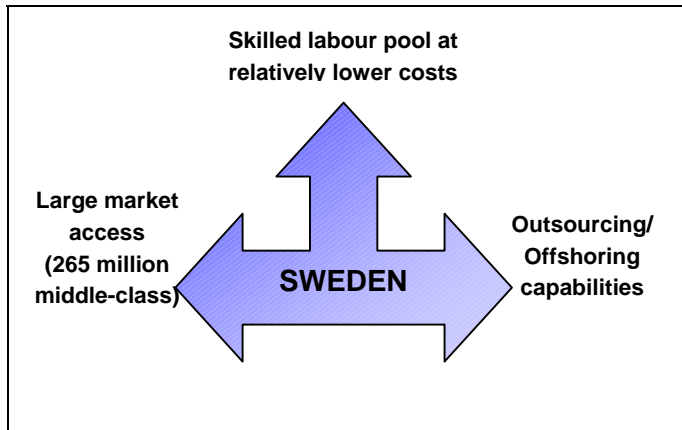
Southern India

- The states of Karnataka and Andhra Pradesh, in general, have well developed infrastructure for telecom and information technology.
- Hyderabad (capital city of Andhra Pradesh) has grown rapidly to become a hub for the biotechnology and the IT sector.
- According to the US Commercial Service, Hyderabad is the fourth fastest growing city in the world. Bangalore (capital city of Karnataka) has emerged as the leading centre for IT and technical research and development activities.

3 Indo-Swedish Economic Ties – Harnessing Synergies

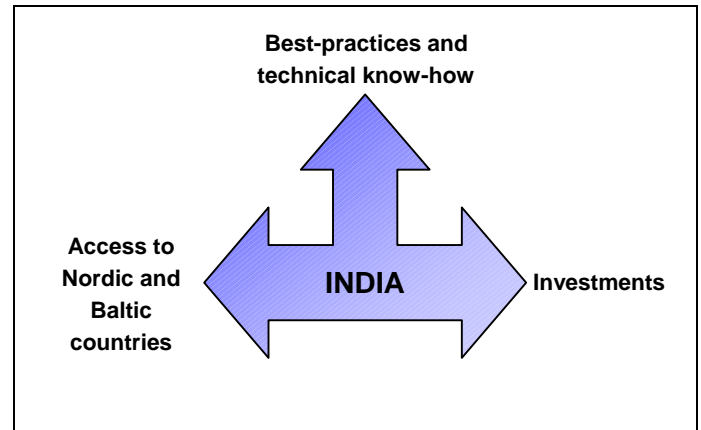
The association between Sweden and India has significant potential to be mutually beneficial, as depicted through the Figure 1 and 2. A technology intensive country like Sweden and a skilled-labour intensive country like India can form ideal partners.

Figure 1: India's Attractiveness to Sweden



Source: Evalueserve Analysis

Figure 2: Sweden's Attractiveness to India



Source: Evalueserve Analysis

As mentioned earlier, these mutual value-propositions can be realised through Indo-Swedish R&D collaborations, availing market opportunities for Swedish companies in India in several high-growth sectors, and the outsourcing/offshoring of manufacturing and services by Swedish firms to cost-effective and quality conscious Indian firms.

3.1 Innovation made possible by mutual value propositions

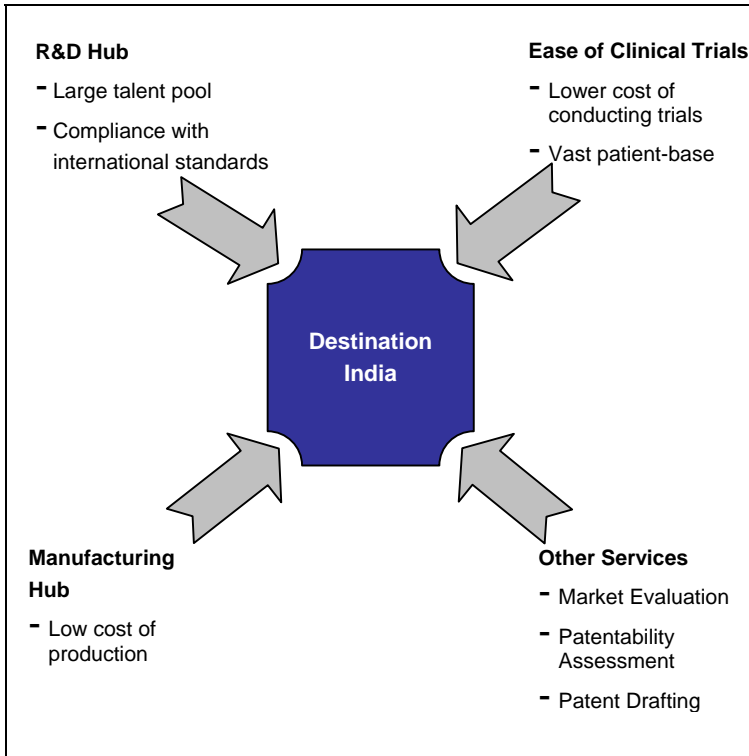
Sweden has the world's highest R&D investment as a percentage of GDP (approximately 4 percent in 2004). Given such a strong focus on R&D, Sweden can further enhance its technical competence by taking advantage of the robust research infrastructure provided by India. In fact, Sweden and India can aspire to create a virtual 'technology corridor' by taking advantage of each other's key strengths on the technology front.

The key enablers of R&D investment in India include the technical talent of its labour pool, the physical infrastructure for research, as well as the support from the government:

- a. **Academia** – India has 380 universities, which produce about 300,000 engineering graduates, 300,000 science graduates and around 6,000 PhDs every year.
- b. **Research Laboratories** – India has more than 2,900 research centres and 400 state-run laboratories. The government run Council of Scientific and Industrial Research (CSIR) is the nodal agency for coordinating state-sponsored research activities in India.
- c. **Government Support** – The Indian government has decided to offer a 150 percent tax sop to automobile R&D centres. This reflects the government's intention to encourage R&D activities in India.

As a representative example, the following figure illustrates the key attributes that would attract a pharmaceutical firm to India.

Figure 3: What attracts pharma firms to India?



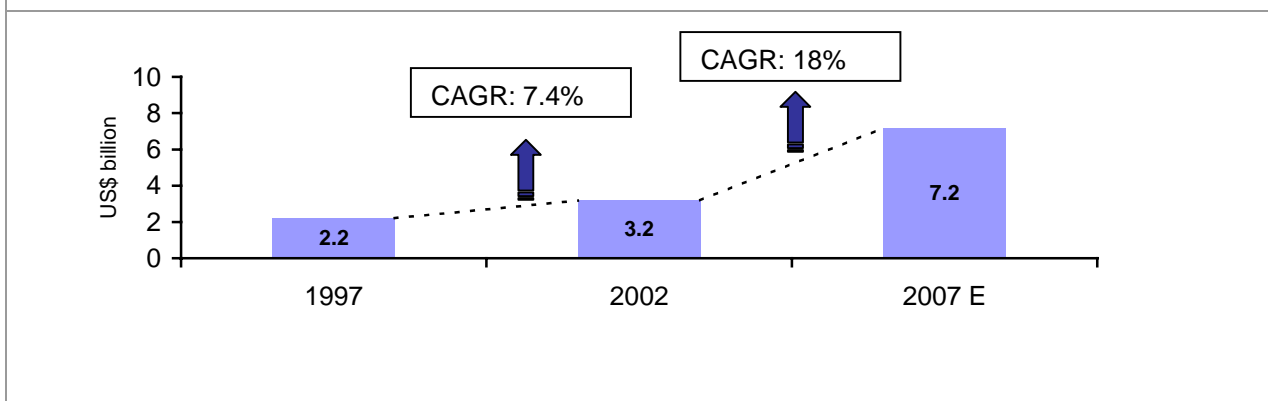
Source: *Evaluesserve Analysis*

- Apart from leveraging a vast talent pool for their R&D needs, foreign pharmaceutical companies can also follow it up by utilising both the cost advantages as well as the ease in conducting clinical trials.
- Growing compliance with international standards such as Good Laboratory Practices (GLP), current Good Manufacturing Practices (cGMP) and Good Clinical Practices (GCP) have helped in building faith amongst international pharma companies in India.
- As the cost of conducting clinical trials in India is less than 10 percent of the costs incurred in most other countries, MNCs have shown great interest in setting up their R&D hubs in India.
- Further, India's adherence to the TRIPS and other WTO norms provides further stimulus to foreign companies to start operations here.
- As an example, the Swedish pharma major, AstraZeneca has invested US\$10 million in tuberculosis research work being done at its Bangalore research facility.
- A number of other foreign players such as GlaxoSmithKline (UK), Aventis (France), Bayer (Germany) and Pfizer Inc. (US) are also sourcing R&D work from India.

Realising India's value proposition, foreign investment in R&D activities in India has increased considerably in recent times. MNCs have invested over US\$1 billion in R&D between 1998-03. Moreover, over 150 MNCs are currently conducting R&D operations in India.

As a result, the total R&D investment in India has increased from US\$2.2 billion in 1997 to US\$3.2 billion in 2002, which is expected to increase to US\$ 7.2 billion by the end of 2007. Figure 3 depicts the growth of R&D investment in India during 1997-07.

Figure 4: R&D Investment in India (1997-2007)



Source: *Ministry of External Affairs, India*

Some examples of global majors that have invested in R&D activities in India, either directly or through outsourcing partnerships, include the following:

- Ericsson, the Swedish telecom major, has outsourced some of its R&D activities to Wipro Technologies and Tata Consultancy Services. In addition, it plans to set up an R&D centre in Chennai, India.

- ABB, the Swiss-Swedish utilities major, has opened its first R&D centre outside the US and Europe in Bangalore, India.
- GE, the US-based multinational technology and services giant, has a technology centre in Bangalore, the largest outside the US. The John F. Welch Technology Centre has an investment of US\$60 million. It employs 1,600 researchers and plans to raise the number of staff to 2,400.
- DaimlerChrysler, the German automobile and truck manufacturing major, has a research centre in Bangalore. It is involved in fundamental and applied research in avionics, simulation and software development.
- Boeing, the leading American aircraft and aerospace manufacturer, has partnered with HCL Technologies to develop all the software required for its upcoming 7E7 Dreamliner jet.

Other global majors that have made R&D investments across sectors in India include Hewlett Packard, Delphi, Eli Lilly, Texas Instruments, IBM, Whirlpool and Oracle, etc. Further, in October 2005, Cisco Systems announced a plan to invest US\$1.1 billion in India, of which, US\$750 million is earmarked for R&D activities.

While Sweden can leverage India's R&D capabilities, India too can benefit from Swedish technical expertise – India can build upon Swedish innovativeness (Sweden has the highest patents per person in the world - 132 per million). In fact, such collaborations have already begun. Some examples include the following:

- Biocon, the Indian bio-technology firm, and the Karolinska Institute in Sweden have signed an agreement to collaborate in research as well as research education initiatives.
- Dr. Reddy's Laboratories, a leading Indian pharmaceutical firm, has also signed research agreements with drug manufacturers and universities in Sweden.

3.2 The Indian market – Opportunities abound in several sectors

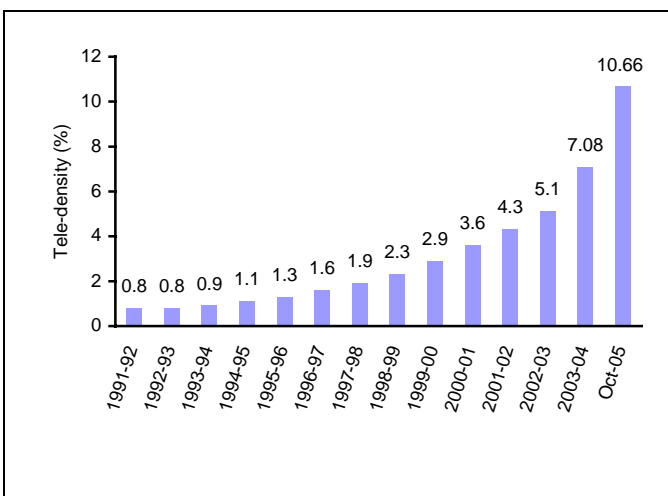
With a middle-class consumer population of around 265 million and ever increasing needs in infrastructure, India offers a large market for Swedish companies across various industries, especially telecommunications, infrastructure and engineering goods, automobile and auto ancillaries, retail, banking, healthcare, insurance and pharmaceuticals.

3.2.1 Telecom – Rapid growth offers significant opportunities

Rapidly growing market for mobile telephony

- The Indian telecom sector has witnessed rapid growth in the last five years, making it the second largest telephone network (including mobile) among emerging economies, next only to China.

Figure 5: Tele-density³ in India has grown exponentially (FY 1991-92 - Oct 2005)



Source: Department of Telecom, India

- The rapid growth in India's tele-density has been primarily due to the growth in mobile telephony, led by the private sector.
- Mobile subscribers grew at a rate of 68 percent in 2004, from 28.5 million subscribers at the end of 2003 to 48 million at the end of 2004, and stood at 67.9 million at the end of October 2005.
- However, India's tele-density is still only 10.66 (at the end of October 2005)
- The Indian government expects 250 million telephones by the end of 2007, up from 116 million at the end of October 2005. This will require an investment of approximately US\$20 billion.
- Combined with the fact that an average of approximately 2.2 million subscribers is currently added every month, India presents a big opportunity for global telecom players.
- With increasing mobile penetration rate, India is becoming a lucrative market for global players, such as Sony-Ericsson, Nokia, Motorola, etc.

³ Tele-density is defined as the total number of telephone connections (including fixed-line and mobile) available per 100 persons.

Foreign investment further facilitated by easing of FDI norms

- Further, in February 2005, the Indian government raised the foreign investment cap in the country's telecom sector to 74 percent from 49 percent. This has opened up significant opportunities for investing in India's telecom industry.
- Swedish companies can benefit by increasing exports to India and also by setting up operations in India. Ericsson has been one of the largest Swedish companies to set up operations in India and plans to invest up to US\$100 million per annum going ahead. It supplies 35 out of 72 existing mobile system networks in India, establishing it as the leading mobile systems company in the country.
- Finland's Nokia is setting up a manufacturing facility for mobile devices in Chennai, India, with an investment of US\$100-US\$150 million. Nokia's decision to set up a manufacturing plant was influenced by factors, such as proximity to the growing Indian and Asian markets and low manpower costs.
- Moreover, several global service providers, such as Vodafone, SingTel and Hutchison are actively capturing market opportunities through joint ventures with Indian players.

3.2.2 Infrastructure and engineering goods and services – India's key investments needs

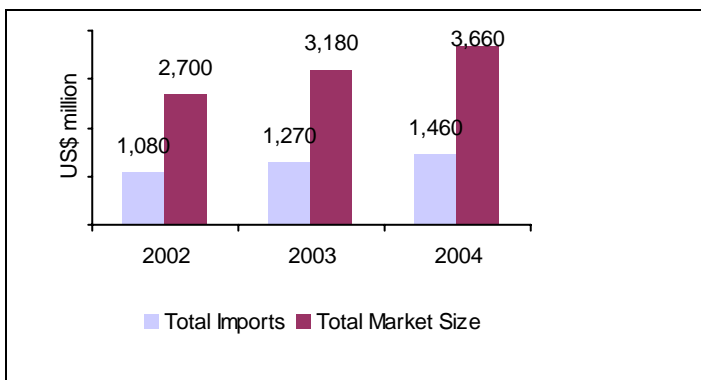
With rapid growth in population and GDP, there is increasing pressure on the existing infrastructure. As a result, India's key investment needs are mostly concentrated in the areas of infrastructure development. Power, roads and airports offer significant opportunities for investment.

3.2.2.1 Power: The Indian power sector requires significant investments

- India's energy requirement is expected to increase from 507 billion units (BU) in 2002 to 975 BU in 2012.
- In order to meet existing and future demand, an investment of US\$200 billion is required in power generation, transmission and distribution during 2002-12.
- Investments are also required for the restructuring and strengthening of existing state electricity boards, most of which are currently making losses.
- Building on its well established position in the Indian market, the Swiss-Swedish utilities major, ABB, is actively investing in these opportunities offered by the power sector. In 2004, the company laid out an investment plan of approximately US\$18 million for capacity enhancement, plant upgradation and modernisation as well as range expansion.
- ABB also opened a new technology centre in Nashik in 2004 for medium-voltage technology to cater to power distribution.

3.2.2.2 Environmental pollution control technologies – With rapid economic growth and stringent environmental norms, such technologies have a bright future in India

Figure 6: Pollution Control Equipment - total market size and total imports (2002-04)



Source: US Commercial Service

- The total market for pollution control equipment has witnessed an annual growth rate of more than 10 percent, growing from US\$2.7 billion to approximately US\$3.7 billion, from 2002-04.
- Imports, primarily from the US, have dominated the Indian pollution control equipment market, comprising approximately 40 percent. The need for the Indian manufacturing facilities of MNCs to follow international environmental norms has been the driver for these imports.
- Further, the Indian government continues to implement stringent statutory norms for energy efficiency, vehicular pollution (for example, Euro III norms will become mandatory across India by 2010) bio-medical waste disposal and water recycling. This will continue to drive the demand for pollution control technologies.

3.2.2.3 Civil aviation: Driven by liberalisation and stiff competition, the Indian civil aviation sector is experiencing explosive growth

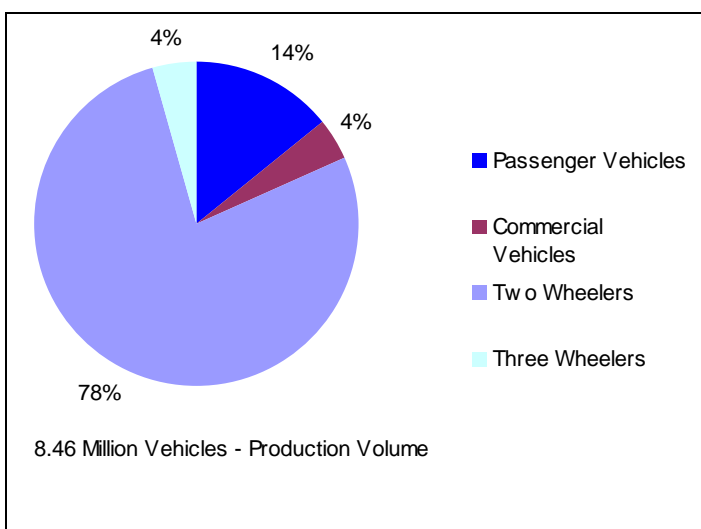
- Following an 8.5 percent growth in domestic air passenger traffic in 2002-03, a growth rate of more than 12 percent was achieved in 2003-04, taking passenger volume to 15.7 million from 14 million in 2002-03.
- The primary drivers behind this growth have been increased liberalisation measures and stiff competition between existing (mostly public) and new airlines (mostly private), leading to regular decreases in air fares and innovative customer offerings.
- By increasing the FDI limit to 49 percent and introducing an ‘Open Skies’ policy, under which restrictions have been lifted on the number of flights and destinations that carriers can operate to the US and UK, the Indian government has displayed its inclination to support growth.
- As a result of the continuing rapid growth, the key areas where investment needs exist are the restructuring and modernisation of the main airports, the construction of new greenfield international airports, the construction of terminal facilities, the management of ground handling services, the manufacture of aircrafts, and the provision of logistics and support services.
- In anticipation of further rapid growth in passenger volumes, various airlines have rolled out ambitious procurement plans, placing orders for 160 aircraft amounting to US\$12 billion at the 2005 Paris Air Show.

3.2.2.4 Roads: Construction of new highways and improvements to existing ones are the need of the hour

- Although India has the world's third largest road network totalling approximately 3 million kilometres, half of the roads are not surfaced.
- Further, national highways that comprise only around 1.4 percent of the total road length carry nearly 40 percent of the country's road traffic.
- The Indian government has attached high priority to the development of national highways in India, estimating an investment need of approximately US\$34.3 billion to build and improve existing highways.
- The ‘Golden Quadrilateral’ highway project connecting all key metros in India, which is currently underway, is one of the largest infrastructure projects in the world.

3.2.3 Automobiles and ancillaries – Large automobile market and potential in ancillaries

Figure 7: The Indian Auto Industry is Dominated by Two Wheelers (2004-05)



Source: Society of Indian Automobile Manufacturers

Increasing disposable income results in explosive growth of automobiles

- The production of automobiles in India has grown from 4.2 million vehicles (including all types) in 1998-99 to 8.46 million vehicles in 2004-05 – registering a CAGR of 12.4 percent.
- At a global level, India has the largest three wheeler market, the 2nd largest two wheeler market, and the 5th largest commercial vehicle market. It also has the 4th largest passenger vehicle market in Asia.
- Further, two-wheelers continue to dominate the automobile sector, in terms of the number of units produced. In 2004-05, more than five two-wheelers were produced against every passenger car produced.
- The key factors responsible for the rapid growth in the automobile market include increasing disposable income, the availability of consumer financing options at relatively low rates of interest, the availability of existing international models along with the introduction of new local models, and discounted price offerings by both dealers and manufacturers.

Most global majors present in the Indian market

- Some of the global majors that manufacture automobiles in India either independently or through joint ventures include General Motors, Ford, Fiat, Daimler Chrysler, Fiat, Skoda, Toyota, Suzuki, Honda, Yamaha, Mazda, and Hyundai.
- For the Swedish manufacturer Volvo, India constitutes one of the top ten markets for its buses. There are currently around 750 Volvo inter-city buses on Indian and Bangladeshi roads.

Auto-ancillaries industry growing rapidly due to cost-effective manufacturing

- Considering the auto-ancillaries and components industry, a surge in exports has enabled this industry to expand considerably. Exports from this industry rose by approximately 37 percent in 2004-05, to clock US\$1.4 billion. This comprised 16 percent of the total output of US\$8.7 billion. This has been made possible by cost-effective manufacturing while maintaining quality standards.
- SKF India, which is a market leader in bearings, has gained immensely from the growth in the auto-ancillaries sector. As another example, Autoliv IFB India, a joint venture between Swedish auto-ancillaries manufacturer Autoliv and the Indian firm IFB Automotive Seating and Systems, has a facility in Bangalore for supplying to automobile firms in India.
- From India's perspective, the auto-ancillaries and components industry stands to benefit from access to Nordic markets through Sweden. The Scandinavian Automotive Suppliers Association (SASA) has recently signed an agreement with the Automotive Components Manufacturers Association (ACMA) of India for sourcing and stocking auto-components from India, for supplying to companies in Sweden, Norway and Finland.

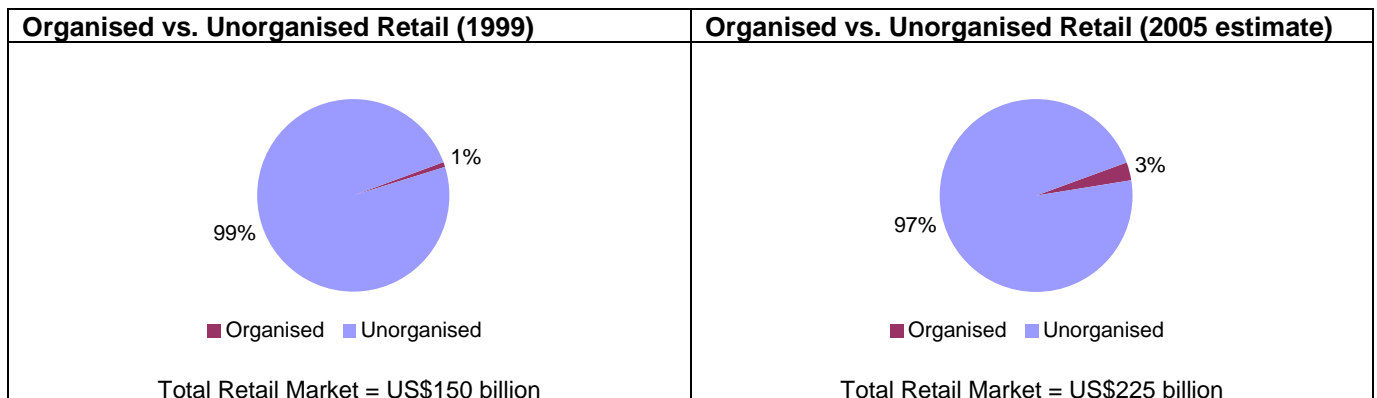
Multiple opportunities for Swedish auto-ancillary companies

- Swedish companies can find opportunities in the Indian market for auto-components and ancillaries, in areas such as engine development, alternative fuel technologies, vehicle styling as well as the development of new infrastructure for automotive testing.

3.2.4 Retail – India among the most attractive retail destinations

- According to a study by A.T. Kearney Inc., a global management consultancy firm, India has been identified as the second most attractive retail destination from among 30 emerging markets, second only to Russia.

Figure 8: Share of Organised Retail is Growing in India



Source: Central Statistical Institute, India; McKinsey

- With a current market size estimated at approximately US\$225 billion, the Indian retail industry has the highest number of per capita outlets in the world (5.5 outlets per 1000 persons). The retail sector contributes 14 percent to the country's GDP. Retail sales in India increased at a CAGR of 7 percent during 1999-2002 and are predicted to rise at a rate of 8.3 percent annually during 2003-08.

Organised retail poised to grow rapidly, driven by middle-class consumers

- Though the overall retail market is large, the organised retail sector currently accounts for only 3 percent share of the total market. With a rapidly growing middle-class consumer population of around 265 million, the organised retail industry is expected to grow at 30 percent annually till 2008.
- This growth will also be driven by the growing consciousness of the consumer towards product quality and services, and the growth of large retail outlets such as malls. As a result, the organised sector is expected to capture 15-20 percent of the total retail market by 2010.

- Further, the Indian government is expected to allow FDI in the retail sector soon, which will provide further impetus to the sector.
- Consequently, international retailers, such as Hugo Boss and Tommy Hilfiger are stepping up their operations in India and introducing their latest collections.

India has emerged as a major sourcing hub for various products, such as textiles

- Retailers, such as Wal-Mart, GAP, Tesco, JC Penney, Karstadt-Quelle, etc., are already sourcing products from India for their outlets globally. Some of these companies have shifted from third-party buying offices to establishing their own sourcing and buying offices, further emphasising the importance of India as an attractive sourcing hub for global players.

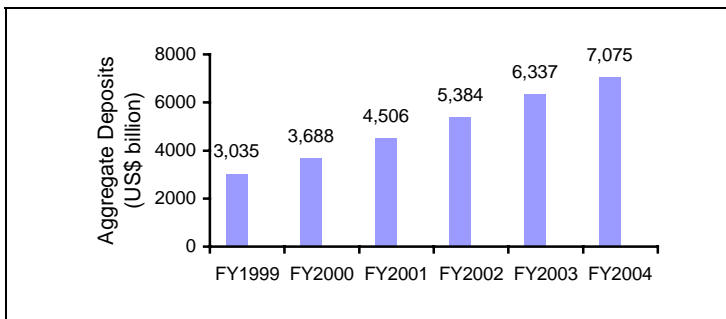
Already active in Indian retail, Swedish firms can expand further

- Swedish companies, such as Electrolux, IKEA, Hennes & Mauritz are already active in the Indian retail sector. Electrolux not only sells consumer appliances to Indians, but also plans to source from India. IKEA and Hennes & Mauritz are sourcing textiles, apparel and home furnishings from India to cater to their retail stores across the world.
- Swedish firms can further expand in relatively unexplored sub-sectors in India, such as home improvement, wholesale trading and rural retailing.
- In addition, taking a leaf from the success of Swedish retailer Indiska and the growing worldwide popularity of Indian concepts, such as Yoga⁴, other retailers can also market products based on Indian concepts in Sweden and other Nordic countries.

3.2.5 Banking – Witnessing growth due to booming consumer banking activities

- Public sector banks currently dominate the Indian banking industry (comprising 288 commercial banks) since they account for more than 70 percent of deposits and loans. However, the emergence of new private banks and the entry of more foreign banks have made the banking environment more competitive.

Figure 9: Rapidly growing bank deposits (CAGR 18.4%)⁵



Source: Reserve Bank of India

Continuing reforms in the banking sector expected to increase foreign participation

- Further, the Indian government has now allowed FDI up to 74 percent of equity in private banks. This provides an even greater opportunity to foreign banks looking to invest in India and garner an increasing share of the aggregate deposits, which have increased at a CAGR of 18.4 percent, from US\$3,034.4 million in FY1999 to US\$7,074.7 million in FY2004.

- Currently, a number of foreign banks are present in the Indian market, including ABN-AMRO, HSBC, Standard Chartered, Citibank, etc.
- According to the Indian Banks’ Association, by 2010, international players will have a greater presence in the Indian financial system. Besides, with the government expected to reduce its stake in public sector banks to less than 33 percent, this will present an even better opportunity for international banks to increase their standing in the Indian market by buying stake in some of the public sector banks.
- Further, the Reserve Bank of India has outlined that the restrictions imposed on the fully-owned subsidiaries of foreign banks are likely to be removed, starting April 2009. As a result, a number of foreign banks are looking at entering the Indian market, including the Royal Bank of Scotland, UBS, Merrill Lynch, Goldman Sachs, etc. Goldman Sachs currently has a stake in the Indian bank, Kotak Mahindra.

Consumer banking, including usage of debit and credit cards, will increase fee-based income

- The increasing competition in the banking sector, as a result of liberalisation, is expected to reduce spreads to approximately 1-1.5 percent, as is the case in developed countries. This will prompt banks to look for more fee-based income.

⁴ Yoga – Spiritual practices that originated in ancient India

⁵ The CAGR is over a period from FY1999 to FY2004. FY refers to fiscal year ending 31st March.

- Fee-based income is likely to be boosted by the increasing usage of debit and credit cards and other consumer banking related activities. Such activities include automobile financing, housing loans, etc.
- According to a study conducted by the National Council of Applied Economic Research (NCAER) on behalf of Visa International, the number of payment cards in India has grown at a CAGR of 55 percent, from only 3 million in 1998 to 44 million in 2004.
- In spite of the growth, total spending using payment cards is still less than 1 percent of the personal consumption expenditure. However, the study predicts a three-fold growth in the Indian consumers' spending using credit and debit cards, from approximately US\$4.5 billion in 2004 to approximately US\$14 billion by 2009. This presents a great opportunity in this sector.

Swedish banks can tap into the consumer banking sector

- Swedish banks can explore opportunities in the Indian consumer banking sector by entering the market through either a wholly-owned subsidiary or by buying a stake in any of the existing private banks.

3.2.6 Healthcare – Key opportunities in medical tourism and medical infrastructure

- The healthcare expenditure in India, which stood at approximately 4 percent of GDP, amounted to approximately US\$23 billion in 2004-05.
- Individuals contribute approximately 50 percent to the total health expenditure, compared to less than 30 percent by the state.

Rising local income drives domestic demand while low-cost quality treatment drives medical tourism

- Driven by rising income levels and high quality services at affordable prices along with changing demographics and disease profiles, it is estimated that spending on healthcare will increase at 13 percent per annum for the next four years. To meet this increasing demand for healthcare, the quality of the healthcare infrastructure in the country needs to be improved.

Investments needed for development of hospitals and purchase of equipment

- There is a need for investment in many healthcare infrastructure projects, such as the construction of hospitals, medical colleges and other facilities. The pressure has further increased due to a rise in medical tourism. In 2003, approximately 100,000 medical tourists were attracted by private hospitals in India, spending about US\$333 million. This is due to the low cost and high quality of treatment available in India. For example, an Open Heart Surgery in the US costs approximately US\$50,000, compared to only about US\$4,400 in India.
- According to a report by the World Health Organization (WHO), India needs to add 80,000 hospital beds each year to meet the demands of its growing population. It is estimated that US\$21 billion to US\$30 billion of investment is required till 2012 towards improving the overall quality of healthcare infrastructure in India.

100 percent FDI allowed to spur foreign investment

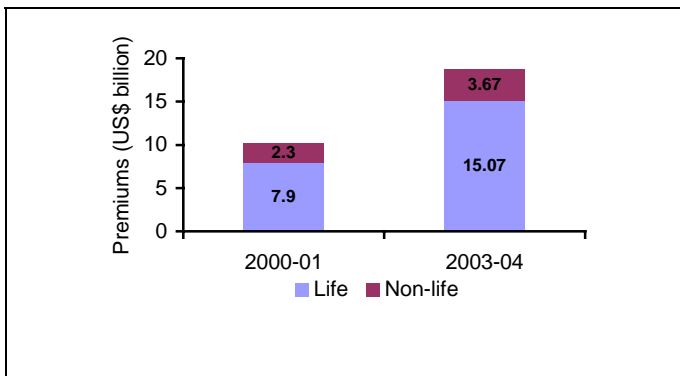
- The Indian government has accorded a high priority to the healthcare sector and permits 100 percent FDI in hospitals and other healthcare activities. It has also slashed customs duty on imports of medical equipment and provides incentives for setting up new hospitals.
- As a result, Swedish companies can take advantage of the growing medical equipment market in India. In fact, this market is already dominated by imports from MNCs, such as Medtronic, Boston Scientific, Siemens, Wipro-GE, Phillips, Toshiba-STM, Pickers, Larsen & Toubro and Torrent.

3.2.7 Insurance – Boosted by rising incomes and awareness of insurance products

Insurance sector still in its infancy

- The insurance sector in India is still in a nascent stage. In 2004, life insurance covered less than 3 percent of the total population. While Indians, on an average, save about 25 percent of their total income, they put less than 5 percent of their savings into insurance (including life and general insurance).

Figure 10: Insurance premiums have almost doubled between 2000-01 to 2003-04



Source: Insurance Regulatory and Development Authority (IRDA), India

- However, the insurance sector has witnessed significant growth after it was opened up for private participation in 2000-01. As a result, the insurance sector saw 16 new entrants in the industry in 2000-01.
- Total premiums collected in both life and non-life segments, increased by 83 percent from US\$ 10.23 billion in 2000-01 to US\$18.74 billion⁶ in 2003-04.
- Growth in the life segment has been primarily driven by increasing awareness of insurance products and rising income levels.
- Motor insurance, which dominates the non-life segment with a share of approximately 40 percent, has been the key growth driver in the non-life segment.

FDI cap increased to 49 percent

- The Indian government has now increased the FDI limit in the insurance sector from 26 percent to 49 percent, presenting a significant opportunity for global insurance companies to invest in India.
- At present, global companies, such as Allianz, Aviva, Max New York Life, Metlife, Prudential, Lombard and AIG are present in the Indian market through joint ventures. As an example, Metlife entered India in 2001 as a joint venture between MetLife International Holdings Inc., The Jammu and Kashmir Bank, M. Pallonji and Co. Pvt. Ltd. and other private investors.

Significant scope for Swedish insurers

- Swedish insurance firms can grab growth opportunities in life insurance and motor insurance through joint ventures with Indian firms.

3.2.8 Pharmaceuticals – Growing market for drugs, research and manufacturing

Growing market for drugs

- The Indian pharmaceutical industry is estimated to be worth US\$7 billion in 2004-05 and is expected to grow five times, to US\$35 billion in the next ten years, according to deliberations of the Indian Pharma Expo 2005.
- This growth will be primarily driven by growing exports (36 percent of total production in 2004-05), the growing affluence of the Indian population, the proposed increase in government spending on healthcare, and an increase in the number of drugs coming off patent (drugs coming off patent in 2003-08 are valued at US\$65 billion).
- Currently, the industry is highly fragmented, primarily due to the lack of product patents for the past three decades. India has close to 300 large and medium size pharma companies and another 10,000 small firms.
- This scenario is likely to change, since India has started implementing a product patent regime from the 1st of January 2005. This is likely to increase the dominance of MNCs and large Indian companies in the market, at the expense of many smaller players.
- Hence, it is an opportune time for Swedish pharma companies to enter the lucrative Indian pharmaceutical market

Substantial capabilities, especially in generics

- Over the years, Indian companies have developed strong expertise in pharmaceutical manufacturing and chemistry, which has enabled them to strengthen their position in the global market. The main focus is on the generics market (drugs that do not enjoy patent protection) and bulk drugs (raw materials).
- India is expected to garner a major share of the global generics market by leveraging its R&D facilities and inherent strengths in technology and human expertise.

Cost-effective manufacturing base

- It is almost 40 percent cheaper to set up a plant in India compared to developed countries. In addition, the cost of bulk drug production is 60-70 percent less. This offers attractive opportunities for Swedish drug manufacturers.

⁶ March 31 inter-bank exchange rates have been used for currency conversion

3.2.9 Other key areas offering opportunities for mutual benefit

3.2.9.1 Media and Entertainment: Opportunities due to rapid growth of Indian media industry

- The Indian entertainment industry has grown at a fast pace in the last few years and was estimated to be worth US\$4.2 billion in 2004.
- Increasing disposable incomes and evolving consumer preferences have resulted in an increased demand for entertainment products such as films, music albums and videos. Consequently, a large number of channels have started airing on Indian television. Many of these channels are ventures of global media houses, such as STAR, Sony and WorldTel.
- Further, combined with the increasing popularity of Bollywood films worldwide, the Indian entertainment industry is expected to grow to over US\$11 billion by 2007.

3.2.9.2 Higher education: Large number of Indian students go abroad for graduate studies, especially in technology

- The number of Indian students going abroad for further graduate studies has been increasing steadily, with the maximum number going to the US, the UK and Australia. Approximately 67,000 Indians applied for a student visa in 2002.
- Given the trend that most students pursue a technical degree and are of sound academic standing, this represents a great opportunity for Swedish universities to attract a globally competitive talent pool.
- Several initiatives have already been taken to promote Indo-Swedish exchange at the academic level:
 - Swedish universities such as The Royal Institute of Technology (Kungliga Tekniska Högskolan) and Lund University have a tie-up with Indian engineering institutes such as the Indian Institutes of Technology (IITs) and the Indian Institute of Science (IISc). These universities run exchange programmes on a regular basis.
 - Swedish South Asia Studies Network (SASNET) facilitates research on South Asia in Swedish Universities.

3.2.9.3 Food processing technology

- The total Indian market for food processing equipment is currently estimated to be more than US\$2 billion and is expected to grow at an annual rate of 15 to 18 percent over the next two years. With India already among the largest producers of food worldwide (first in the production of cereals and milk - 91 million tons, and second in the production of fruits and vegetables - 150 million tons), the growth is being driven by rising domestic demand for food and beverage products.
- Currently, only 2 percent of the production of fruits and vegetables, 2 percent of meat and poultry and 4 percent of fish is processed. Further, the unorganised sector along with small players processes more than 70 percent of this, in volume terms.
- As a result, more than 25 percent of India's food production is lost due to inadequate food processing technology and storage facilities, prompting the government to provide various sops for promoting the food-processing sector.
- Swedish companies can capitalise on the high-growth areas in the processing of fruits and vegetables, meat, poultry, dairy and seafood. Additionally, there is growing potential in the ready-to-eat/serve snacks and convenience foods segment, along with the cold-chain sector in India.
- Further, with imports currently accounting for less than 5 percent of the total Indian food-processing equipment market and Sweden figuring in the top 5 suppliers, there is significant opportunity for high-quality Swedish equipment for the Indian market.

3.3 Outsourcing/Offshoring – Significant value creation for Swedish firms

Outsourcing to a third-party Indian company or offshoring operations to a captive operation in India offers several advantages to foreign firms. The key parameters that lead to value creation are the significantly lower operational cost, availability of skilled workforce, peak load absorption (more in the case of outsourcing to third-party Indian vendors), acceleration of process cycles and access to global markets.

In addition, a favourable regulatory environment and macro economic stability have eased the decision-making process for foreign firms. As a result, several MNCs have outsourced/offshored work to India, including Pfizer, Novartis, Intel, Motorola, Cisco Systems, IBM, General Electric, Bank of America and HSBC, etc.

Outsourcing/offshoring opportunities can be utilised in both manufacturing as well as services. The following sections outline these two possibilities.

3.3.1 Outsourcing/Offshoring of manufacturing – Cost-effective alternative along with quality

Along with cost advantages, Indian manufacturers also offer a strong quality focus. Over the past two years, seven Indian companies have won the prestigious Deming Award for quality. There are several examples of outsourcing/offshoring of manufacturing activities by global firms in sectors, such as:

- **Automobiles and Auto-components** – Global automobile majors, such as General Motors and Volvo, are sourcing fasteners from Sundaram Fasteners, the largest manufacturer of high tensile fasteners in India.
- **Infrastructure and Engineering Goods** – The Swedish utilities major, ABB, is planning to invest in manufacturing plants in Vadodara and Nashik, in India. It is also steadily increasing sourcing from India for worldwide consumption.
- **Retail** – The world's largest retailer, Wal-Mart, considers India as one of its fastest growing sourcing hubs. In 2005, Wal-Mart is expected to source US\$1.5 billion worth of merchandise to its stores globally, from India.

As another example, the Swedish white goods major, Electrolux, not only sells consumer appliances to the Indian market, but also has plans to source from India.

3.3.2 Outsourcing/Offshoring of services – Evolves to high-end knowledge processes

Outsourcing/offshoring, especially of services, has become an increasingly viable option for companies trying to improve their operational efficiency, bottom line and business performance. The key types of outsourcing services include the following:

- Information Technology (IT) and IT-enables Services (ITeS) Outsourcing
- Business Process Outsourcing (BPO)
- Knowledge Process Outsourcing (KPO)

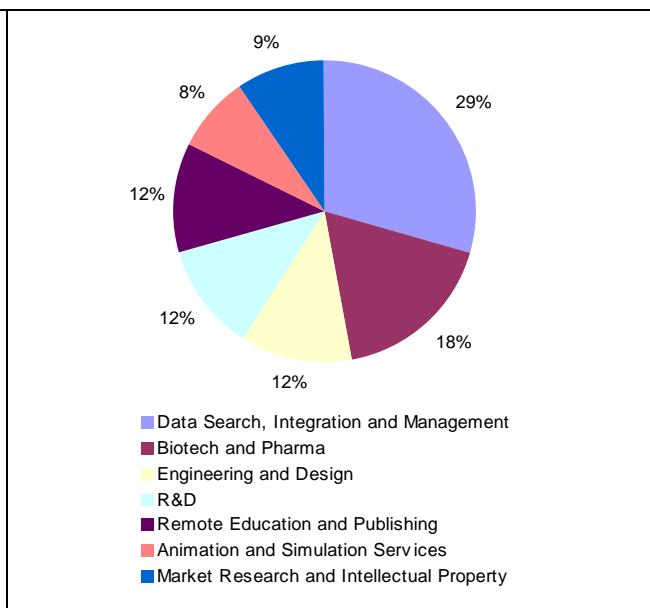
Initially, the outsourcing of services was limited to software and services. During the late 1990s, this evolved to the outsourcing of business processes, such as call-centre/customer assistance and technical support.

The continuing maturity and evolution of outsourcing strategies led businesses to shift towards the outsourcing of high-end knowledge processes to cost-effective destinations, a trend referred to as KPO. This involves the outsourcing of knowledge-intensive processes that require significant domain expertise, such as business research, patent drafting, data analytics and equity research. Figure 11 and 12 represent the evolution of this industry:

Figure 11: Outsourcing has matured to high-end KPO over the past 15 years

Started in:	1990s	1998	2000
Market Size - 2003	USD 21.5 billion	USD 2.78 billion	USD 0.72 billion
CAGR: 2003-2010	27.5%	30.6%	49.5%
Share in Indian Services Sector	7.03%	0.91%	0.24%
Share in Global Market	2003	1.6%	36.1%
	2010	NA	45.2%
Service Offerings	IT Services: System Analysis; Network Design; Software Implementation; Systems Integration; R&D Engineering; Remote Network Management	Transaction processing; Setting up a bank account; Selling an insurance policy; Technical support; Voice and email-based support	Corporate and Business Research; Valuation Research; Investment Research; Data Analytics and Modelling; Patent Filing; IP Asset Management

Figure 12: KPO services to increase by 2010 (100%=US\$17 billion)



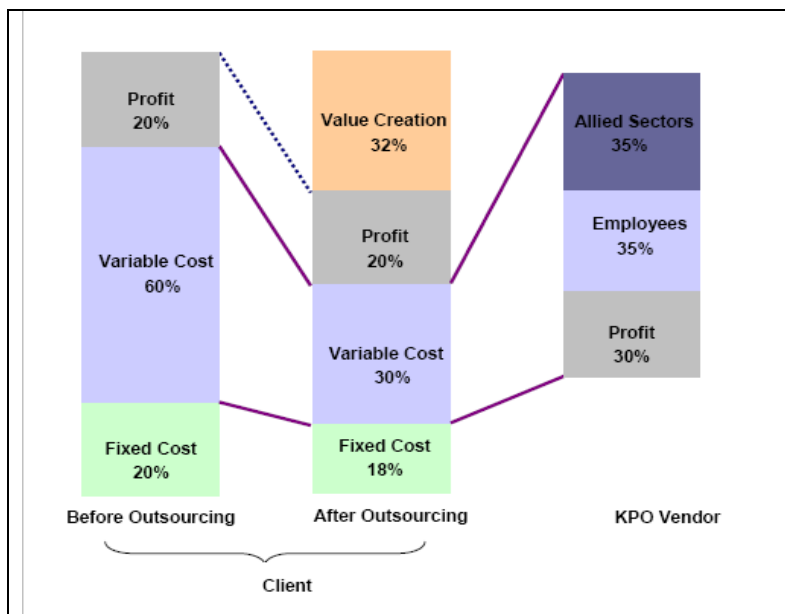
Source: Nasscom, Evalueserve Analysis

The outsourcing of high-end knowledge processes, unlike traditional BPO solutions that are commoditised fixed-price solutions, are usually customised and value-based. Figure 9 provides Evalueserve estimates on the market size of some of these high-end processes by the year 2010.

The shift to a knowledge-intensive economy has been gradual for India. The transition can be attributed to:

- Shortage of knowledge professionals in developed nations and the presence of a large pool of highly-skilled and cost-effective labour force in destination countries such as India
- Drivers such as reduced time-to-market, the need for increased operational flexibility and access to global markets
- Buyers tend to save more at the higher-end of the value chain, thereby making KPO more attractive
- Maturity and evolution of destinations such as India in the delivery of complex projects

Figure 13: Value creation of KPO



Source: Evalueserve Analysis

KPO can create significant value for the firms that engage in outsourcing/offshoring:

- According to a study by AT Kearney, a firm can reduce its fixed cost by about 10 percent through outsourcing.
- Further, Evalueserve estimates that variable costs can be reduced by 50 percent.
- These cost savings lead to value-creation for the clients of KPO firms.
- Assuming that the profit margin for the client remains the same, there is a potential saving of 32 percent, which can then be deployed by the client to enhance its competitiveness.



Indo-Swedish Business Collaboration

The benefits of outsourcing would serve small and medium enterprises (SMEs) even better. As it is more difficult for them to build their own captive centres at low-cost destinations, as compared with large enterprises, SMEs could leverage the benefits of outsourcing by engaging with a third-party KPO vendor.

To summarise, as the world moves towards a more integrated and knowledge-intensive economy, Indian and Swedish firms can leverage each other's strengths to build long-lasting partnerships.

4 Appendix

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31. Various companies' (mentioned in the White Paper) websites

Key Abbreviations Used

1. Automotive Components Manufacturers Association (ACMA) of India
2. Billion Units (BU)
3. Business Process Outsourcing (BPO)
4. Compounded Annual Growth Rate (CAGR)
5. Confederation of Indian Industry (CII)
6. Council of Scientific and Industrial Research (CSIR)
7. current Good Manufacturing Practices (cGMP)
8. European Union (EU)
9. Foreign Direct Investment (FDI)
10. Good Clinical Practices (GCP)



11. Good Laboratory Practices (GLP)
12. Gross Domestic Product (GDP)
13. Information Technology (IT)
14. IT-enables Services (ITeS)
15. Knowledge Process Outsourcing (KPO)
16. National Capital Region (NCR) of Delhi
17. National Council of Applied Economic Research (NCAER)
18. Purchasing Power Parity (PPP)
19. Research and Development (R&D)
20. Scandinavian Automotive Suppliers Association (SASA)
21. Small and Medium Enterprises (SMEs)
22. Swedish South Asia Studies Network (SASNET)
23. World Health Organization (WHO)
24. World Trade Organisation (WTO)



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