

THE PERFORMANCE OF INDIAN IT EXPORTS

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ABSTRACT

The Indian Information Technology (IT) Exports has been widely studied. The present study based on secondary sources. IT is the acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by a micro-electronics-based combination of computing and telecommunications. It also examined the trends in Indian IT Exports, composition of IT Exports and proportion of IT exports in total production. The revenue contribution of this industry in country's GDP accounted for 7.5 per cent and in total exports 25.18 per cent in 2011-12. The export market, dominates the IT industry accounting for 65% of the revenue. Software products are among the most highly exported products from India. The IT exports increased from 7.39 per cent in 1997-98 to an impressive 25.11 per cent in 2005-06 and farther to 31.68 per cent in 2009-10. It has been observed that the IT sector is not only contributes significantly to export earnings and GDP but also emerges as a major source of employment generation in the country.

KEY WORDS: Information Technology (IT), Exports, Hardware and Software.

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INTRODUCTION

Export sector is considered to be a key and propulsive sector as it can diffuse economic development into other supporting industries. The rate and structural pattern of development of the developing countries are determined, to a large extent, by the vital role played by the export sector along with the primary and tertiary sectors of their economies. Emery (1967) empirically proved that higher rate of economic growth tend to be associated with high rates of export growth. Exports enable a country to increase foreign exchange earnings and solve the Balance of Payments (BOP) problem. It also enables a country to increase domestic production for overseas market which in turn generates employment and overall economic development.

The last decade in the global arena has witness a tremendous growth in the area of information technology (IT). Information technology essentially refers to the digital processing, storage and communication of information of all kinds. Rapid advances in the technologies for communication media like television, computer, internet, printing and publishing has enabled us to get prompt access to required information. IT has become one of the most robust industries in the world.

Indians (or people of Indian origin) have become leaders as well as contributors to the information technology (IT) revolution in the United States, reinforcing the impression that India is world class in IT. No doubt that the IT sector has been a dynamic one in many developed countries, and India has stood out as a developing country where IT, in the guise of software exports, has grown dramatically, despite the country's relatively low level of income and development. India's software industry is more robust than its hardware industry, at least in certain areas. The software development includes analysis and specification of requirements, design, coding, testing, installation, maintenance and support.

OBJECTIVES:

1. To evaluate the proportion of IT Exports in Total India's Exports.
2. To analyse the total Indian IT Exports.
3. To examine the Composition of IT Exports in India.
4. To analyse the Proportion of IT Exports in Total Production.

DATA SOURCES

Data and information are collected from Statistical Year Books published by Electronics and Software Export Promotion Council (ESC), NASSCOM, Reserve Bank of India Bulletins published by RBI, IMF publications, publications of Ministry of Trade and Commerce, Ministry of Information Technology, Government of India and also from various web sites. Simple Statistical tools like percentages have been used wherever necessary. Hence, to examine the structure and production of Indian IT industry, the data collected is from 1997-98 to 2011-12. This paper makes an attempt to delineate various dimensions of IT industry of India.

THE IT INDUSTRY IN INDIA

Information technology and Business Process Outsourcing are among the fastest growing sectors, having a cumulative growth rate of revenue 33.6% between 1997 and 1998 and 2002–03 and contributing to 25% of the country's total exports in 2007–08. The growth in the IT sector is attributed to increased specialisation, and an availability of a large pool of low cost, highly skilled, educated and fluent English-speaking workers, on the supply side, matched on the demand side by increased demand from foreign consumers interested in India's service exports, or those looking to outsource their operations. The share of the Indian IT industry in the country's GDP increased from 4.8% in 2005–06 to 7% in 2008. In 2009, seven Indian firms were listed among the top 15 technology outsourcing companies in the world. Another categorization in the structure of India's IT industry is related to the market. There are two major market classifications - the domestic market and the export market. The revenue contribution of this industry in country's GDP accounted for 7.5 per cent and in total exports 25.18 per cent in 2011-12. The export market, dominates the IT industry accounting for 65% of the revenue.

PROPORTION OF INDIAN IT EXPORTS IN TOTAL EXPORTS

The software industry is predominantly an export-oriented industry, accounting for above 70 per cent revenue of the industry. The share of export earnings in the total software revenue has been shooting up during the last decade. The software exports from India have been growing

at phenomenal rates during the recent years. In fact the boom in the ICT sector had been driven mainly by the export oriented growth of software industry. Indian IT software and services exports accounted for over 18 per cent of India's total exports during 2001-02. It is expected that by the year 2008, Indian IT software and services industry will account for 7 per cent of India's GDP and 35 per cent of India's total exports. However, India's IT software and services industry, at present, represents around two per cent of the overall global software market. The Government and software industry, have set an ambitious goal for the software sector amounting to around 4, 10, 836 crores of software exports by 2012-13, a share of 8.8 per cent of the relevant global market (Dept. of Information Technology, 2012-13).

Table -1 depicts the proportion of IT exports in total exports of India. IT exports are performing well in terms of its overall contribution to the total exports. It is clear from the Table the IT exports increased from 7.39 per cent in 1997-98 to an impressive 25.11 per cent in 2005-06 and farther to 31.68 per cent in 2009-10. It is pertinent to mention that the IT sector is playing vital role in almost all sectors of the nation and also providing a good amount of foreign exchange. It also observed from the Table that though there is tremendous increase in IT exports in total Indian exports, the share of Indian IT exports in world's IT exports is very meagre and reached around two per cent by 2011-12. With foresighted policies it could become a major force, capturing five to eight per cent of the world market

TABLE -1
PROPORTION OF INDIAN IT EXPORTS IN TOTAL EXPORTS
(Rs.Crores)

Years	India's Total Exports	IT Exports	% of IT Exports in total India's Exports
1997-98	130101	9610	7.39
1998-99	139753	14550	10.41
1999-00	159561	19900	12.47
2000-01	203571	32288	15.86
2001-02	209018	42300	20.24
2002-03	255137	52100	20.42

2003-04	293367	65700	22.40
2004-05	375340	85300	22.73
2005-06	456483	114625	25.11
2006-07	571779	158500	27.72
2007-08	655864	188200	28.69
2008-09	840755	259060	30.81
2009-10	845534	267850	31.68
2010-11	1142922	302900	26.50
2011-12	1465959	369127	25.18

Source: RBI statistical Hand Book, Electronics and Software Export Promotion Council, Statistical Year book, different Years.

TOTAL INDIAN IT EXPORTS

Table 2 gives the total exports of IT industry in India during the period 1997-98 to 2011-12. It is clear from the Table software exports are more than the hardware exports. During the study period, software exports increased from 70.76 per cent in 1997-98 to 88.45 per cent in 2011-12, whereas the hardware exports declined from 29.24 per cent in 1997-98 to 11.5 per cent in 2011-12. It is also observed from the Table that the annual growth of IT exports over previous year ranged between 3.39 per cent in 2009-10 to 62.25 per cent in 2000-01. Much fluctuation is witnessed in the exports of IT industry during the study period.

TABLE -2
TOTAL INDIAN IT EXPORTS

(Rs. Crores)

Years	Hardware Exports	% of Hardware Exports in Total India's Exports	Software Exports	% of Software Exports in Total India's Exports	Total IT Exports	% Change over previous year
1997-98	2810 (29.24)	2.16	6800 (70.76)	5.23	9610	-
1998-99	2050 (14.09)	1.47	12500 (85.91)	8.94	14550	51.40
1999-00	2600 (13.07)	1.63	17300 (86.93)	10.84	19900	36.77

2000-01	4788 (14.83)	2.35	27500 (85.17)	13.51	32288	62.25
2001-02	5800 (13.71)	2.77	36500 (86.29)	17.46	42300	31.01
2002-03	5600 (10.75)	2.19	46500 (89.25)	18.23	52100	23.17
2003-04	7700 (11.72)	2.62	58000 (88.28)	19.77	65700	26.10
2004-05	8000 (9.38)	2.13	77300 (90.62)	20.59	85300	29.83
2005-06	9625 (8.40)	2.11	105000 (91.60)	23.00	114625	34.38
2006-07	12500 (7.89)	2.19	146000 (92.11)	25.53	158500	38.28
2007-08	13200 (7.01)	2.01	175000 (92.99)	26.68	188200	18.74
2008-09	31226 (12.05)	3.71	227834 (87.95)	27.10	259060	37.65
2009-10	25900 (9.67)	3.06	241950 (90.33)	28.62	267850	3.39
2010-11	40400 (13.34)	3.53	262500 (86.66)	22.97	302900	13.09
2011-12	42627 (11.55)	2.91	326500 (88.45)	22.27	369127	21.86

Source: Electronics and Software Export Promotion Council, Statistical Year book, various issues.

Note: Figures in brackets are percentage of Total IT Exports.

It is also observed from the Table that in total Indian Exports the percentage of hardware exports is between two and three per cent, whereas the percentage of software exports increased tremendously from 5.23 percent in 1997-98 to 28.62 per cent in 2009-10, though declined to 22.27 per cent in 2011-12.

COMPOSITION OF INDIAN IT EXPORTS

Hardware and Software are the most natural main IT components that have consideration. The software will play a more important role and in many aspects the software will be of a higher degree of importance than hardware. During the study period the income from exports increased steadily and income from domestic market declined. For instance the percentage share

of income from domestic market is 60 per cent in 1997-98 which declined to 32.45 per cent in 2011-12, whereas the income from exports increased from 40 per cent to 67.55 per cent during the same period.

There are very few Indian software products that are available in the market. Most of these products are in the banking and financial services segments. According to the industry the rate of profitability in software services is much higher than software products. Hence, for these two reasons, the software industry in India has tended to focus much more on services than on products.

Table 3 reveals the details of Exports of Electronic Hardware and Computer Software/Services. It may be observed from the Table that the exportation of IT Enable Services (ITEs) includes Customer Interactions Services, Business Process Outsourcing (BOP), Insurance Claims Processing, Medical Transcription, Legal Database, Digital Content, Online education, Data Digitization, HR services and Website services from 1997-98 to 2001-02 the exports of Computer Software/Services is not included in ITEs. From 2002-03 the proportion of computer software is more than 70 per cent whereas the export of ITEs services are less than 30 percent. The export of electronic hardware reveals that there are many fluctuations in the proportions of various items of exports. The proportion of consumer electronics declined from 13.17 per cent in 1997-98 to 2.88 per cent in 2011-12. The proportion of Exports of Telecom Equipment and Electronic components shows an increasing trend where as the proportion of exports of the computer Hardware shows declining trend. For example the exports of Telecom Equipment increased from 10.67 per cent in 1997-98 to 42.70 per cent in 2011-12. Similarly the proportion of exports of Electronic components ranged between 28.47 per cent in 1997-98 and 48.77 per cent in 2003-04.

TABLE: 3
COMPOSITION OF IT EXPORTS IN INDIA

(Rs Crores)

Years	A. Electronic Hardware					Sub Total A	B. Computer Software/Services		Sub Total B	Total A+B
	1.Consu mer Electron ics	2.Teleco m Equipme nt	3.Instrume nts/ Office, Medical Equipmen ts	4.Electro nic Compone nts	5. Comput er Hardwa re		Compu ter Softwar e	IT Enabled Services		
1	2	3	4	5	6	7	8	9	10	11
1997-98	370 (13.17)	300 (10.67)	240 (8.54)	800 (28.47)	1100 (39.15)	2810	6800	0	6800	9610
1998-99	425 (20.73)	250 (12.20)	175 (8.54)	900 (43.90)	300 (14.63)	2050	12500	0	12500	14550
1999-00	450 (17.31)	180 (6.92)	170 (6.54)	1200 (46.15)	600 (23.08)	2600	17300	0	17300	19900
2000-01	620 (12.95)	580 (12.11)	560 (11.70)	1828 (38.18)	1200 (25.06)	4788	27500	0	27500	32288
2001-02	700 (12.07)	150 (2.59)	950 (16.38)	2200 (37.93)	1800 (31.03)	5800	36500	0	36500	42300
2002-03	750 (13.39)	500 (8.93)	1400 (25.00)	2400 (42.86)	550 (9.82)	5600	36000	10500	46500	52100
2003-04	825 (10.71)	165 (2.14)	1515 (19.68)	3755 (48.77)	1440 (18.70)	7700	41500	16500	58000	65700
2004-05	1150 (14.38)	350 (4.38)	1500 (18.75)	3800 (47.50)	1200 (15.00)	8000	54000	23300	77300	85300
2005-06	2000 (20.78)	500 (5.19)	2300 (23.90)	3800 (39.48)	1025 (10.65)	9625	75000	30000	105000	114625
2006-07	1500 (12.00)	650 (5.20)	3000 (24.00)	5850 (46.80)	1500 (12.00)	12500	105000	41000	146000	158500
2007-08	1600	625	3885	6100	990	13200	125500	49500	175000	188200

	(12.12)	(4.73)	(29.43)	(46.21)	(7.50)		(71.71)	(28.29)		
2008-09	2600 (8.33)	12276 (39.31)	4200 (13.45)	10500 (33.63)	1650 (5.28)	31226	164828 (72.35)	63006 (27.65)	227834	259060
2009-10	3000 (11.58)	7800 (30.12)	3500 (13.51)	9700 (37.45)	1900 (7.34)	25900	173550 (71.73)	68400 (28.27)	241950	267850
2010-11	1400 (3.47)	14800 (36.63)	4500 (11.14)	18400 (45.54)	1300 (3.22)	40400	187000 (71.24)	75500 (28.76)	262500	302900
2011-12	1227 (2.88)	18200 (42.70)	5600 (13.14)	15500 (36.36)	2100 (4.93)	42627	240700 (73.72)	85800 (26.28)	326500	369127

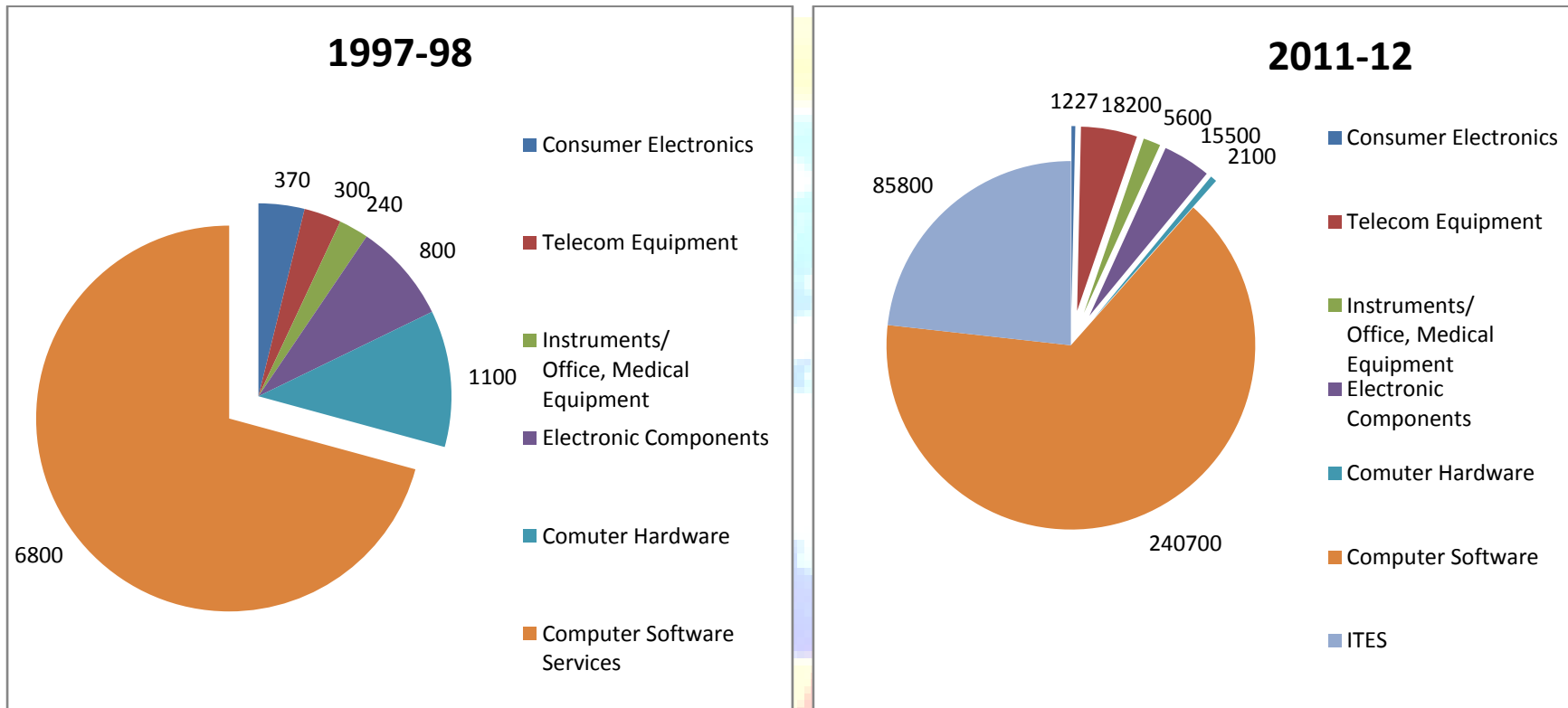
Note: Figures in brackets for 2, 3, 4, 5, 6 columns are proportions in column 7.

Figures in brackets for 8 & 9 Columns are proportions in column 10.

Source: Electronics and Software Export Promotion Council, Statistical Year book, different Years



COMPOSITION OF INDIAN IT EXPORTS
(Rs. Crores)



PROPORTION OF IT EXPORTS IN TOTAL IT PRODUCTION

Table 4 gives the proportion of IT exports in total IT production. It is clear from the Table Computer Software/Services are exported more than 70 per cent in all years of the study except in 1997-98.

Whereas in case of electronic hardware the share of exports is less than 20 per cent in all years except from 2008-09 to 2011-12. It is inferred that in total production of electronic hardware more than 70 per cent is utilized domestically, while less than 30 per cent is used domestically in case of computer software. It may be observed from the Table that the exports of both electronic hardware and computer software/services increased gradually from 29.97 per cent in 1997-98 to 65.73 per cent in 2011-12.

TABLE: 4

PROPORTION OF IT EXPORTS IN TOTAL PRODUCTION

(Rs Crores)

Years	A. Electronic Hardware					Sub Total A	B. Computer Software/Ser vices	Total A+B
	Consumer Electronic s	Telecom Equipme nt	Instruments/ Office, Medical Equipments	Electronic Compone nts	Computer Hardware			
1997-98	4.87	9.23	5.93	18.18	39.29	12.71	68.20	29.97
1998-99	4.62	5.68	3.80	18.95	13.04	8.12	71.63	34.07
1999-00	4.02	4.50	3.27	23.08	24.00	9.25	70.61	37.83
2000-01	5.19	12.89	0.97	33.24	35.29	15.40	74.53	47.48
2001-02	5.51	3.33	15.08	38.60	51.43	17.74	77.05	52.83
2002-03	5.43	10.42	17.39	36.36	12.94	14.93	77.63	53.49
2003-04	5.43	3.08	17.12	49.41	21.18	17.58	78.11	55.65
2004-05	6.85	7.29	13.27	43.18	13.64	15.84	78.05	57.04

2005-06	11.11	7.14	19.17	43.18	9.49	17.01	78.01	59.95
2006-07	7.50	6.84	20.13	66.48	11.72	18.94	79.78	63.65
2007-08	7.08	3.34	22.06	63.34	6.24	15.64	78.83	61.42
2008-09	10.00	49.84	21.45	95.45	12.23	32.98	79.92	68.22
2009-10	9.95	24.85	16.98	72.60	13.17	23.56	78.52	64.07
2010-11	4.19	45.47	17.38	96.84	8.68	32.12	76.93	64.86
2011-12	3.58	44.94	20.59	62.50	12.73	29.75	78.06	65.73

Note: All figures are proportions of their total production.

Source: Electronics and Software Export Promotion Council, Statistical Year book, different Year

RECOMMENDATIONS

1. Since technology is critical to the sector, to develop electronics and IT hardware products built on latest available technology there needs to be continuous R& D leading to innovation and product differentiation based on technology. The right mix of unique and innovative products that are acceptable to the consumers is critical to sustain and augment profits in the long run. Government should strengthen Research and Development in Electronic Hardware sector especially the applied research like product development through special grants to leading Research Institutes /Universities and Technical Institutes like IITs.
2. Till now India mostly depended on low value goods and services. It is time to move towards high value goods and services by using IT.
3. Availability of quality manpower is declining and there is shortage of skilled and trained personnel. The attrition rate is also high as the industry salary packages are not competitive with ITES sector. The current educational system in the IT sector is skewed towards Software rather than Hardware. Curriculum of ITIs should be redesigned and continuously updated to meet the changing requirement of Hardware & IT industry. Industry Associations may be involved in developing course curriculum and in plant training be made compulsory part of course curriculum. Industry/corporate bodies may be

encouraged through tax benefits/ payment of management fee to adopt government run ITI or diploma colleges for effective and efficient management.

4. The manufactures of IT hardware and Electronics products are generally dependent on imported raw material. Weak supply chain network and lack of vendor support also affects the quality, productivity and competitiveness of the products. Government should ensure hassle free import of raw material and components by streamlining the import policy and systems and through simplification of import procedures.
5. It is recommended that the government should promote modernization of units through a special scheme with fiscal incentives and minimum import duties. Depending on the needs and performance of existing manufacturers, special loans may be granted for technology up gradation, infrastructure building or expansion of business.

Conclusion:

The main emphasis of this paper has been to stress that IT has some special characteristics, both in theory and practice, which make it a promising engine of broad based growth in India. Special subsidies or export incentives are likely to be inefficient ways of stimulating the growth of the IT sector, or of positive spillovers for the rest of the economy. Similarly, special central government initiatives to increase the availability of IT training and related education are also likely to represent a mistargeting of scarce government resources. The same structure applies, to some extent, to State government policies to encourage the IT sector. State governments also may be better off removing general restrictions to doing business, as well as providing an enabling institutional infrastructure (appropriate laws and regulations), rather than attempting to target the IT sector through a form of industrial policy.

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