

## *Survey on Computer Software & Information Technology Services Exports: 2008-09\**

*In continuation of the annual software export survey 2007-08, the Reserve Bank of India (RBI) conducted the annual comprehensive survey on software and Information Technology services exports during 2008-09 covering 6,400 companies for compiling data on computer services exports as well as exports of Information Technology Enabled Services (ITES)/ Business Process Outsourcing (BPO). The survey also collected the software services trade data as per the mode of supply, introduced by General Agreement on Trade in Services (GATS). Further, in order to estimate the quarterly software services exports of India, RBI also introduced a quarterly sample survey for the reference quarters April-June (Q1), July-September (Q2) and October-December (Q3) 2008.*

### **Highlights**

- Total computer services and ITES/BPO services exports of India during 2008-09 was estimated at Rs.1,67,240 crore (US\$ 36.4 billion), of which computer services exports was Rs.1,21,956 crore (US\$ 26.6 billion).
- Quarterly survey results revealed that export from India on account of software services in Q1 was 21 per cent of total global software services exports in 2008-09, which has increased to 25 per cent and 26 per cent in Q2 and Q3, respectively. The share of software export in the last quarter of 2008-09 was the highest at 28 per cent.

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- Of the total software exports (Computer and ITES/BPO services), around 72 per cent was through off-site services, while onsite software exports accounted for 28 per cent.
- United States of America remained the major destination for software exports accounting for 60 per cent share in total software exports. Among the European countries which contributed 27 per cent in India's total software exports, the United Kingdom (UK) alone accounted for 14 per cent.
- US Dollar was the major currency for invoicing software exports, with a share of 75 per cent in total software exports. Pound Sterling and Euro accounted for 13 and 6 per cent, respectively.

### Introduction

Pursuant to the recommendation of National Statistical Commission's report [NSC (2001)] and subsequently as recommended by the Technical Group on Computer Services Exports (TGCSE), the Reserve Bank introduced a quarterly sample surveys on Software and ITES/BPO Services Exports for the quarters April-June, July-September and October-December 2008 and also conducted the third comprehensive annual survey for the period 2008-09. The second annual software export survey was conducted with reference period 2007-08. The survey collected the information on the computer services exports, as defined in Balance of Payments Manual [BPM5 (1993)] and Manual on Statistics of International Trade in Services [MSITS (2002)] as well as on ITES/BPO services exports. The exports data as per the modes of supply, *i.e.*, cross

border supply, consumption abroad, commercial presence and presence of natural persons, as defined in MSITS (2002), were also collected in the survey. The distinctive features of the Computer services as defined in BPM5 (1993), MSITS (2002) and BPM6 (2008) are indicated in Annex-I. Format of survey schedules for annual and quarterly sample surveys are given in Annex-II (A) and II (B) while the concepts, definitions and coverage are presented in Annex-III. The estimation procedure for estimating the software exports of non-responded companies is detailed in Annex-IV.

### Survey Results

The survey results presented below are based on the data collected through the quarterly sample surveys for the quarters April-June, July-September and October-December 2008 and also a comprehensive annual survey for the period 2008-09. The data are collected as per BPM5 guidelines. For the quarterly sample survey, 200 companies were selected, of which 187 companies responded. The sample of 200 companies covered all 93 large companies (software export size of Rs.100 crore and above) and 107 small companies (export size of less than Rs.100 crore). The sample of small companies was selected using simple random sampling from the frame of small companies. It was ensured that selected companies covered all the four major groups of activities, *viz.*, IT services, BPO services, engineering services and software product development services. The large companies covered almost 80 per cent of total software export business in 2007-08. For the comprehensive annual survey for the reference period 2008-09, a total of 916

companies responded to the survey. Exports done by the non-respondent companies have been estimated using median exports. For estimating the quarterly software services exports, observed sample proportions of quarterly software services exports, based on the quarterly survey were used. Besides survey, the Reserve Bank also collects information on the non-physical software exports (offsite), as declared on Softex forms, from Indian companies. Reconciliation of survey estimates with NASSCOM and Softex data is given as Box item.

### *Estimate of Software Services Exports from India during 2008-09*

Estimated software and IT services exports were categorised in two components: (i) computer services and (ii) ITES/BPO Services. Total software services exports from India during 2008-09 registered a growth of 19 per cent to Rs.1,67,240 crore from Rs.1,40,200 crore during 2007-08. Of the total software exports during 2008-09, computer services export were at Rs.1,21,956 crore,

while balance Rs.45,284 crore was on account of ITES/BPO services exports (Table 1). Computer services exports registered 14 per cent growth while ITES/BPO services exports registered 38 per cent growth during 2008-09 over the previous year.

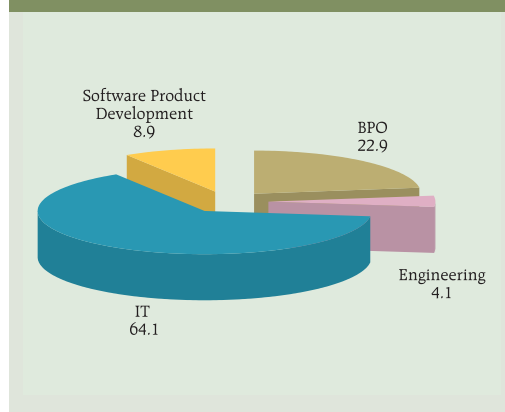
The share of computer services in the total software exports declined to 73 per cent in 2008-09 from 77 per cent in 2007-08, while ITES/BPO services accounted for 27 per cent in the total software exports during 2008-09 as against 23 per cent in 2007-08. The decline in share of computer services exports had to be viewed in relation to the slowdown in global economic growth in 2008-09.

Under Computer services, the contribution of IT services exports constituted the major part which accounted for 64 per cent in total software exports while the share of Software product development was at 9 per cent. BPO services exports accounted for 23 per cent share while Engineering services had 4 per cent share in total software exports.

**Table 1: Software Services Exports from India during 2008-09**

Activity / Period	2007-08	2008-09					Annual Growth (%)
		Q1	Q2	Q3	Q4	Total	
1	2	3	4	5	6	7	8
<b>Computer Services</b>	<b>1,07,438</b>	<b>28,726</b>	<b>33,064</b>	<b>34,985</b>	<b>25,181</b>	<b>1,21,956</b>	<b>13.5</b>
of which IT Services	94,209	27,828	32,036	34,076	13,103	1,07,043	13.6
Software Product Development	13,229	898	1,028	909	12,078	14,913	12.7
<b>ITES/BPO Services</b>	<b>32,762</b>	<b>7,181</b>	<b>8,060</b>	<b>8,313</b>	<b>21,730</b>	<b>45,284</b>	<b>38.2</b>
of which BPO Services	28,268	6,068	6,662	6,841	18,773	38,344	35.6
Engineering Services	4,494	1,113	1,398	1,472	2,957	6,940	54.4
<b>Total Software Exports</b>	<b>1,40,200</b>	<b>35,907</b>	<b>41,124</b>	<b>43,298</b>	<b>46,911</b>	<b>1,67,240</b>	<b>19.3</b>

Chart 1: Activity-wise Software Exports of India in 2008-09 (%)



#### *Comparison of quarterly survey estimates with BoP Statistics*

The Reserve Bank uses the software exports data published by the NASSCOM as the controlling figure while releasing the BoP statistics. However, the data published by NASSCOM are based on the global software business of Indian companies, *i.e.* including the software business done by the Indian subsidiaries abroad. In order to compare the quarterly survey estimates of software exports with BoP data released by the Reserve Bank, the software business done by the Indian subsidiaries abroad was added to the total software exports of India during 2008-09 and distributed over the four quarters in the proportions as observed in the quarterly sample survey estimates. Software exports based on survey estimates during the first three quarters were lower than the corresponding figures published in BoP statistics, while the fourth quarter (Q4: January-March 2009) accounted for about 28 per cent share in global software business of India during 2008-09 as against 25 per cent as published in BoP statistics (Table 2).

Table 2: Quarterly Software Exports 2008-09: Survey Vs BoP Statistics

2008-09	Global software exports based on Survey		Software exports as per BoP Statistics	
	Rs. crore	Share (%)	Rs. crore	Share (%)
1	2	3	4	5
Q1	44,566	21.4	50,324	23.7
Q2	51,042	24.6	53,061	25.0
Q3	53,741	25.9	54,975	25.9
Q4	58,222	28.1	53,882	25.4
<b>Total</b>	<b>2,07,572</b>	<b>100.0</b>	<b>2,12,242</b>	<b>100.0</b>

#### *Activity-wise Distribution of ITES/BPO Services Exports*

Software exports through ITES/BPO services were compiled based on the classification given by Department of Information Technology of the Government of India [DIT(GoI(2003))]. Of the total ITES/BPO services exports during 2008-09, BPO services registered a growth of 36 per cent while Engineering Services increased by 54 per cent over the previous year. Among the BPO services, the share of Customer Interaction Services declined to 11 per cent during 2008-09 from 18 per cent in 2007-08. Also, the share of Medical Transcription Services decreased to 12 per cent during 2008-09 from 13 per cent in the previous year. Other BPO services including Procurement and Logistics Services, Animation, Gaming, Document Management Services, *etc.*, which contributed about 40 per cent of the total BPO services exports, increased by 68 per cent in 2008-09 over the previous year (Table 3).

Within the Engineering Services exports, Product Design Engineering Services accounted for 6 per cent share while Embedded Solutions Services had 3 per cent share.

Table 3: Activity-wise Distribution of ITES/BPO Services Exports

Activity/Period	2007-08			2008-09			Annual growth (%)
	Rs. crore	US\$ billion*	Share (%)	Rs. crore	US\$ billion*	Share (%)	
1	2	3	4	5	6	7	8
<b>I. BPO Services</b>	<b>28,268</b>	<b>7.0</b>	<b>86.3</b>	<b>38,344</b>	<b>8.4</b>	<b>84.7</b>	<b>35.6</b>
Customer Interaction Services	5,993	1.5	18.3	4,828	1.1	10.7	-19.4
Finance and Accounting, Auditing, Book Keeping and Tax Consulting Services	2,912	0.7	8.9	3,754	0.8	8.3	28.9
HR Administration	763	0.2	2.3	1,074	0.2	2.4	40.8
Legal Services (including IP Management Services)	594	0.1	1.8	537	0.1	1.2	-9.6
Business and Corporate Research	1,159	0.3	3.5	1,610	0.4	3.6	38.9
Medical Transcription	4,268	1.1	13.0	5,364	1.2	11.8	25.7
Content Development and Management and Publishing	1,753	0.4	5.4	2,949	0.6	6.5	68.2
Any other service	10,826	2.7	33.3	18,228	4.0	40.2	68.4
<b>II. Engineering Services</b>	<b>4,494</b>	<b>1.1</b>	<b>13.7</b>	<b>6,940</b>	<b>1.5</b>	<b>15.3</b>	<b>54.4</b>
Embedded Solutions	1,177	0.3	3.6	1,354	0.3	3.0	15.0
Product Design Engineering (mechanical, electronics excluding software)	2,031	0.5	6.2	2,708	0.6	6.0	33.3
Architectural and Other Technical Services	427	0.1	1.3	508	0.1	1.1	19.0
Any other service	854	0.2	2.6	2,370	0.5	5.2	177.5
<b>Total ITES/BPO Services</b>	<b>32,762</b>	<b>8.1</b>	<b>100.0</b>	<b>45,284</b>	<b>9.9</b>	<b>100.0</b>	<b>38.2</b>

\* Using annual average Rupee/Dollar exchange rate as published in Handbook of Statistics on Indian Economy.

### *Type of Organisation-wise Software Services Exports*

Of the total respondent companies, 81 per cent of the companies were Private limited companies contributing 35 per cent in total software exports of India during 2008-09 as compared to 39 per cent share during 2007-08. On the other hand, the share of public limited companies, 9 per cent in terms of number of responded companies, increased from 59 per cent in 2007-08 to 62 per cent during 2008-09. The software exports by public limited companies recorded a growth of 26 per cent while private limited companies registered

6 per cent growth on year-on-year basis. Software exports by other companies increased by 95 per cent during 2008-09 over the previous year, however, their contribution to total software exports is very low (Table 4). The impact of the slowdown in global economy on software services exports in 2008-09 was more visible on the private limited companies in comparison to the public limited companies.

### *Country-wise distribution of Software Services Exports*

The United States of America continued as the major destination for software

Table 4: Organisation-wise Distribution of Software Services Exports

Type of Organisation	2007-08				2008-09				Annual growth (%)
	No of Companies (%)	Rs. crore	US\$ billion	Share (%)	No of Companies (%)	Rs. crore	US\$ billion	Share (%)	
1	2	3	4	5	6	7	8	9	10
Private Ltd Companies	80.9	55,017	13.7	39.2	81.9	58,228	12.7	34.8	5.8
Public Ltd Companies	9.2	82,429	20.4	58.8	9.2	103,642	22.5	62.0	25.7
Others	9.9	2,754	0.7	2.0	9.0	53.70	1.2	3.2	95.0
<b>Total</b>	<b>100.0</b>	<b>1,40,200</b>	<b>34.8</b>	<b>100.0</b>	<b>100.0</b>	<b>1,67,240</b>	<b>36.4</b>	<b>100.0</b>	<b>19.3</b>

services exports, though its share in total software services exports of India declined to 60 per cent in 2008-09, from 63 per cent in 2007-08. Share of software services exports to European countries remained at the same level of 2007-08, *i.e.*, 27 per cent of total software exports in 2008-09, of which software exports to the United Kingdom was at 14 per cent. The share of Asian countries in total software exports increased to 5 per cent during 2008-09 from 4 per cent in 2007-08 (Table 5).

Software exports to the USA & Canada together increased by 15 per cent in 2008-09 over the previous year while software exports to European countries recorded 21

per cent growth on a year-on-year basis. Though lower in terms of share, software exports to Asian countries increased by 45 per cent in 2008-09 over the previous year, of which East and West Asia showed increasing trend reflecting diversification while software exports to South Asia declined.

#### *Invoicing Pattern of Software Services Exports*

US Dollar (USD) was the major currency of invoicing in 2007-08 and 2008-09 and maintained its three-fourth share in total software exports. The share of Pound Sterling (GBP) in terms of invoicing the software

Table 5: Destination of Software Services Exports

Country	2007-08			2008-09			Annual growth (%)
	Rs. crore	US\$ billion	Share (%)	Rs. crore	US\$ billion	Share (%)	
1	2	3	4	5	6	7	8
USA & Canada	89,702	22.3	64.0	1,02,700	22.3	61.5	14.5
Europe	37,289	9.3	26.6	45,131	9.8	27.0	21.0
of which UK	19,614	4.9	14.0	23,211	5.0	13.9	18.3
Asia	5,673	1.4	4.0	8,241	1.9	5.0	45.3
of which East Asia	4,279	1.0	3.0	6,857	1.5	4.1	60.2
West Asia	702	0.2	0.5	1,261	0.2	0.8	79.6
South Asia	692	0.2	0.5	123	.02	0.1	-82.2
Australia & New Zealand	2,136	0.5	1.5	2,290	0.5	1.4	7.2
Others countries	5,401	1.3	3.8	8,879	1.9	5.3	64.4
<b>Total</b>	<b>1,40,200</b>	<b>34.8</b>	<b>100.0</b>	<b>1,67,240</b>	<b>36.4</b>	<b>100.0</b>	<b>19.3</b>



Chart 2: Country-wise Distribution of Software Exports in 2008-09 (%)

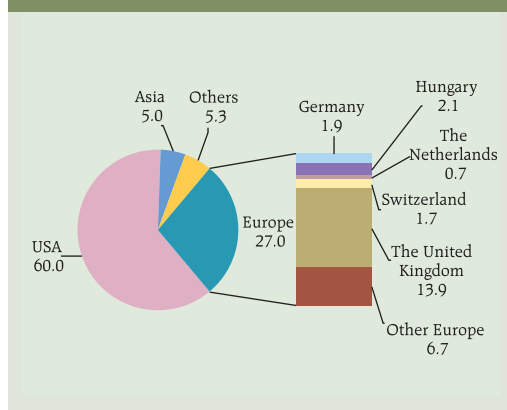
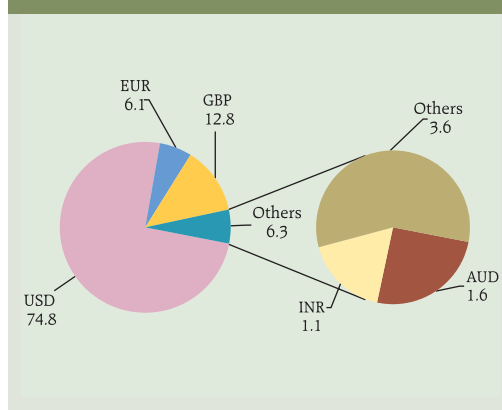


Chart 3: Currency of Invoice-wise Software Exports 2008-09 (%)



exports remained at 13 per cent in both the years while the share of Euro declined from 6.4 per cent in 2007-08 to 6.1 per cent in 2008-09. The software exports invoicing in INR was only at 1 per cent (Table 6).

The software exports invoicing in terms of USD increased by 18 per cent on a year-on-year basis while the corresponding annual growth in terms of GBP and Euro were 20 per cent and 14 per cent, respectively.

#### *Software Services Exports – Type of Service*

The offsite software exports accounted for 72 per cent of the total software services

exports in 2008-09, as compared to 75 per cent in 2007-08. The share of onsite software exports accordingly increased to 28 per cent in 2008-09 as against 25 per cent in the previous year (Table 7). The growth in onsite services exports was significantly higher at 30 per cent compared to 16 per cent increase in offsite services exports in 2008-09 over the year 2007-08.

#### *Size-wise classification of Software Services Exports*

Based on the exports size, the survey data revealed that 89 per cent of the companies were having exports size below Rs.100 crore (small companies) with a share

Table 6: Currency Composition of Invoice- Software Services Exports

Currency	2007-08			2008-09			Annual growth (%)
	Rs. crore	US\$ billion	Share (%)	Rs. crore	US\$ billion	Share (%)	
1	2	3	4	5	6	7	8
USD	1,05,665	26.2	75.4	1,25,056	27.2	74.8	18.4
Euro	8,913	2.3	6.4	10,182	2.2	6.1	14.2
GBP	17,970	4.5	12.8	21,480	4.7	12.8	19.5
AUD	2,518	0.6	1.8	2,642	0.6	1.6	4.9
INR	1,774	0.4	1.3	1,831	0.4	1.1	3.2
Others	3,360	0.8	2.3	6,049	1.3	3.6	80.1
<b>Total</b>	<b>1,40,200</b>	<b>34.8</b>	<b>100.0</b>	<b>1,67,240</b>	<b>36.4</b>	<b>100.0</b>	<b>19.3</b>

Table 7: Type of Services-wise Software Services Exports

Currency	2007-08			2008-09			Annual growth (%)
	Rs. crore	US\$ billion	Share (%)	Rs. crore	US\$ billion	Share (%)	
1	2	3	4	5	6	7	8
Onsite	35,673	8.9	25.5	46,237	10.1	27.6	29.6
Offsite	1,04,527	25.9	74.5	1,21,003	26.3	72.4	15.8
<b>Total</b>	<b>1,40,200</b>	<b>34.8</b>	<b>100.0</b>	<b>1,67,240</b>	<b>36.4</b>	<b>100.0</b>	<b>19.3</b>

of only about 7 per cent in the total software exports of India during 2008-09. On the other hand, 11 per cent of the companies, in terms of number, were large companies with exports size Rs.100 crore and above, accounting for almost 93 per cent of the total software exports. Of the total software services exports done by small companies, almost 95 to 96 per cent were provided through offsite mode, while onsite and offsite services provided by Large companies were 29 per cent and 71 per cent, respectively, of their total software exports.

On classifying the exports size as per the destination of exports, it revealed that small Companies had higher access (67 to 75 per cent) in United States of America & Canada together, as compared to Large Companies which had 61 per cent of exports to United States of America & Canada together. However, Large Companies had greater access to European countries as compared with Small Companies (Table 8).

### *Software Business as per Modes of Supply*

As mentioned in MSITS (2002) of GATS, the International Trade in Services includes the (i) transactions between resident and non-resident covering Mode-1, Mode-2 and Mode-4, as defined earlier and (ii) services provided locally by the affiliates established abroad *i.e.*, Mode-3. However, as per the Balance of Payments Manual, foreign affiliates established abroad are treated as the domestic entities in the host economy and, hence, the services delivered by them are not considered as the exports of the home country. To this extent, data on services exports in BoP will differ from those as per Foreign Affiliates Trade Statistics. The present survey collected the software services trade data on all four modes of supply.

As per the International Trade in Services of GATS, the total international trade in software services by India stood at

Table 8: Software Services Exports in 2008-09: Classified by Export Size &amp; Other Characteristics

Exports size (Rs. crore)	Number of companies (%)	Share in Exports (%)	Destination of Exports (%)			Type of Exports (%)	
			USA & Canada	European Countries	Other Countries	Onsite	Offsite
1	2	3	4	5	6	7	8
< 1	23.8	0.1	70.8	16.0	13.2	4.6	95.4
1 - 10	40.4	1.3	67.2	19.4	13.4	3.7	96.3
10 - 100	24.9	5.6	74.6	15.7	9.7	4.1	95.9
>=100	10.9	93.0	60.5	27.8	11.7	29.4	70.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>61.4</b>	<b>27.0</b>	<b>11.6</b>	<b>27.6</b>	<b>72.4</b>



**Box: Comparison of Survey Results with NASSCOM and Softex Data**

The software exports of India as published in BoP statistics by the Reserve Bank of India is based on the NASSCOM information. In addition, the Reserve Bank also collects information about non-physical offsite software exports data through SOFTEX forms. The software exports data released by the NASSCOM is based on the global software business of Indian software companies, *i.e.*, software exports of Indian companies together with the software exports of their overseas subsidiaries. The Reserve Bank has conducted an annual survey on Software & IT Services Exports during 2008-09 to collect the information about the software & ITES/BPO services exports. In order to make the survey result comparable with NASSCOM data, the software business of overseas subsidiaries of Indian companies have been added to the estimated software exports of India, based on the survey. The comparison of software exports of India based on the survey results has been made with the data released by NASSCOM for 2008-09 and also with the data received through Softex forms.

Based on the survey, software exports of India in 2008-09 were estimated at Rs.1,67,240 crore

(US\$ 36.4 billion). Further, software business done by the Indian subsidiaries abroad in 2008-09 was to the tune of Rs.40,333 crore (US\$ 8.8 billion). The software business done by overseas subsidiaries of Indian software companies accounted for 19 per cent of global software business through the survey in 2008-09 compared to 15 per cent in 2007-08. The global software business of India based on the survey was Rs.2,07,573 crore (US\$ 45.2 billion), as against Rs.2,12,242 crore (US\$ 46.3 billion) published by NASSCOM.

Further, the non-physical (offsite) software exports of India covering only the offsite exports, as declared on Softex forms by Indian companies, during 2008-09 was Rs.1,27,555 crore. Adding the onsite software exports of Rs.46,237 crore, as reported in the survey, the total software exports during 2008-09 turn out to be Rs.1,73,792 crore, which was 4 per cent higher than the estimated software exports of India based on the survey result. The survey results are comparable with the software exports data released by NASSCOM and also with the software exports data collected through Softex forms by the Reserve Bank.

**Reconciliation of Software Exports of India in 2008-09**

(Rs.crore)

Software exports as per NASSCOM (Global business)	Software Exports based on annual survey			Software Exports based on annual survey and Softex data		
	Indian companies	Subsidiaries abroad	Global business	Offsite Non-physical software exports based on Softex	Onsite software exports based on survey	Total Software Exports of India
1	2	3	4=2+3	5	6	7=5+6
2,12,242	1,67,240	40,333	2,07,573	1,27,555	46,237	1,73,792

Rs.2,00,935 crore. Mode-1 (cross-border supply) accounted for 56 per cent of total international trade in software services by India, while Mode-4 (presence of natural person) and Mode-3 (commercial presence) had 27 and 17 per cent share, respectively, and the lowest being Mode-2 (consumption abroad) with a share of 0.1 per cent. Small Companies delivered the software services mainly through Mode-1, covering about 83 to 87 per cent of their software exports. For Large Companies Mode-1 accounted for 54

per cent while Mode-4 accounted for 28 per cent share in corresponding international trade in software services by India (Table 9).

*Software business done by Subsidiaries/Associates Abroad*

The survey collected the information about the software business done by subsidiaries/associates of Indian software companies abroad (foreign affiliates) in respect of software business done in host country, *i.e.*, locally, to India and to other

Table 9: International Trade in Software Services

Exports Size (Rs. crore)	No. of Companies (%)	Amount (Rs crore)					Per cent Share in Total			
		Mode 1	Mode 2	Mode 3	Mode 4	Total	Mode 1	Mode 2	Mode 3	Mode 4
1	2	3	4	5	6	7	8	9	10	11
< 1	23.8	168	0	28	6	202	83.2	0	13.9	3.0
1 - 10	40.4	2,055	21	198	85	2,359	87.1	0.9	8.4	3.6
10 - 100	24.9	8,876	0	1,037	510	10,423	85.2	0	9.9	4.9
>= 100	10.9	1,02,077	128	32,432	53,317	1,87,954	54.3	0.1	17.3	28.4
ALL Companies	100.0	1,13,174	149	33,695	53,917	2,00,935	56.3	0.1	16.8	26.8

Mode 1: Cross Border Supply.  
Mode 3: Commercial Presence.

Mode 2: Consumption Abroad.  
Mode 4: Presence of Natural Persons.

countries, for the purpose of Foreign Affiliates Trade in Services (FATS). It was observed that total software business done by the Indian – owned foreign affiliates during 2008-09 was at Rs.40,333 crore (excluding the services made available to India) (Table 10). Based on the type of services, Indian companies were classified into four major categories *viz.*: IT Services, Software Product Development, BPO and Engineering Services. Companies having combination of these services were classified under 'Others'. The software services provided by the Indian – owned foreign affiliates were mainly in the respective host country. The foreign affiliates of those Indian software companies which were categorised

as 'Others' *i.e.* providing mix of services, were the major source for generating the software business outside India. The foreign affiliates of Indian software companies engaged in purely 'Engineering Services' had negligible share in the total software business provided by the foreign affiliates.

The USA had the maximum number of Indian owned affiliates accounting for 31 per cent of the total number of Indian – owned foreign affiliates which contributed about 61 per cent of business done by the foreign affiliates. The United Kingdom and Canada accounted for 9 per cent and 5 per cent share, respectively, in total business of the foreign affiliates (Table 11).

Table 10: Distribution of Software Business by Foreign Affiliates as per Activity of Indian companies in 2008-09

Activity	Number of Foreign Affiliates (%)	Software business done by foreign affiliates		
		(Rs. crore)		
		Locally	To India	Other Countries
1	2	3	4	5
IT Services	14.8	1,216	84	13
Software Product Development	5.1	165	33	13
BPO Services	10.9	382	36	2,853
Engineering Services	2.4	4	20	28
Others	66.8	31,928	976	3,731
<b>Total</b>	<b>100.0</b>	<b>33,695</b>	<b>1,149</b>	<b>6,638</b>

Table 11: Software Business by Foreign Affiliates as per Country of Location in 2008-09

Activity	Number of Foreign Affiliates (%)	Software business done by foreign affiliates		
		(Rs. crore)		
		Locally	To India	Other Countries
1	2	3	4	5
United States	30.8	23,678	602	1,009
The United Kingdom	13.6	3,325	156	193
Canada	2.7	110	5	1,987
Germany	5.1	1,426	18	12
The Netherlands	2.2	499	16	670
Australia	2.4	972	0	0
Singapore	8.5	951	241	363
Others	34.7	2,734	111	2,403
<b>Total</b>	<b>100.0</b>	<b>33,695</b>	<b>1,149</b>	<b>6,638</b>

### Summary

This article provides the estimates for the 'Computer Services Exports' as well as 'ITES/ BPO Services Exports' of India for the period 2008-09, based on the annual comprehensive survey on software and IT services exports conducted by the Reserve Bank. The total software and IT services exports of India in 2008-09 was estimated at Rs.1,67,240 crore (US\$ 36.4 billion), of which computer services exports, as defined in BPM5, was at Rs.1,21,956 crore (US\$ 26.5 billion) and ITES/BPO services exports was at Rs.45,284 crore (US\$ 9.9 billion). The quarterly software export survey revealed that 21 per cent business accrued in Q1 of 2008-09, while 25 per cent and 26 per cent of total software exports accrued in Q2 and Q3, respectively. The last quarter of 2008-09, i.e., Q4 accounted for 28 per cent of software export business. The data on software services trade were also collected according to Mode of Supply, as per the MSITS [2002] of GATS. The international trade in software services exports covering all modes of supply as per MSITS [2002] has been estimated at Rs.2,00,935 crore (US\$ 43.8 billion).

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7. Reserve Bank of India (2009): 'Survey on Computer Software & Information Technology Services Exports: 2007-08', *Reserve Bank of India Bulletin*, Mumbai, September.

<b>Annex-I</b>	
<b>Computer Services as Per BPM5 [1993], BPM6 [2008] <i>vis-s-vis</i> MSITS [2002]</b>	
As per BPM5 [1993] of IMF	As per BPM6 [2008] and MSITS [2002]
The Computer services includes the following:	Computer services include hardware and software related services and data-processing services, as mentioned below:
1. Data base, such as development, storage and online time series.	1. Hardware and software consultancy and implementation services.
2. Data processing - including tabulation, provision of processing services on time-sharing or specific (hourly) basis and Management of facilities of others on a continuing basis.	2. Maintenance and repair of computer peripheral equipment.
3. Hardware consultancy.	3. Disaster recovery services, provision of advice, and assistance on matter related to the management of computer resources.
4. Software implementation - including design, development and programming of customised systems.	4. Analysis, design and programming of systems ready to use (including web page development and design), and technical consultancy related to software.
5. Maintenance and repair of computer peripheral equipment.	5. Development, production, supply and documentation of customised software, including the operating systems made on order for specific users.
	6. System maintenance and other support services such as training provided as a part of consultancy.
	7. Data processing services such as data entry, tabulation and processing on a timesharing basis.
	8. Web page hosting services ( <i>i.e.</i> the provision of server space on the internet to host the clients' web pages.
	9. Computer facilities management.

## Annex-II(A)

CONFIDENTIAL

RESERVE BANK OF INDIA  
Department of Statistics and Information Management  
(Balance of Payments Statistics Division)Software and Information Technology (IT) Services Exports: Survey Schedule  
Reference Period : April 2008 to March 2009 (Annual)

## PART-A: Profile of the Company

<b>1. Name and address of the Company</b>	
Name of the Company	
Registered Address	
City	
State	
Pin Code	
<b>2. Contact Details</b>	
(i) Name in Full	
(ii) Designation	
(iii) Tel. No.	
(iv) Fax. No.	
(v) Email:	
<b>3. Business Activity</b>	
(According to the principal source of operating revenue)	
Please provide approximate percentage share of various business activities, describing your company, in total business (A+B+C+D)	
<b>Business Activity</b>	<b>% Share</b>
<b>A. IT Services</b>	
(i) Hardware and software consultancy and implementation services	
(ii) Maintenance and repair of computers and peripheral equipment	
(iii) Data recovery services, provision of advice, and assistance on matters related to the management of computer resources	
(iv) Analysis, design and programming of systems ready to use (including web page development and design), and technical consultancy related to software	
(v) Development, production, supply and documentation of customised software, including operating systems made on order for specific users	
(vi) Systems maintenance and other support services such as training provided as part of consultancy;	
(vii) Data processing services such as data entry, tabulation, and processing on a timesharing basis;	

<b>Annex-II(A) (Contd.)</b>	
(viii) Web page hosting services ( <i>i.e.</i> , the provision of server space on the internet to host clients' web pages)	
(ix) Computer facilities management	
(x) Non-physical exports of packaged software	
(xi) Any other service (please specify)	
<b>Total (IT Services)</b>	0.0
<b>B. ITES/BPO</b>	
(i) Customer interaction services	
(ii) Finance and Accounting, auditing, book keeping and tax consulting services	
(iii) HR Administration	
(iv) Procurements and logistics	
(v) Legal services (including IP management services)	
(vi) Business and corporate research	
(vii) Animation	
(viii) Gaming	
(ix) Medical transcription	
(x) Document Management	
(xi) Content development and management and publishing	
(xii) Pharmaceuticals and biotechnology	
(xiii) Any other service (please specify)	
<b>Total (ITES/BPO)</b>	0.0
<b>C. Engineering Services</b>	
(i) Embedded Solutions	
(ii) Product Design Engineering (mechanical, electronics excluding software)	
(iii) Industrial automation and enterprise asset management	
(iv) Architectural and other technical services	
(v) Any other Engineering service (please specify)	
<b>Total (Engineering Services)</b>	0.0
<b>D. Software Products</b>	
(i) Software products	
(ii) Own software products license revenues	
(iii) Resale of software	
(iv) Offshore Product Development	
(v) Any other Software Product related service (please specify)	
<b>Total (Software Products)</b>	0.0
<b>E. Total (A+B+C+D)</b>	0.0
<b>Total (E) Should be = 100</b>	
<b>4. Form of Organisation</b> (Please select the organisation type)	
<b>Organisation type</b>	<b>Please Enter Organisation Type</b>



## Annex-II(A) (Contd.)

PART -B: Software and IT Exports		
<b>5. Information on Software and IT Services Exports</b>		
(a) <u>Exports - Major Activities</u> : Total Invoice value in Rupees [ <b>including</b> billing to subsidiary(s) associate(s) abroad ] during the reference period according to major activities		
Exports - Major Activity Group	Invoice Value (Rupees)	
(i) IT Services		
(ii) ITES/BPO		
(iii) Engineering Services		
(iv) Software Products		
<b>Total (i + ii + iii + iv)</b>		0
Of which, Billing to subsidiary(s)/associate(s) abroad		
(b) <u>Exports- Major Currencies</u> : Invoice value in terms of actual currency of invoice and in Rupees [ <b>including</b> billing to subsidiary(s)/ associate(s) abroad] during the reference period according to major currencies		
Exports - Major Currencies	Invoice Value	
	Amount in Actual Currency	Amount in Rupees
(i) US \$		
(ii) Euro		
(iii) Pound Sterling		
(iv) Japanese Yen		
(v) Canadian Dollar		
(vi) Australian Dollar		
(vii) Indian Rupee		
(viii) Others (converted in Indian rupees)		
<b>Total [(i) to (viii)]</b>		0
(c) <u>Exports- Type of Service</u> : Total Invoice value in Rupees [ <b>including</b> billing to subsidiary(s)/ associate(s) abroad] during the reference period as per type export service		
Exports - Type of Service	Amount (Rupees)	
(i) On-site services		
(ii) Off-shore services in non-physical form ( <i>i.e.</i> , exports through data communication links <i>etc.</i> )		
(iii) Off-shore services in physical form		
<b>Total (i + ii + iii)</b>		0
(d) <u>Exports - Major Areas</u> : Total Invoice value in Rupees [ <b>including</b> billing to subsidiary(s)/ associate(s) abroad] during the reference period to major countries/ regional groups		
Exports - Regional Groups	Amount (Rupees)	
(i) USA		
(ii) Canada		
(iii-a) Germany		

<b>Annex-II(A) (Contd.)</b>	
(iii-b) Hungary	
(iii-c) The Netherlands	
(iii-d) Switzerland	
(iii-e) United Kingdom	
(iii-z) Other European Countries	
(iv-a) Hong Kong	
(iv-b) Japan	
(iv-c) Singapore	
(iv-z) Other East Asian Countries	
(v) West Asia	
(vi) South Asia	
(vii) Australia	
(viii) New Zealand	
(ix) Latin America	
(x) Others	
<b>Total (i + ii + ..... + ix + x)</b>	0
<b>6. Exports - Modes of Supply</b>	
Total invoice on software and IT services exports as per the Modes of Supply during the reference period	
<b>Exports - Modes of Supply</b>	<b>Amount (Rupees)</b>
(i) Services provided/rendered to foreign entities/persons from Indian office (Cross border supply)	
(ii) Services provided/rendered to foreign entities/persons while they are on visit to India	
(iii) On-site services provided by deputing employees abroad	
<b>Total</b>	0
<b>7. Exports Proceeds - Receipt, Expenditure and Held Abroad</b>	
Information on amount received, spent and held abroad [ <b>including</b> billing to subsidiary(s)/ associate(s) abroad] on account of software and IT exports during the reference period	
<b>Exports Proceeds - Receipt, Expenditure and Held Abroad</b>	<b>Amount (Rupees)</b>
(i) Amount received from abroad during the reference period	
(ii) Total amount paid to employees abroad by the Indian company	
(iii) Total amount spent on office expenses <i>etc.</i> abroad (excluding amount paid to employees abroad) by the Indian company	
(iv) Total amount held abroad at the beginning of the reference period by the Indian company	
(v) Change in amount held abroad during the reference period (Increase +, Decrease -)	

## Annex-II(A) (Concl.d.)

**PART -C: Employment Details****8. Information on Number of Employees**

Employment	Indian Citizen	Foreigner (Citizens of other countries)	Total
	(1)	(2)	(1+2)
a) Indian Company			0
b) Subsidiary(s)/Associate(s) abroad			0
<b>Total (a+b)</b>	0	0	0

**PART -D: Subsidiary/ Associate Abroad****9. Information on subsidiary(s)/ associate(s) abroad**

If your company owns any subsidiary/associate, please give number of subsidiaries/ associates abroad and provide the following information for each subsidiary(s)/ associate(s) separately.

<b>Number of Subsidiaries/ Associates Abroad</b>	0
--	---

Subsidiary(s)/ Associate(s)'s		Holding by your company (in %)	Period of operation of Subsidiary/ Associate		Total software/IT services rendered by the Subsidiary(s)/ Associate(s) during the reference period (in Rupees)			
Name	Country Name		Years	Months	locally	to India	to other Countries	Total
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0
	COUNTRY							0

**10. Declaration**

I hereby declare that the information given in this return is complete and correct to the best of my knowledge and belief.

- (i) Name in Full
- (ii) Designation
- (iii) Date:

## Annex-II(B)

CONFIDENTIAL

RESERVE BANK OF INDIA  
Department of Statistics and Information Management  
(Balance of Payments Statistics Division)Software and Information Technology (IT) Services Exports: Survey Schedule  
Reference Period : April-June, July-September and October-December 2008 (Quarterly)

## PART-A: Profile of the Company

<b>1. Name and address of the Company</b> Name of the Company Registered Address City State Pin Code	
<b>2. Contact Details</b> (i) Name in Full (ii) Designation (iii) Tel. No. (iv) Fax. No. (v) Email:	

## PART -B: Software and IT Exports

## 3. Information on Software and IT Services Exports

(a) Exports - Major Activities: Total Invoice value in Rupees [**including** billing to subsidiary(s)/ associate(s) abroad ] during the reference period according to major activities

Exports - Major Activity Group	April-June 20098 Invoice Value (Rupees)	July-Sep 2008 Invoice Value (Rupees)	Oct-Dec 2008 Invoice Value (Rupees)
(i) IT Services			
(ii) ITES/BPO			
(iii) Engineering Services			
(iv) Software Products			
<b>Total (I + ii + iii + iv)</b>	0	0	0

(b) Exports-Major Currencies: Invoice value in Rupees [**including** billing to subsidiary(s)/ associate(s) abroad] during the reference period according to major currencies

Exports - Major Currencies	April-June 2008 Invoice Value (Rupees)	July-Sep 2008 Invoice Value (Rupees)	Oct-Dec 2008 Invoice Value (Rupees)
(i) US \$			
(ii) Euro			
(iii) Pound Sterling			
(iv) Japanese Yen			

Annex-II(B) (Contd.)			
(v) Canadian Dollar			
(vi) Australian Dollar			
(vii) Indian Rupee			
(viii) Others (converted in Indian rupees)			
<b>Total [(i) to (viii)]</b>	0	0	0
(c) Exports- Type of Service: Total Invoice value in Rupees [including billing to subsidiary(s)/ associate(s) abroad] during the reference period as per type export service			
Exports - Type of Service	April-June 2008 Invoice Value (Rupees)	July-Sep 2008 Invoice Value (Rupees)	Oct-Dec 2008 Invoice Value (Rupees)
(i) On-site services			
(ii) Off-shore services in non-physical form ( <i>i.e.</i> , exports through data communication links <i>etc.</i> )			
(iii) Off-shore services in physical form			
<b>Total (i + ii + iii)</b>	0	0	0
(d) Exports - Major Areas: Total Invoice value in Rupees [ <b>including</b> billing to subsidiary(s)/ associate(s) abroad] during the reference period to major countries/ regional groups			
Exports - Regional Groups	April-June 2008 Invoice Value (Rupees)	July-Sep 2008 Invoice Value (Rupees)	Oct-Dec 2008 Invoice Value (Rupees)
(i) USA			
(ii) Canada			
(iii -a) Germany			
(iii - b) Hungary			
(iii - c) The Netherlands			
(iii - d) Switzerland			
(iii -e) United Kingdom			
(iii -z) Other European Countries			
(iv -a) Hong Kong			
(iv -b) Japan			
(iv -c) Singapore			
(iv -z) Other East Asian Countries			
(v) West Asia			
(vi) South Asia			
(vii) Australia			
(viii) New Zealand			
(ix) Latin America			
(x) Other Countries			
<b>Total (i + ii + ..... + ix + x)</b>	0	0	0

## Annex-II(B) (Concl'd.)

**4. Exports - Modes of Supply**

Total invoice on software and IT services exports as per the Modes of Supply during the reference period

Exports - Modes of Supply	April-June 2008 Invoice Value (Rupees)	July-Sep 2008 Invoice Value (Rupees)	Oct-Dec 2008 Invoice Value (Rupees)
(i) Services provided/ rendered to foreign entities/persons from Indian office (Cross border supply)			
(ii) Services provided/ rendered to foreign entities/persons while they are on visit to India			
(iii) Onsite services provided by deputing employees abroad			
<b>Total</b>	0	0	0

**5. Exports Proceeds- Receipt, Expenditure and Held Abroad**

Information on amount received, spent and held abroad [including billing to subsidiary(s)/ associate(s) abroad] on account of software and IT exports during the reference period

Exports Proceeds - Receipt, Expenditure and Held Abroad	April-June 2008 Amount (Rupees)	July-Sep 2008 Amount (Rupees)	Oct-Dec 2008 Amount (Rupees)
(i) Amount received from abroad during the reference period			
(ii) Total amount paid to employees abroad by the Indian company			
(iii) Total amount spent on office expenses etc. abroad (excluding amount paid to employees abroad) by the Indian company			
(iv) Total amount held abroad at the beginning of the reference period by the Indian company			
(v) Change in amount held abroad during the reference period (Increase +, Decrease -)			

**PART -C: Employment Details****6. Information on Number of Employees**

Employment	As on end-June 2008		As on end-September 2008		As on end-December 2008	
	Indian Citizen (1)	Foreigner (Citizens of other countries) (2)	Indian Citizen (1)	Foreigner (Citizens of other countries) (2)	Indian Citizen (1)	Foreigner (Citizens of other countries) (2)
a) Indian Company						
b) Subsidiary(s)/ Associate(s) abroad						
<b>Total (a + b)</b>	0	0	0	0	0	0



### Annex-III Concepts and Definition

#### Concepts and Definition:

##### *A. Definitional boundary of computer services exports*

In the BPM5, software & IT services are classified under 'Computer and information services' that covers computer data and news related service transactions. The 'Computer services' component of this services class includes data bases, such as development, storage, and on-line time series; data processing — including tabulation, provision of processing services on a time-share or specific (hourly) basis, and management of facilities of others on a continuing basis; hardware consultancy; software implementation — including design, development, and programming of customised systems; maintenance and repair of computers and peripheral equipment. However, BPM6 classifies Computer Services separately from Information Services which is in line with Manual on Statistics of International Trade in Services [MSITS(2002)]. The disaggregated information to be provided under the component 'Computer services' is mentioned in Annex-I. In the present survey, the information on Computer services exports are collected under head of IT services and software development services exports.

##### *B. Activity wise classification of IT Enabled Services*

As per the information available in the website of the Department of Information Technology of the Government of India [DIT, GoI(2003)], spectrum of IT Enabled Services (ITES) in India covers Call Centers, Medical Transcription, Back Office Operations, Revenue Accounting and other ancillary operation,

Insurance Claims Processing, Legal databases, Content Development/ Animation, Payroll Logistics Management, *etc.* However, BPM5 as well as BPM6 and the MSITS(2002) do not provide for any activity classified under the name of 'IT enabled' business services or BPO. As per BPM5, other business services cover, among others, miscellaneous business, professional, and technical services. It is generally agreed that underlying product (commodity), and not the mode of delivery, should be the criterion of classification. To illustrate, the provision of business services, such as accounting services, should be included under appropriate heading under the other business services even though these services are entirely delivered through computer or internet. In the present survey, exports through ITES/BPO services has been compiled based on the classification given by Department of Information Technology of the GoI [DIT(GoI(2003))].

##### *C. Modes of supply under General Agreement on Trade in Services (GATS) and software exports*

Recognising certain intrinsic differences in the way services are produced and consumed as compared to the way goods are produced and consumed, the General Agreement on Trade in Services (GATS) introduced the concept of modes of supply. It may be stated that while under BPM5, transactors in the international trade are classified into two types, *viz.*, resident and non-resident, the MSITS [2002] defined the four modes of supply in the following manner:

- (a) Mode 1 - cross-border supply: from the territory of one country into the territory of any other country;

### Annex-III Concepts and Definition (Concl.)

- (b) Mode 2 - consumption abroad: in the territory of one country to the service consumer of other country;
- (c) Mode 3 - commercial presence: by a service supplier of one country, through commercial presence in the territory of any other country;
- (d) Mode 4 - presence of natural persons: by a service supplier of one country, through presence of natural persons in the territory of any other country.

#### Software & IT Services Exports survey – 2008-09:

##### A. Survey Methodology:

The annual comprehensive survey for the period 2008-09, conducted through mailed (electronic mail) questionnaire canvassing around 6,400 companies, engaged in Software and Information Technology Enabled Services/ Business Process Outsourcing (ITES/BPO) services. The survey frame was prepared using the member companies of NASSCOM and companies registered with STPI. Thus, the comprehensive survey was census in nature. For the quarterly sample survey for the reference quarters April-June, July-September and October-December 2008, a sample of 200 companies was selected. The sample of 200 companies covered all 93 large companies (software export size of Rs.100 crore and above) and 107 small companies (export size of less than Rs.100 crore). The sample of small

companies was selected using simple random sampling from the frame of small companies. It was ensured that selected companies covered all the four major groups of activities, viz., IT services, BPO services, Engineering services and Software product development services. The large companies covered almost 80 per cent of total software export business in 2007-08

##### B. Response:

The survey results presented below are based on the response received from 916 companies for the annual comprehensive survey for 2008-09. Out of these companies, 200 companies were engaged only in BPO services, 59 companies in Engineering services, 292 in IT services, 108 companies in Software Product Development, while the remaining companies reported combination of above activities as their business activity. For the quarterly sample survey (April-December 2008), out of 200 companies, 187 companies responded covering the response from the major companies.

##### C. Information collected through the Survey:

Information collected through the survey was on various characteristics, viz.; business activity, type of organization, exports as per major activities, country and currency-wise exports, type of exports (onsite and offsite), modes of supply (as defined by GATS), information on employment, business done by the subsidiaries/ associates abroad.

## Annex-IV

## Methodology for estimation of Software Exports of Non-responded companies

Total 916 companies responded to the annual comprehensive survey for 2008-09, covering all major companies. So, the non-responded companies were the smaller companies. Further, it was observed from data received from the responded companies that onsite export was mainly reported by the major companies. So while estimating the exports done by the non-responded companies, only off-site export was considered. As no information was available about the business activity of the non-responded companies, these were classified into 4 groups *viz.*; IT, BPO, Engineering and Software Product Development based on the observed proportion. Also, the distribution of export in all the four groups *i.e.* IT, BPO, Engineering and Software Product Development was highly positively skewed. So median exports done by each of these groups was used for estimating the exports done by respective group of business. The detailed methodology for estimation of exports is given below. Using the methodology, the software services exports of non-respondent companies was estimated to the tune of Rs.28,958 crore (around 17.3 per cent of total software services exports). To estimate other distributional patterns of exports, observed proportions were used.

Annual survey on Software and IT Services Exports for the period 2008-09 was launched canvassing around 6,400 Software and IT/BPO companies. Of these, 964 companies responded to the survey which includes 48 NIL and closed companies. All the major software and IT/BPO companies responded to the survey. Using the observed proportion, number of NIL and Closed companies have been estimated from non-responded companies and software exports have been estimated for the remaining 5160 non-responded companies after adjusting for

closed and nil companies, using the following method:

- I. Based on the reported activity, companies have been classified in four groups, *viz.*; IT Services, BPO Services, Engineering Services and Software Product Services (having 100 per cent business under respective group).
- II. For classifying the other companies having combination of these as their business activity, reported proportions of their exports done in IT, BPO, Engineering and Software Product services have been used.
- III. Based on the reported data, it was observed that 'On-site' software export was primarily reported by the major companies. Therefore, only offshore software exports component was used for estimating software export of non-responded companies.
- IV. As the observed distribution of exports was highly positively skewed in each of these groups, median was used for estimating software exports in each group.

estimated software exports for ith group

$$= \text{median of } i^{\text{th}} \text{ group} * \left[ \frac{\# \text{ reported companies in } i^{\text{th}} \text{ group}}{\text{total no of reported companies}} \right] * \# \text{ non-responding companies}$$

Then, the total software exports of India has been compiled as the sum of reported software exports and the estimated software export for non-responded companies in each of the four groups.

For estimating the quarterly software exports, quarterly sample proportions of software exports, reported for quarterly Software and ITES/BPO services exports survey, were used for the first three quarters of 2008-09 while software exports for the fourth quarter was calculated as residual.