CHAPTER VII

INDIA AND TRADE IN SERVICES
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7.1 Background

India's record of growth and development since the 1991 reforms has been impressive. During the last decade i.e. since 1991, real GDP grew at an annual average rate of around 6 per cent. Exports and inflows of foreign direct investment (FDI) registered an upward trend, thus giving an indication of growing and progressing Indian economy.

The economic environment of the country over the past decade reveals that the real GDP growth averaged around 6% per annum; in the mid nineties it reached an all time high of 7% decelerating there after to around 5.5% per annum over the five years ending in 2001-02. This is commendable both by India's historical standards and in comparison with the growth rates of other developing countries. Development indicators such as adult literacy rates and poverty levels also show considerable progress. Even so, these achievements leave a lot to be desired. The rate of unemployment is put at around 7.3% and as the government of India report acknowledges, employment in the organised sector increased by a mere 1% per annum for the most part of the last decade, with almost all of the gains in employment coming from the private sector.

Admittedly India's exports have increased since the reforms in 1991. As the government of India's report notes in the post-reform period the annual rate of growth of exports was around 10% and India's share in world exports increased from 0.5% in the first half of 1990s to 0.7% in 2000-01. Even so, exports have not exhibited the momentum required
for them to act as an engine of growth. The composition of India's exports of manufactures has not changed much over the years, textiles and clothing (27%), Diamonds (14%), Chemicals (10%), account for half of total exports. The total contribution by service exports has also been increasing at a rapid pace over the years. The majority of which is contributed by software services.

If we look at the trend in current account of BOP for the last decade we see that trade in invisibles has always shown a surplus except in 90-91 and in this way it has been partially able to tie over the deficits in current account of BOP arising due to deficit in trade balance. Considering the current account of BOP in 1990-91, we see that trade deficit was Rs. 16934 crores, deficit in invisibles was Rs. 433 crores and current account deficit was RS.17637 crores, but in 1991-92 trade deficit was Rs.6494 crores, surplus in invisibles was Rs. 4259 crores and current account deficit was reduced to Rs.2235 crores. In 95-96 the trade deficit was Rs.38061 crores, surplus in invisibles was Rs. 18415 crores and the current account deficit was Rs. 19646 crores. In 2002-03 trade deficit was Rs.60350 crores, surplus in invisibles was Rs. 78275 crores and the current account surplus was Rs. 17925 crores (RBI, 2003).

Exports of services though have grown rapidly, with the growth of software exports being the major success story. The group of miscellaneous services, which includes software, financial and management services, contributed $14.67 billion to total foreign exchange earnings in the year 2001-02. Exports of software increased from $4 billion in 1999-2000 to $ 7.2 billion in 2001-02. Total receipts from invisibles in the year 2001-02
amounted to $36 billion, which compares with total receipts of $44 billion from the export of goods. The buoyant service sector, especially the so-called miscellaneous services that includes software, has contributed to the sizeable volumes of India’s foreign exchange reserves in recent years. While the service sector in general shows an impressive growth it may be a bit premature to argue that India is destined to be a service economy. Sustained growth of the sector is dependent on world market conditions and also on the development of infrastructure facilities at home (RBI, 2003).

The level of India’s export in services, its growth rate and the share in world trade indicates that we have significant potential in trade in services. The sectors of importance could be computer and related services, professional services covering accountancy, auditing & book keeping services, architecture services, medical and dental services, audio-visual services, construction and engineering services, education services and tourism and travel related services. In these fields the Indian professional have core competence and competitive advantage which needs to be actualized through liberalization of delivery of services through Mode 4 and Mode 1. There is in existence significant opportunity for export of services under Mode 2, i.e. consumption abroad for instance in case of health services the citizen of other countries who pay very high amount for surgery and other treatment, can come to India and avail such services at a fraction of a cost of obtaining such services in their own countries (Chatterjee, 2002).

In the new millennium, when India is striving for 20% growth of exports and increase in its share (0.7% to at least 1%) in world trade of merchandise and services taken together,
the country's initial condition in service exports is impressive. Emerging software export
capacity and fast growing net earnings reflected in significant private transfers is indeed
good news for India.

Table 7.1. Trade in Service: India and the World

<table>
<thead>
<tr>
<th>Year</th>
<th>India's Exports: US$ million</th>
<th>World Exports US$ million</th>
<th>India's Share(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>4610</td>
<td>793100</td>
<td>0.58</td>
</tr>
<tr>
<td>1991</td>
<td>4906</td>
<td>838200</td>
<td>0.59</td>
</tr>
<tr>
<td>1992</td>
<td>4894</td>
<td>945700</td>
<td>0.52</td>
</tr>
<tr>
<td>1993</td>
<td>5034</td>
<td>949600</td>
<td>0.53</td>
</tr>
<tr>
<td>1994</td>
<td>6031</td>
<td>1036800</td>
<td>0.58</td>
</tr>
<tr>
<td>1995</td>
<td>6763</td>
<td>1188900</td>
<td>0.57</td>
</tr>
<tr>
<td>1996</td>
<td>7179</td>
<td>1274700</td>
<td>0.56</td>
</tr>
<tr>
<td>1997</td>
<td>9111</td>
<td>1326700</td>
<td>0.69</td>
</tr>
<tr>
<td>1998</td>
<td>10067</td>
<td>1340500</td>
<td>0.75</td>
</tr>
<tr>
<td>1999</td>
<td>14006</td>
<td>1391100</td>
<td>1.01</td>
</tr>
<tr>
<td>2000</td>
<td>17670</td>
<td>1475700</td>
<td>1.20</td>
</tr>
<tr>
<td>2001</td>
<td>21011</td>
<td>1478100</td>
<td>1.42</td>
</tr>
<tr>
<td>2002</td>
<td>23300</td>
<td>1570100</td>
<td>1.48</td>
</tr>
<tr>
<td>2003</td>
<td>25043</td>
<td>1796500</td>
<td>139</td>
</tr>
</tbody>
</table>

Source: WTO Annual Reports

The table 7.1, shows that the share of India's service exports to world exports has
increased from 0.57 percent in 1990 to 1.01 percent in 1999 and to 1.39 percent in 2003.
India's export in services in absolute terms also has increased from US$4610 million in

In the case of India, the share of value added by services in GDP increased from 36% in
1980 to more than 49% in 2000. India's share in world exports of services also increased
from 0.55% to 0.65% during this period. In 2000, the share of service exports ($ 13.2
billion) in total exports ($ 49.7 billion) of India was 26.7% contrary to general belief, the
share of services in total exports of China and Far Eastern countries was in range of 10-20%. Among other regions, South Africa, Mexico and Russia all had much less share. The share of services work out to little over 16% and 14% to total exports including re-exports in the case of Hong Kong & Singapore respectively. The share is low at 15.65 in case of Japan, compared to over 26% share for the US and UK and 21.6% in Italy. It is low at 12.8% in Germany. At the world level the share is less than 20% (Raipura 2000).

The share of services other than travel and transport, in total service exports of India is more than 57%, a feature unique among the major developing trading countries, paralleled only by Malaysia, Turkey and Brazil and which is similar to the major advanced trading countries with US (46.3%), UK (56%), Germany (53.4%) & Japan (60%). The share of tourist and transport is significant in service exports of China, S. Korea, Thailand as also of Poland, Mexico, S. Africa and Russia.

India is in good position in the league of service exporters among the developing countries. The share of services in the total exports increased during 1990-98 in a significant way by 3.6%, while it declined in case of Thailand, Ireland, Singapore and Philippines, change was marginal in case of Hong Kong, South Africa, Malaysia and South Korea. The world level increase was less than 1%.

India’s major competitor as of now may be are Mexico, Poland and Turkey but soon Brazil, China and some of the far eastern countries will be competing with India. The recent 50% plus growth in exports of software is an important indicator. Since India’s
service exports increased at the rate of 12.4% during 1990-99, compared to 7.8% growth of world exports, its share increased from 0.57% to 0.99% over the period. Thus, India has almost touched the 1% share limit (Raipura, 2001).

The importance of service sector in the development of economy is realized by government and hence the government is aware of the need to improve the provision of services and that the investment requirement is beyond the means available to the government. India has liberalized its FDI regime during the 1990's, foreign equity up to 51% is now automatically allowed in restaurants and hotels, support service for land and water transport, parts of refining and leasing, business services including software and health and medical services. The automatic approval provision for foreign equity is 74% in the case of mining services, non-conventional energy generations and distribution, land and water transport, storage and warehousing.

The insurance sector has recently been opened to private sector. India’s schedule under the GATS provides for specific commitments covering business services, communications, construction work for civil engineering, financial services, health related and social services and tourism services. The extent of commitment varies across sectors, with certain restrictions on market access and national treatment under four modes of supply of services (Chadha, 2000).

India further liberalized its commitments in basic telecommunication services in early 1998. It was among 43 countries participating in the Information Technology Agreement
covering computers, telecommunication equipment, semiconductors, manufacturing
equipment for semiconductors, software and scientific instruments. India's share in
services trade is higher than its share in manufacturing trade (Chakraborty &
Jayachandran, 2001). The service sector boom in India in the post Uruguay Round period
shows that India has a competitive advantage in several service sectors. There is potential
for poverty alleviation from services trade, although this has been largely ignored. While
services may not employ people below poverty line directly, liberalisation has made a
number of services accessible at economic prices to a large number of people, including
the poor. In addition, the potential for employment of unskilled personnel in some
services sectors such as telecommunication, tourism and audio-visual is very high. For
example, nearly two-thirds of the employment in the telecommunications sector is of
those with low or no skills. It is thus essential to lock in commitments on services
liberalization so that there is no backlash and increase in protection that would restrict
outsourcing to India. India also wants to obtain assured market access commitments
especially for labour movement. Internally, India needs to impose Universal Service
Obligations on service providers to help ensure that rural and backward areas also benefit
from the liberalization of services (Jha, Nedumpara, Gupta, 2004).

The table 7.2 shows that the share of India's service exports as a proportion of Gross
Domestic Product has increased from 1.81 percent in 1990 to 3.13 percent in 1999 and to
4.23 percent in 2003. India's export in services in absolute terms also has increased from
Table 7.2 Share of India’s Service Exports as a Proportion of its GDP

<table>
<thead>
<tr>
<th>Year</th>
<th>India’s Exports US$ million</th>
<th>India’s GDP US$ million</th>
<th>Service Export (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>4610</td>
<td>254540</td>
<td>1.81</td>
</tr>
<tr>
<td>1991</td>
<td>4906</td>
<td>221925</td>
<td>2.21</td>
</tr>
<tr>
<td>1992</td>
<td>4894</td>
<td>214598</td>
<td>2.28</td>
</tr>
<tr>
<td>1993</td>
<td>5034</td>
<td>225431</td>
<td>2.23</td>
</tr>
<tr>
<td>1994</td>
<td>6031</td>
<td>293606</td>
<td>2.05</td>
</tr>
<tr>
<td>1995</td>
<td>6763</td>
<td>324082</td>
<td>2.09</td>
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<td>1996</td>
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<td>356027</td>
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<tr>
<td>1997</td>
<td>9111</td>
<td>359812</td>
<td>2.53</td>
</tr>
<tr>
<td>1998</td>
<td>10067</td>
<td>383429</td>
<td>2.89</td>
</tr>
<tr>
<td>1999</td>
<td>14006</td>
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<td>3.87</td>
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<td>2001</td>
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<td>477555</td>
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<tr>
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<td>482618</td>
<td>4.83</td>
</tr>
<tr>
<td>2003</td>
<td>25043</td>
<td>591455</td>
<td>4.23</td>
</tr>
</tbody>
</table>

Source: World Development Indicator (various issues)

7.2 Types of services and their export potentials

Business Services

Business services include professional services, computer software and related services, research and development services, real estate, rental, leasing and other business services. Multi-national companies from United States dominate this sector. Though India has the second largest stock of professional in the world, India’s market share in world export of business services is negligible. Such services involve movement of Indian specialists, professionals and consultants to foreign countries for providing such services and also involve services of commercial establishments abroad and foreign tie-ups, either in India or abroad, which enable India to export such services. Business services exported by India include professional services, computer software, consultancy and other services. Growth in India’s business services has been favourably influenced by a large
contribution from export of computer software and services with other categories of business services growing at much slower rate.

According to the Federation of Indian Export Organisation, there are major constraints to export of business services. One is that the Indian consultants in the international market are at a disadvantage since lower weightage is being given to price bid in selecting consultants for funded projects, the emphasis being on hiring technically the best. The other main reason is limited scope for undertaking consultancy without private or government funding, especially in many developing countries facing severe resource crunch (Mukherjee 2000).

Software Services
India possesses the world's second largest pool of scientific manpower that is also English speaking. Moreover, Indian software is of high quality and with relatively low cost. The software industry has emerged as one of the fastest growing and most vibrant segment of India's economy during the 1990's. The domestic software market increased form US $ 160 million in 1992-93 to US $ 944 million in 1997-98, thus registering an average growth of 43% per annum (Joseph & Harilal, 2001). India's software exports have been growing rapidly since 1990. The exports of software increased from US $164 million in 1991-92 to $3.4 billion worth of software services in 1999-2000, which increased to $12.2 billion in the year 2005 (D’costa, 2005).
India has already acquired a substantial market share in the global cross-country, customized software development market. Its share in the global market has increased from 11.9% in 1991 to 18.5% in 1998. India has been recognized as an important base for software development in 1997-98, more than 158 of Fortune 500 companies outsourced their software requirements to India. In 1998-99, over 200 of 1000 Fortune companies looked to India to meet their software requirements. Developed countries, in their efforts to solve IT related problems have come forward even to relax visa restriction, for Indian software professionals.

We are living today in an era of information communication technology revolution. By augmenting the process of information exchange and reducing transaction cost. It offers enormous opportunity for productivity enhancement and growth in all spheres of human activity. To reap the potential of this technology, a prerequisite, however is the diffusion of IT in to different sectors of the economy and society. India enjoys enormous comparative advantage in the export of IT services. During 90’s IT service exports from India recorded an annual compound growth rate of over 60% in rupee terms (at current prices) and over 46% in $ terms. Indian software industry has been able to establish credibility in the international market, which is unique compared with the most other items in our export basket (Joseph & Harilal, 2001).

The study by Harilal and Joseph underlined the need for a structural transformation of India’s IT export sector, specifically in terms of upward movement in the software value chain, so as to achieve the target of $ 50 million in export by 2008. It is also important
that the present dependence on the US market, which accounts for over 60% of India’s export earnings, is reduced. Thus there appears to be an urgent need for diversification not only in terms product specification but also in terms of destination (Joseph & Harilal, 2001).

According to Delhi-based NASSCOM, India’s quasi-governmental Software Industry Promotion Organisation, the software industry in India was worth Rs. 243.5 billion, or US $ 5.75 billion in 1999-00, whereas 10 years back its worth was not more than Rs. 3 billion or US $ 150 million. Although India’s domestic software market is burgeoning fast, the most important factor that has driven this growth is the growth of the export market. While still it has a relatively small share of total exports, India’s software export business is growing at an increasing rate. India’s comparative advantage in software industry generated by its relative abundance of skilled software personnel, Coupled with its rapidly improving communication infrastructure, has played a key role in creating confidence among buyers of Indian software product and related services. Indian software developers offer a cost advantage of 40-60% over their American counterpart. Due to lack of significant domestic demand, growth in Indian software industries has been spurred mainly by the growth in export market demand. The export market is concentrated in US and Europe (Chakraborty & Jayachandran, 2001).

Communication Services

It consists of postal services, courier services, telecommunication services, audio-visual services and other miscellaneous services. Of the different communication service, it is
the telecommunication sector, which assumes greater importance in today’s world. India has taken positive steps towards liberalizing the telecommunications market and introducing private investment and competition in basic telecommunications services (Mukherjee 2000).

**Distribution Services**

It includes commission agents’ services, wholesale trade and retailing services, franchising and other services. Distribution networks in India are witnessing strong business opportunities in distributing other brands, especially of multinational companies entering India. Hence, one dominant mode of delivery of tradables in distributing services is consumption abroad by multinationals operating in India. Many manufacturing companies in India have their own distribution channels, which are often under-utilised or rented to others. Thus to reap the benefits of this sector, it is necessary that the sector is technologically upgraded, so as to have its efficient utilization (Mukherjee 2000).

**Financial Services**

Financial services consist of all insurance and insurance-related services, banking and other financial services. India’s financial sector, consisting of banking and insurance, registered relative increase as a proportion of GDP at a factor cost from 5.26% in 1990-91 to 6.69% in 1995-96. In the nineties, India has undertaken some reforms in the financial sector. Such reforms include interest rate decontrol, liberalization of cash reserve ratio, flexibility of banks to fix their own foreign exchange open position limit,
enhanced refinances facilities against government and other securities and space for operation of private sector banks.

i) Insurance
Prior to 2000, all insurance companies were government-owned, except for a number of private sector firms providing reinsurance brokerage services. On December 7, 1999, the Indian Parliament passed the Insurance Regulatory and Development Authority (IRDA) bill that ended the government monopoly and established an insurance regulator. The law opened India's insurance market to private participation with a limit on foreign equity of 26 percent of paid-up capital. In the WTO Financial Services negotiations that concluded in December 1997, India bound the limited range of insurance lines then open to foreign participation. In addition, India committed to most-favored-nation (MFN) treatment effective from January 1999, for the financial services sectors.

ii) Banking
Most Indian banks are government-owned, and entry of foreign banks remains highly regulated. State owned banks control 80 percent of the banking system. The Reserve Bank of India issued in January 1993 guidelines under which new private sector banks may be established. Operating approval has been granted to 25 new foreign banks or bank branches since June 1993. As of September 2003, 35 foreign banks with 207 branches were operating in India. Foreign bank branches and representative offices are permitted based upon reciprocity and India's estimated or perceived need for financial services. Five U.S. banks now have a total of 16 branches in India. They operate under restrictive conditions including tight limitations on their ability to add sub-branches.
Operating ratios are determined based on the foreign branch's local capital, rather than the
global capital of the parent institution. India's commitments under the 1997 WTO
Financial Services Agreement provided for a greater role for foreign banks starting in
January 1999. Foreign banks are allowed to open twelve new branches annually (up from
the prior commitment of eight per year). India did not, however, agree to grant national
treatment to foreign companies investing or seeking to invest in the financial services
sector, nor did it make any commitments on cross-border banking. Foreign direct
investment (FDI) in banking is slowly being liberalized and the foreign equity ceiling has
been raised to 74 percent from 49 percent for investment in private banks. FDI in state-
owned banks remains capped at 20 percent. Foreign banks may also set up subsidiaries as
an alternative to branches of the parent company (India, 2004).

Tourism and Travel-related Services

Tourism is the largest export industry in the world accounting for 8% of total exports and
more than 30% of international trade in services. Global export earnings of tourism
reached $442 billion in 1997 and are expected to touch $1550 billion by 2010 as per the
estimates of World Tourism Organisation. India is way behind countries like US, France,
Italy, Spain, UK, Austria, Germany and China, which are currently the leading countries
in world tourism.

Though India is a negligible player in world tourism, India's tourism industry is
significant in terms of generating Rs. 37,000 crore and employing 2.1 crore people, both
directly and indirectly. India's tourism earnings recorded a growth of 12% in 1994-95,
largely due to increase in per capita expenditure of tourists. There is a scope for augmenting India's tourism and travel-related exports by attracting higher inflow of tourists and providing quality-oriented efficient services (Mukherjee 2000).

Indian Tourism industry is one of the most important export industries of the country. Although the international tourist inflow is relatively low, India has found tourism emerging as an important sector of its economy. Recent statistics have revealed that during the first quarter of 2006, the performance of the tourism industry has been very encouraging which has registered an 11% increase in foreign tourist arrivals. According to the market researchers, in 2006, the total in-bound tourists were 1.28 Million while the same was 1.14 Million in 2005. The resulting foreign exchange earnings were as high as 12% of an amount of $1,780 Million (Koumelis Theodore, 2006).

7.3 Structural Changes in India's Service Exports

The structural change in India's trade in services is analysed by examining the changing share of export earnings and import payments of different services included in India's BOP account.

Balance of payments (BOP) account of India is classified into current account and capital account. The current account is again divided into merchandise account and invisibles account. The trade in services is reflected in invisibles account. Invisibles account is
further classified into three categories: a) services; b) transfers; and c) income. In this what is more important in the study of international trade in services is category (a). There are five items in the category of services account of India: They are: (i) travel, (ii) transportation, (iii) insurance, (iv) G.n.i.e (govt. not included elsewhere) and, (v) Miscellaneous. These five categories taken together are called non-factor services.

Table 7.3 The Share of Receipts of Different Services (Non-Factor)

<table>
<thead>
<tr>
<th>Year</th>
<th>Travel</th>
<th>Transport</th>
<th>Miscellaneous</th>
<th>Insurance</th>
<th>G.n.i.e</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>5.61</td>
<td>33.7</td>
<td>30.33</td>
<td>8.98</td>
<td>21.34</td>
<td>100</td>
</tr>
<tr>
<td>1960</td>
<td>9.61</td>
<td>28.8</td>
<td>23.71</td>
<td>5.128</td>
<td>32.69</td>
<td>100</td>
</tr>
<tr>
<td>1970</td>
<td>16.51</td>
<td>50</td>
<td>14.22</td>
<td>5.5</td>
<td>13.76</td>
<td>100</td>
</tr>
<tr>
<td>1980</td>
<td>43.52</td>
<td>16.29</td>
<td>33.90</td>
<td>2.30</td>
<td>3.97</td>
<td>100</td>
</tr>
<tr>
<td>1990</td>
<td>31.98</td>
<td>21.60</td>
<td>43.64</td>
<td>2.43</td>
<td>0.33</td>
<td>100</td>
</tr>
<tr>
<td>2000</td>
<td>16.74</td>
<td>10.10</td>
<td>68.31</td>
<td>1.35</td>
<td>3.47</td>
<td>100</td>
</tr>
<tr>
<td>2001</td>
<td>14.08</td>
<td>9.53</td>
<td>72.83</td>
<td>1.29</td>
<td>2.27</td>
<td>100</td>
</tr>
<tr>
<td>2002</td>
<td>12.12</td>
<td>10.18</td>
<td>74.98</td>
<td>1.48</td>
<td>1.24</td>
<td>100</td>
</tr>
<tr>
<td>2003</td>
<td>14.30</td>
<td>11.46</td>
<td>71.84</td>
<td>1.52</td>
<td>0.89</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: RBI Annual Reports

The table 7.3, Shows shares of receipts of different services export in the total non-factor services (commercial services). The share of receipts of travel has gone up over the years from 5.61 percent to 14.30 percent. In 1980, it had reached a highest percentage share of 43.52 percent and thereafter it declined to reach a level of 14.30 percent. The share of transport services has come down from 33.7 percent to 11.46 percent. The miscellaneous services, which include, tourism, financial services, consultancy services, software services etc has gone up from 30.33 percent in 1950 to 71.84 percent in 2003. The share of insurance service also has come down from 8.98 percent to 1.52 percent. The share of services under G.n.i.e. has also fallen. Here we can see a structural change in the service
exports. The traditional service exports like transportation have lost its significance. The case is same with services included under G.n.i.e. However, the increasing share of miscellaneous services shows that the importance of new varieties of services in India’s export of services.

The rate of growth of receipts from service exports is given in table (3). Table shows annual compound growth rate for the period 1956-71, 1972-87 and 1988-2003

Table 7.4. Growth of Receipts from Service Exports: Total Non-factor

<table>
<thead>
<tr>
<th>TIME PERIOD</th>
<th>β₀</th>
<th>β₁</th>
<th>GROWTH RATE</th>
<th>R²</th>
<th>D.W</th>
<th>N</th>
</tr>
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<tbody>
<tr>
<td>1956-1971</td>
<td>4.80</td>
<td>0.046</td>
<td>4.71</td>
<td>0.76</td>
<td>1.89</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>(77.07)*</td>
<td>(7.10)*</td>
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<tr>
<td>1972-1987</td>
<td>5.68</td>
<td>0.19</td>
<td>20.9</td>
<td>0.94</td>
<td>0.95</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>(50.38)*</td>
<td>(16.67)*</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1988-2003</td>
<td>8.33</td>
<td>0.23</td>
<td>25.86</td>
<td>0.97</td>
<td>1.29</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>(97.39)*</td>
<td>(26.40)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figures in Parenthesis are ‘t’ values  *-significant at 1 percent level

Table 7.4. gives the growth of total receipts from non-factor service exports. During the periods 1972-87 and 1988-2003, the growth rates have increased from 20.9 percent to 25.86 percent respectively. The period 1988-2003 witnessed almost 5 percent higher growth rate compared to the previous period. The values of service exports are expressed in rupee terms (crores)

7.4 Comparison of Exports of Goods and Services

Having seen the growth rates of service exports over different periods, it would be interesting to know the growth rates of exports of goods over the same periods. A
comparison of these two growth rates would enable us to understand the differences in
growth rates of merchandise exports and service exports. Here an attempt is made to
understand the growth differences in exports of goods and export of commercial services
using compound growth rates. The growth rates of merchandise exports over three
periods are given in table 7.5.

Table 7.5 Growth of Merchandise Exports

<table>
<thead>
<tr>
<th>TIME PERIOD</th>
<th>$\beta_0$</th>
<th>$\beta_1$</th>
<th>GROWTH RATE</th>
<th>Adj.R$^2$</th>
<th>D.W</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956-1971</td>
<td>6.18</td>
<td>0.07</td>
<td>7.25</td>
<td>0.87</td>
<td>0.71</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>(93.27)*</td>
<td>(10.27)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972-1987</td>
<td>7.70</td>
<td>0.13</td>
<td>13.88</td>
<td>0.96</td>
<td>0.57</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>(122.35)*</td>
<td>(19.48)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988-2003</td>
<td>10.01</td>
<td>0.17</td>
<td>18.53</td>
<td>0.97</td>
<td>0.36</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>(138.99)*</td>
<td>(22.69)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figures in Parenthesis are ‘t’ values, * significant at 1 percent level

The comparison of table (7.5) with table (7.4) shows that during the period 1956-71 the
service export was just 4.71 percent per annum as compared to 7.25 percent per annum
growth in the case of merchandise exports. The situation has changed during the periods
1972-87 and 1988-2003. During the period 1972-87, the services exports have grown by
20.9 percent compared to only 13.88 percent growth in merchandise exports. The recent
period 1988-2003 also witnessed a higher growth rate in services exports. The services
exports grew by 25.86 percent as compared to 18.53 percent growth in merchandise
exports. The results show that exports of services are very important as it grows faster
than the merchandise exports.
7.5. Factors determining India’s trade in services

In the context of growing significance of trade in services, it is important to know which factors determine the trade in services of a country. A regression based study has been conducted by Fieleke, which shows trade in goods is an important factor in determining bilateral trade in services for United States (Fieleke, 1995)

Regression Model

7.5.1 The Data and Variables

The study uses time series data for India for a period of 19 years i.e. from 1985 to 2003. The reason for selecting the above years is because India trade in services has been flourishing since 80’s. The data has been collected from different issues of RBI bulletin. The variables included in the study are trade in services, trade in goods, share of service sector in GDP. The variables are expressed in crores of rupees.

The study used static and dynamic econometric models. The static model (Model-1) is a log-log Multiple Regression model. It is depicted as follows:

Model- I: \[ TS = \beta_0 + \beta_1 TG + \beta_2 VSS + u \]

The dynamic model (Model-II) is given in the form of partial adjustment model (Gujarati, 2003).

Model II: \[ TS = \delta \beta_0 + \delta \beta_1 TG + \delta \beta_2 VSS + (1-\delta ) \beta_3 TS_{t-1} + u_t \]

\[ \beta_0^* = \delta \beta_0 /\delta \]
\[ \beta_1^* = \delta \beta_1 /\delta \]
Here ' * ' denotes long run elasticity.

\[ \beta_1^* = \text{Long-run elasticity with respect to trade in goods} \]

Where

TS = Trade in Services
TG = Trade in goods
VSS = Value of Service sector in GDP

In the model I, the dependent variable is of trade in services exports and independent variables are trade in goods exports and value of service sector in GDP is included. Model II is partial adjustment model, in which the dependent and independent variables are same as in model I but with an addition of lag of trade in services. The \( \beta \) values measure the percentage change in mean value of \( Y \) for percentage change in their respective independent variables holding the value of other independent variables constant. The values of all the three variables have been found to be stationary at second order difference, and hence the number of observation in each case is 17 years.
7.6 Results and Discussion

The results of the regression models are presented in table (7.6) and table (7.7).

Table 7.6. Regression results of the Static Model (Model-I)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-value</th>
<th>F</th>
<th>Adj. R²</th>
<th>DW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant (β₀)</td>
<td>3075.78 (0.70)</td>
<td>155.45</td>
<td>0.95</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>TG (β₁)</td>
<td>1.83 (10.64)***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSS (β₂)</td>
<td>-0.16 (0.81)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Values in Parenthesis are t-values
***-significance at 1% level, ** - significance at 5% level.

Table 7.6 exhibits the results of multiple regression model in which trade in services is dependent variable and trade in goods and value of service sector in GDP are independent variables. The model shows that trade in goods is statistically significant. A Rs.1 crore increase in trade in goods will lead to an increase of Rs.1.83 crores in trade in services.

A good fit of the model is explained by high coefficient of determination and the statistically significant F-test value shows the overall significance of the model. The low DW estimates show the presence of autocorrelation problem in the data analysis.

Table 7.7 Regression results of Dynamic Model (Model -II)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (Impact elasticity)</th>
<th>t-value</th>
<th>F</th>
<th>Adj. R²</th>
<th>DW</th>
<th>Long run Elasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-837.95 (0.16)</td>
<td>102.54</td>
<td>0.95</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TG (β₁)</td>
<td>1.66 (7.88)***</td>
<td>2.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSS (β₂)</td>
<td>-0.16</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TŞ t-1 (β₃)</td>
<td>0.17 (1.95)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Values in Parenthesis are t-values ***-significance at 1% level, ** - significance at 5% level.

198
The results of partial adjustment model in table 7.7 shows that except the coefficient of value of service sector in GDP, the other two independent variables are statistically significant. The impact elasticity of trade in service to trade in goods is 1.66. However, the long run elasticity is 2.00. The high coefficient of determination shows the good fit of the model. The overall significance is revealed by statistically significant F-test value whereas low DW score depicts problem of autocorrelation in data analysis. The comparison of the results of the Model-I and Model-II show that there is dynamic behaviour in the dependence between trade in service and trade in goods.

7.7 Major Findings

Service sector and its trade have an impressive picture to present as far as India is concerned. Trade in services has been rapidly growing over the years, so is it helping the nation to tie over its deficits in current account, which arise due to large deficits in trade balance. When India is struggling to get a 1% share in world trade, trade in services and particularly the service exports seem to provide a kind of assurance. If we just have a look at table 7.1 in the chapter, we come to know that the service exports of India as a percentage of world exports are increasing very fast and the percentage of India’s service exports in the total world exports of services is more than 1%. Table 7.2 reveals that service exports are also increasing with increase in Gross Domestic Product of the country. They increased from 1.81% of GDP in 1990 to 4.23% of GDP in 2003.

The study tried to analyse the structural change in nations trade in services by examining the share of export earnings of different types of services included in India’s Balance of
Payment. The analysis showed that receipts from travel have gone up from 5.61% in 1950 to 14.30% in 2003, while that from transport declined from 33.7% in 1950 to 11.46% in 2003. The services whose share has been consistently growing over the years are miscellaneous services, which include software services, consultancy services, financial services, tourism services etc. Its share has increased from 30.33% in 1950 to 71.84% in 2003, while that of insurance and government services not included elsewhere declined considerably over the years.

The study also tried to know the factors determining the trade in services of India. For the said purpose the multiple regression models were constructed with the help of time series data for a period of 19 years from 1985 to 2003. The variables included in the linear models were trade in services as a dependent variable and trade in goods and value of service sector as independent variables. The first model shown in table 7.6 is a static model, the results of this model revealed that trade in goods is an important determinant of nations trade in services and if trade in goods increases by one crore then trade in services will increase by Rs. 1.83 crores.

An attempt was also made to know if the relation between trade in services and trade in goods follow a dynamic behaviour. The results based on partial adjustment model does show a presence of dynamic behaviour. The impact elasticity of trade in services to trade in goods is found to be 1.66 and long run elasticity to be 2.00.
An overall analysis of India's trade in services shows that India has vast potential in service trade. With objective and specific goal oriented trade policy with respect to service export and service sector, India is definite to gain in the world market for services in the years ahead.