



# **India's Export of ICT-enabled Services**

**An all-India Survey : 2016-17**

Directorate General of Commercial  
Intelligence and Statistics  
Ministry of Commerce and Industry  
Government of India

**June 2018**



# INDIA'S EXPORT OF ICT-ENABLED SERVICES

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# List of Abbreviations

ICT	Information and Communications Technology
DGCIS	Directorate General of Commercial Intelligence & Statistics
UNCTAD	United Nations Conference in Trade and Development
UNSC	United Nations Statistical Commission
INR	Indian Rupee
USD	US Dollar
GATS	General Agreement on Trade in Services
FDI	Foreign Direct Investment
RBI	Reserve Bank of India
ITRS	International Transaction Reporting System
FEMA	Foreign Exchange Management Act
BoP	Balance of Payment
NSC	National Statistical Commission
BPO	Business Process Outsourcing
SRSWOR	Simple Random Sampling Without Replacement
BPM6	Balance of Payments and International Investment Position Manual, 6th edition
ISIC	International Standard Industrial Classification
TRAI	Telecom Regulatory Authority of India
TEPC	Telecom Equipment and Services Export Promotion Council
STPI	Software Technology Parks of India
IRDAI	Insurance Regulatory and Development Authority of India
MHRD	Ministry of Human Resource Development
NASSCOM	National Association of Software and Services Companies
EBOPS	Extended Balance of Payment Services



## FOREWORD

**P**henomenal increase in the role of ICT-enabled services in the developed and developing economies has led to manifold increase in the demand for timely and reliable data on trade in ICT-enabled services from policymakers, trade negotiators, researchers and international institutions. With India's ICT sector growing at a brisk pace, there is a great demand for timely and reliable disaggregated level data on trade in ICT-enabled services.

The Directorate General of Commercial Intelligence & Statistics (DGCIS) launched a pan-India survey in July 2017 in technical collaboration with UNCTAD to collect and compile disaggregated level information on India's exports of ICT-enabled services by partner country as well as mode of delivery of services. This report is a presentation of the findings of the all-India survey covering about 2500 enterprises distributed across different categories of ICT-enabled services.

It is important to note that such a comprehensive enterprise survey covering all ICT-enabled services has been attempted for the first time in India to measure exports of these services. Hence, while there were certain issues that DGCIS experienced during the course of the survey like non-availability of a complete list of ICT-enabled service providers, it has nevertheless been a great learning experience that I am sure would help to strengthen the data collection of ICT-enabled services in future.

The availability of a complete list of units is a prerequisite to conduct a survey. Since India does not have a Business Register, DGCIS undertook

a separate exercise in collaboration with several Government agencies for preparing the business directory at the sectoral level. However, in spite of best efforts, it has not been possible to ensure completeness of coverage for all categories of services. This may induce some non-sampling errors in estimation.

To conclude, I would like to express my sincere thanks to UNCTAD for selecting India as one of the four countries to conduct the study required to operationalize the new classification of ICT-enabled services and developing a methodology for measuring trade in ICT-enabled services. I would also like to put on record my deep appreciation for the whole hearted efforts put in by Dr. Amitava Saha, Director and Sri Debashis Mandal, Deputy Director as well as the officials of Services Trade Statistics Division under the overall guidance and supervision of Sri Amitabha Pradhan, Deputy Director General, to undertake the survey on "India's Export of ICT-enabled services".

I am certain that this report will provide vital inputs to our policymakers to design the right policy for the promotion of ICT-enabled services export in the country. I do hope that the industry will find these survey findings useful and would participate actively in the forthcoming surveys.

Jyotirmoy Poddar  
Director General, DGCIS





# EXECUTIVE SUMMARY





## EXECUTIVE SUMMARY

- With the advancement in Information and Communication Technology, there has been a notable growth in trade in ICT-enabled services across the economies worldwide. This has led to manifold increase in the demand for timely and accurate disaggregate level data on trade in ICT-enabled services from policymakers, trade negotiators and researchers.
- In order to collect and compile disaggregated level information on India's exports of ICT-enabled services by partner country and mode of delivery of service, Directorate General of Commercial Intelligence & Statistics (DGCIS) conducted a pan-India survey on exports of ICT-enabled services adopting the definition of 'ICT-enabled services' as developed by UNCTAD and approved by the United Nations Statistical Commission.
- Potential ICT-enabled services (that can be predominantly delivered from remote locations over ICT networks) exports covering 9 different categories, namely, (i) Telecommunications, (ii) Computer Services (including computer software), (iii) Sales and marketing services, not including trade and leasing services, (iv) Information services, (v) Financial services, (vi) Management, administration and back office services, (vii) Licensing services, (viii) Engineering, related technical services and R&D and (ix) Education and training services during the FY 2016-17 was valued at 103 Billion USD (6912 Billion INR) contributing to 63% of India's total exports of services.
- The contribution of Mode 1 or ICT-enabled services was about 81% while Mode 4 contributed 19%. Supply of potential ICT-enabled services through Mode 2 was negligible except for education and training services (45%).
- Among the 9 categories of potential ICT-enabled services, exports of Computer services (including computer software) was the highest (63%) followed by Management, administration and back office services (14%) and Engineering, related technical services and R&D (11%).
- Mode 4 delivery of services was the maximum for Computer services (including computer software) (27%) followed by Engineering, related technical services and R&D (17%).
- America was the largest destination of India's exports of potential ICT-enabled as well as ICT-enabled (Mode 1) services, with about 56% of total potential ICT-enabled services and 47% of ICT-enabled services (Mode 1) being exported to this continent during the financial year 2016-17.
- Europe was the second largest destination accounting for about 26% of India's exports of potential ICT-enabled services and 22% of ICT-enabled (Mode 1). Among the continents, Asia ranked third contributing to 14% export of potential ICT-enabled and 11% of ICT-enabled services.
- United States was the largest destination for India's export of potential ICT-enabled as well as ICT-enabled (Mode 1) services, accounting for more than half (57%) of total exports of potential ICT-enabled services and about 46% of ICT-enabled services during FY 2016-17. The second most important destination of exports of potential ICT-enabled services from India was the United Kingdom (UK) and 'Other European Countries' consisting of France, Italy, Ireland, Spain, Luxembourg etc., the third largest destination of India's exports of potential ICT-enabled services.
- Large enterprises, i.e., enterprises employing more than 250 persons, contributed to 96% of the total value of potential ICT-enabled services exports while enterprises employing up to 250 persons contributed the remaining 4% of export of potential ICT-enabled services.
- The overall export intensity for the potential ICT-enabled services was 34% indicating a reasonable level of dependence on exports.
- There were services like Computer services (including computer software), Management,

administration and back office services with export intensities as high as 89% and 85% respectively. Information services and Engineering, related technical services and R&D services with export intensities, 67% and 64% respectively were also largely dependent on exports. Financial services had the lowest export intensity.

- A major impediment in conduct of surveys on trade in services in India is the non-availability of a pre-established business directory of service providers. The Goods & Services Tax implemented from 1<sup>st</sup> July, 2017 has provisions for registering all enterprises making taxable inter-state supply that include export and import of both goods and services. The GSTN registration data may be effectively utilized for preparation of a Business Directory to improve coverage of the sector specific surveys for enhancement of the quality of the estimates.
- The present survey has been conducted to capture

data on export of ICT-enabled services. A number of developed countries have undertaken surveys to collect data on import of ICT-enabled services. In future attempts may be made to capture data on India's imports of ICT-enabled services.

- Development in information and communication technology has potential for rapid growth in employment, productivity and output. It is, therefore, important to ascertain the impact of ICT in economic development of the country. With India's ICT sector growing at a brisk pace and the Government taking several initiatives to gradually move to a digital economy, there is a great demand for more comprehensive data on ICT-enabled services from policymakers, researchers and international institutions. Thus, there is a need to undertake survey on ICT-enabled services at regular intervals to develop and strengthen this database.



# 1

## *I*NTRODUCTION





## INTRODUCTION

### 1.1 Background

Services are intangible and because of its very nature, services trade is subject to more constraints than trade in goods. Unlike trade in goods, services need not necessarily cross the frontiers of a country for trade to take place. In many cases, services are consumed abroad. On the other hand, there are a number of services that are non-transportable, i.e., services that require the physical proximity of supplier & customer—for example, to avail the service of barber the customer has to visit a barber shop. To tackle the complexity involved in trade in services, General Agreement on Trade in Services (GATS) defines services in four different types of modes:

#### Box 1.1: GATS modes of supply of services

Mode 1: *Cross-border supply* – services supplied from the territory of one country into the territory of another,

Mode 2: *Consumption abroad* – services supplied in the territory of a nation to the consumers of another,

Mode 3: *Commercial Presence* – services supplied through any type of business or professional establishment of one country in the territory of another (i.e., FDI) and

Mode 4: *Presence of natural person* – services supplied by nationals of a country in the territory of another.

With rapid advancement in technology, in particular in information & communication technologies (ICT), together with an increasing disintegration of production (i.e., outsourcing of services activities) services has no longer remained non-tradable. A phenomenal increase in the role of ICT-enabled services in the developed as well as developing economies globally and also its contribution in global trade has been noticed. This ultimately has led to manifold increase in the demand for timely and reliable disaggregate level data on trade in ICT-enabled services from the policymakers, trade negotiators as well as researchers during the last decade.

In India, the Reserve Bank of India (RBI) is the only agency compiling & disseminating services trade data. It publishes

data on services trade in its regular publication, 'Reserve Bank of India Bulletin' on the basis of information collected through the International Transaction Reporting System (ITRS) implemented under the Foreign Exchange Management Act (FEMA). Apart from this, the RBI has also been conducting annual surveys on (i) Computer Software & Information Technology Enabled Services Exports' since 2002-03 and (ii) International Trade in Banking services to enable compilation of disaggregated level statistics of trade in services for these two sectors.

As a component of Balance of Payment (BoP) statistics, the RBI compiles and publishes information on receipts (exports) and payments (imports) only for a selected number of ICT-enabled services, namely, insurance and pension services, financial services, telecommunications, computer, and information services etc. Although information on few more categories of ICT-enabled services is published by the Central Bank at quarterly intervals, information with complete coverage of ICT-enabled services is not available from RBI publications. Moreover, the information is available at aggregate level without any break-up by partner country and by mode of delivery of services.

### 1.2 Objective of the survey

Following the recommendations of the National Statistical Commission (NSC), the RBI since 2002 has been conducting a comprehensive survey on India's 'Computer Software and Information Technology Services Exports', annually to generate detailed information on India's exports of IT and IT-enabled services. In this survey, following the recommendations of the Balance of Payments Manual, Version 6 (BPM 6), information on 4 major categories of IT-enabled services is collected:

- (i) IT Services
- (ii) ITeS/Business Process Outsourcing (BPO) Services
- (iii) Engineering Services
- (iv) Software Products.

On the basis of the information collected, RBI compiles and publishes figures on export of computer software and information technology services for (i) groups of countries and also by (ii) mode of delivery. However,



this RBI survey does not cover a host of important categories of ICT-enabled services, like

- (i) Telecommunications,
- (ii) Information services,
- (iii) Insurance services,
- (iv) Financial Services,
- (v) Licensing services,
- (vi) Sales & marketing services, not including trade and leasing,
- (vii) Education and training services.

Thus, the RBI survey is incomplete in terms of coverage of ICT-enabled services and hence, unable to meet the disaggregated data requirement of policymakers to understand and assess the economic fallout of trade in ICT-enabled services.

To meet the increasing demand for disaggregated level data of ICT-enabled services of the policymakers, trade negotiators and various other stakeholders across the world, the United Nations Conference in Trade and Development (UNCTAD) began an initiative in the year 2014 for development of a proper classification along with a methodology for measuring trade in ICT-enabled services. Consequently, a definition of ICT-enabled services has been developed by UNCTAD and the following 10 categories of services have been classified as ICT-enabled services:

#### Box 1.2: Definition of ICT-enabled services

*ICT-enabled services are services delivered remotely over ICT networks.*

*Potentially ICT-enabled services: (i) Telecommunications, (ii) Computer Services (including computer software), (iii) Sales and marketing services, not including trade and leasing services, (iv) Information services, (v) Insurance services, (vi) Financial services, (vii) Management, administration and back office services, (viii) Licensing services, (ix) Engineering, related technical services and R&D and (x) Education and training services.*

According to the definition followed, services delivered through Mode 1 are essentially 'ICT-

enabled' services while those delivered through Mode1, Mode 2 & 4 are 'potential ICT-enabled' services.

With a view to operationalize the classification, UNCTAD decided to conduct methodological/pilot studies in four countries, namely, India, Costa Rica, Egypt and Thailand utilizing the classification approved by the UNSC. As these 10 categories of services together account for about 70% of India's total export of services, DGCIIS under the Ministry of Commerce and Industry, in technical collaboration with UNCTAD decided to launch a pan-India survey instead of a methodological study proposed by UNCTAD. Accordingly, an all-India survey was launched in July 2017 with a view to collect and compile disaggregated level information on India's exports of ICT-enabled services by partner country as well as mode of delivery of service.

However, in view of the complexity involved in collection of information for insurance sector and also because of the fact that the usual concept of mode of supply does not apply to this sector, it has been decided to develop a separate format to collect information for insurance services that is consistent with the global best practices. *Thus, the survey on export of ICT-enabled services was restricted to 9 categories (except insurance services as mentioned above).*

The all India survey covered about 2500 enterprises distributed across the 9 categories mentioned above. A separate survey on insurance services has been launched in January 2018 and the fieldwork for the same is currently in progress.

### 1.3 Features of the survey

1.3.1 Geographical Coverage: The survey covered the entire Union of India.

1.3.2 Sampling Units: Enterprise-based approach has been adopted and information covering all establishments spread across the country was collected from the corporate headquarters of the enterprises. All enterprises in the sampling frame were divided into two types, namely, census and sample sector units following the criterion as defined in Chapter 3.

1.3.3 Sampling Design: While the census sector units

were covered on a 100 percent basis, the sample units had been selected following Simple Random Sampling without Replacement (SRSWOR).

1.3.4 Survey format: A format on the basis of the model questionnaire (questionnaire 12) as suggested in the BPM6 compilers' guide was prepared in consultation with UNCTAD. Modifications in the questionnaire were made to collect information on export of services for a group of pre-defined trading partners that are important for India and also export of services by Mode 2 and Mode 4 in addition to Mode 1. An excel format of the questionnaire had also been designed and the same was made available through the website of DGCIS.

1.3.5 Reference Period: The estimates presented in this report are based on the information collected for the financial year 2016-17, i.e., from April 2016 to March 2017.

1.3.6 Legal framework: The survey was conducted under the legal framework of Collection of Statistics Act, 2008 that makes it obligatory on part of the respondents to furnish the information called for within the prescribed time. The Collection of Statistics Act, 2008 also guarantees the confidentiality of the information provided.

1.3.7 Mode of collection of information: The selected

enterprises were issued notices under the Collection of Statistics Act (CSA), 2008 and encouraged to self-compile on the basis of the guidelines issued and submit information to DGCIS within one month from the date of the receipt of the notice. This was followed by telephonic follow-up and issue of reminder for submission of information. No field visit was undertaken for collection of information from the selected enterprises. Guidance for compilation and submission of information was provided through e-mail and telephone.

1.3.8 Contents of this report: This document is a presentation of the results of the pan-India survey conducted on export of ICT-enabled services. It consists of five chapters. Chapter One is a brief introduction of the survey highlighting the background and objectives of the survey. The concepts and definitions used in the survey have been elaborated in Chapter Two while Chapter Three briefly describes the methodology followed for collection of information in the survey. The findings of the survey are discussed in Chapter Four. Chapter Five comprises of observations on survey findings, limitations and few recommendations.

The detailed tables are included in Annexure I while the questionnaire used in the survey is provided in Annexure II. The list of 2-digit ISIC codes is given in Annexure III.





# 2

## CONCEPTS, DEFINITIONS AND CLASSIFICATION





## CONCEPTS, DEFINITIONS AND CLASSIFICATION

### 2.1 Exports of services:

Exports of services are sales of services provided to non-resident importers. They correspond to services for which payment is made directly to an enterprise by a non-resident entity (including a foreign affiliate of the enterprise). Exports include services provided by an enterprise or its employees working abroad, or some other resident entity on whose behalf the enterprise receives payment. Exports exclude services that are provided to non-residents by the enterprise and paid for through other unrelated resident entities.

### 2.2 ICT-enabled services :

UNCTAD has defined ICT-enabled services as "services products delivered remotely over ICT networks". This has been used for the purpose of collection of information in the present survey. The following 10 categories of services are identified as potentially ICT-enabled services:

- i. Telecommunications
- ii. Computer Services (including computer software)
- iii. Sales and marketing services, not including trade and leasing services
- iv. Information services
- v. Insurance services
- vi. Financial services
- vii. Management, administration and back office services
- viii. Licensing services
- ix. Engineering, related technical services and R&D
- x. Education and training services.

**2.2.1 Telecommunications:** Telecommunications include: (i) Telephony and other telecommunications services; (ii) Internet telecommunications services; (iii) Broadcasting services.

**2.2.2 Computer Services (including computer software):** Computer services (including computer software) include: (i) Licensing services for the right to use computer software; (ii) Software downloads; (iii) Software originals; (iv) On-line games; (v) On-line software; (vi) IT consulting

and support services; (vii) Hosting and information technology (IT) infrastructure provisioning services; (viii) IT infrastructure and network management services; (ix) Maintenance and repair services of computers and peripheral equipment; (x) IT design and development services for applications; (xi) Other education and training services n.e.c.

**2.2.3 Sales and Marketing Services, not including trade and leasing services:** Sales and marketing services, not including trade and leasing services, include: (i) Advertising services and provision of advertising space or time; (ii) Market research and public opinion polling services; (iii) Advertising and related photography services; (iv) Convention and trade show assistance and organisation services.

**2.2.4 Information Services:** Information services include: (i) Audiovisual and related services; (ii) On-line audio content; (iii) On-line video content; (iv) Radio and television broadcast originals; (v) Home programme distribution services, basic programming package; (vi) Home programme distribution services, discretionary programming package; (vii) Home programme distribution services, pay per view; (viii) Radio and television channel programmes; (ix) On-line books; (x) Human health services; (xi) On-line gambling services; (xii) News agency services; (xiii) Library and archive services; (xiv) Original compilations of facts/information; (xv) On-line newspapers and originals; (xvi) On-line directories and mailing lists; (xvii) On-line adult content; (xviii) Web search portal content; (xix) Other on-line content n.e.c.; (xx) All other professional, technical and business services n.e.c..

**2.2.5 Financial Services:** Financial services include: (i) Investment banking services; (ii) Services auxiliary to financial services other than to insurance and pensions; (iii) Services of holding financial assets; (iv) Other financial services, except investment banking, insurance services and pension services; (v) Central Banking services; (vi) Deposit services; (vii) Credit-granting services; (viii) Financial leasing services; (ix) Pension fund management services; (x) Individual pension services; (xi) Group pension services.

**2.2.6 Management, Administration and Back Office Services:** Management, administration and back office

services include: (i) Legal services; (ii) Accounting, auditing and bookkeeping services; (iii) Tax consultancy and preparation services; (iv) Insolvency and receivership services; (v) Management consulting and management services; (vi) Business consulting services; (vii) Other management services, except construction project management services; (viii) Employment services; (ix) Investigation and security services; (x) Travel arrangements, tour operator and related services; (xi) Credit reporting services; (xii) Collection agency services; (xiii) Telephone-based support services; (xiv) Combined office administrative services; (xv) Specialized office support services; (xvi) Other information and support services n.e.c..

**2.2.7 Licensing Services:** Licensing services include: (i) Licensing services for the right to use trademarks and franchises; (ii) Licensing services for the right to use R&D products; (iii) Licensing services for the right to use entertainment, literary or artistic originals; (iv) Licensing services for the right to use mineral exploration and evaluation; (v) Licensing services for the right to use other intellectual property products; (vi) Licensing services for the right to use databases.

**2.2.8 Engineering, related Technical Services and R&D:** Engineering, related technical services and R&D include: (i) Research and experimental development services in natural sciences and engineering; (ii) Research and experimental development services in social sciences and humanities; (iii) Interdisciplinary research and experimental development services; (iv) Industrial design services; (v) Research and development originals; (vi) Design originals; (vii) Technical testing and analysis services; (viii) Architectural services, urban and land planning and landscape architectural services; (ix) Engineering services; (x) Surface surveying and map-making services; (xi) Weather forecasting and meteorological services; (xii) Scientific and technical consulting services n.e.c.; (xiii) Publishing, printing and reproduction services; (xiv) Photographic processing

services; (xv) Translation and interpretation services; (xvi) Restoration and retouching services of photography; (xvii) Other photography services; (xviii) Interior design services; (xix) Other specialty design services; (xx) Drafting services, n.e.c..

**2.2.9 Education and Training Services:** Education and training services include: (i) Pre-primary education services; (ii) Primary education services; (iii) Secondary education services; (iv) Post-secondary non-tertiary education services; (v) Tertiary education services; (vi) Educational support services; (vii) Cultural education services; (viii) Sports and recreation education services; (ix) Other education and training services, n.e.c..

### **2.3 Basis of reporting :**

Value of exports figures were reported on accrual basis irrespective of whether or not the amount had been received. Transactions were to be reported on a gross basis. Expenses incurred in the course of rendering the service, e.g. commissions, other services, etc., were to be included.

### **2.4 Currency of reporting :**

All the value figures were reported in Indian Rupee only. The enterprises were advised to convert foreign currencies to Indian Rupee (INR) using average exchange rate for the period of reference.

### **2.5 Principal Activity of the enterprise :**

For reporting principal activity of the enterprise, the International Standard Industrial Classification (ISIC), Revision 4 at 2-digit level have been used. The complete list of all 2-digit ISIC codes is given in Annexure III.

### **2.6 Composition of regions :**

The composition of the 5 geographical regions used in the survey format is as mentioned here :

Region	Country	Region	Country
Latin America	Argentina	Other East Asian Countries	Malaysia
	Belize		Mongolia
	Bolivia		Myanmar
	Brazil		Philippines
	Chile		Taiwan, Province of China
	Colombia		Thailand
	Costa Rica		Timor-Leste
	Ecuador		Viet Nam
	El Salvador		
	Faroe Islands	Åland Islands	
	French Guiana	Albania	
	Guatemala	Andorra	
	Guyana	Austria	
	Honduras	Belarus	
	Mexico	Belgium	
	Nicaragua	Bosnia and Herzegovina	
	Panama	Bulgaria	
	Paraguay	Channel Islands	
	Peru	Croatia	
	Suriname	Czech Republic	
Uruguay	Denmark		
Venezuela	Estonia		
	Falkland Islands (Malvinas)		
Other East Asian Countries	Brunei Darussalam	Finland	
	Cambodia	France	
	China	Gibraltar	
	Christmas Island	Greece	
	Cocos (Keeling) Islands	Guernsey	
	Indonesia	Holy See (Vatican City State)	
	Korea, Republic of	Iceland	
	Lao People's Democratic Republic	Ireland	
	Macao	Isle of Man	



Region	Country	Region	Country
Other European Countries	Italy	South Asia	Iran, Islamic Republic of
	Jersey		Maldives
	Latvia		Nepal
	Liechtenstein		Pakistan
	Lithuania		Sri Lanka
	Luxembourg		
	Macedonia, The former Yugoslav Republic of	Azerbaijan	
	Malta	Armenia	
	Moldova, Republic of	Bahrain	
	Monaco	Cyprus	
	Montenegro	Georgia	
	Norway	Iraq	
	Poland	Israel	
	Portugal	Jordan	
	Romania	Kazakhstan	
	Russian Federation	Kuwait	
	San Marino	Kyrgyzstan	
	Sark	Lebanon	
	Serbia	Oman	
	Slovakia	Palestine, State of	
Slovenia	Qatar		
Spain	Saudi Arabia		
Svalbard and Jan Mayen	Syrian Arab Republic		
Sweden	Tajikistan		
Ukraine	Turkey		
	Turkmenistan		
	United Arab Emirates		
	Uzbekistan		
	Yemen		
South Asia	Afghanistan		
	Bangladesh		
	Bhutan		
	India		

# 3

## *M*ETHOD OF DATA COLLECTION





## CONCEPTS, DEFINITION AND CLASSIFICATION

### 3.1 Preparation of Sampling Frame:

The first and foremost requirement for conduct of a survey is the availability of a sampling frame or complete list of units from which units are to be selected following certain statistical methodology. However, in India there is no Business Register and this makes the conduct of a business survey like the present one challenging. Information on units engaged in exports of ICT-enabled services have been collected from a number of sources

and sector specific frames prepared by collating basic information like name of unit, address, contact details, website address etc. Information collected in this way has been updated before launch of the survey to capture the latest changes in addresses and contact details of the selected units. The table below lists the agencies from which information has been collected for different category of services to prepare the sector specific sampling frame.

Agency	Sector/Category of Service
Reserve Bank of India (RBI): Information collected under International Transaction Reporting System	All
Telecom Regulatory Authority of India (TRAI)	Telecommunication
Telecom Equipment and Services Export Promotion Council (TEPC)	
NASSCOM, Software Technology Parks of India (STPI),	All except education
Insurance Regulatory and Development Authority of India (IRDAI)	Insurance
Ministry of Human Resource Development (MHRD)	Education

### 3.2 Census & Sample Units:

All the units of the sampling frame have been classified

into two categories, namely, 'census' and 'sample' using the criteria as mentioned below:

Category of service	Criteria followed for dividing into census/sample
Telecommunications, Engineering, related technical services and R&D, Education and Training	Enterprises are ranked in descending order of value of exports (as provided by the RBI from ITRS database) and the enterprises (starting from the highest contributor) having a cumulative contribution of 90% to the total value of exports are regarded as 'census' units. The remaining enterprises are included in the 'sample' sector.
Computer services (including computer software), Sales and marketing services, not including trade and leasing services, Information services, Management, administration and back office services, Licensing services	Top 100 enterprises from NASSCOM's member list having a cumulative contribution of 70% to the total value of exports are included in 'census' sector. Apart from this, STPI units which are not members of NASSCOM are also regarded as 'census' units. The remaining enterprises are included in the 'sample' sector.
Financial services	All public sector and private banks are regarded as 'census' units. The remaining enterprises are ranked in descending order of value of exports (as provided by the RBI from ITRS database) and the enterprises (starting from the highest contributor) having a cumulative contribution of 90% to the total value of exports is regarded as 'census' units. Other enterprises are included in the 'sample' sector.

### 3.3 Selection of samples:

While all the units belonging to census sector were covered, units from the sample sector were selected with Simple Random Sampling without Replacement (SRSWOR). The selected units were issued notices under the Collection of Statistics Act, 2008 for supply of the information within a specified period.

### 3.4 Respondents:

Enterprise-based approach was adopted and information had been collected from the corporate headquarters of the establishments.

### 3.5 Composition of Format:

With a view to compile disaggregated level statistics of India's exports of ICT-enabled services, a format, following the model questionnaire (questionnaire 12) as prescribed by the IMF in the BPM6 compilers' guide, was prepared in consultation with UNCTAD. The questionnaire contained the following four major sections:

- a. Section A: Identification particulars of the service provider – has provision for collection of information on name, address, telephone number etc. along with the respondent details of the enterprise;

- b. Section B: General Information – for reporting number of persons employed along with percentage break-up of male & female employees, total turnover from services as well as other than services, total value of exports of services, principal activity of the enterprise etc.;
- c. Section C: Services exports to be included – for identification of the potential ICT-enabled services exported by the enterprise;
- d. Section D: Details of services exports – specifically designed for reporting information on exports of each category of services along with percentage of exports delivered through (i) to foreign entities/persons from office in India over internet, telephone or other ICT networks (Mode 1), (ii) to foreign entities/ persons, temporarily in India (Mode 2) and (iii) through on-site services by deputing employees abroad (Mode 4). This section has also provision for reporting value of exports of services for a pre-defined group of partner countries along with percentage of Mode 1 (ICT-enabled) exports to each trading partner.

Please refer to Annexure II for the complete questionnaire.

# 4

## EXPORTS OF ICT-ENABLED SERVICES





## EXPORTS OF ICT-ENABLED SERVICES

In order to meet the ever-increasing demand of disaggregated level statistics of exports of ICT-enabled services of India, this survey focused on collection of information on India's exports of potential ICT-enabled services by 9 different categories of services along with break-up by partner country. The survey covered supply of services by three modes of services, namely, Mode 1: supply of services to foreign entities/persons from office in India over internet, telephone or other ICT networks; Mode 2: supply of services to foreign entities/persons, temporarily in India and Mode 4: on-site supply by deputing employees abroad. *Information on Mode 3 transactions of the enterprises was not collected in the survey. As mentioned earlier, insurance services were kept outside the purview of this survey.*

Value of exports figures were reported by the enterprises

in Indian Rupee (INR) only. However, for the purpose of comparability, in this chapter, values of exports figures are also reported in US dollar (USD) and these figures have been derived using the annual average Indian Rupee – Dollar exchange rate as published by the RBI. The exchange rate for the period April 2016 to March 2017 was 1 USD = 67.0702 INR.

### 4.1. Exports of potential ICT-enabled services by category and mode of supply:

India's total export of potential ICT-enabled services (except insurance) during financial year 2016-17 was estimated at 103 billion USD (INR 6912 billion). The contribution of Mode 1 or ICT-enabled services was about 81% while Mode 4 contributed 19%. Supply of potential ICT-enabled services through Mode 2 was negligible (see Figure 4.1 and Table 4.1).

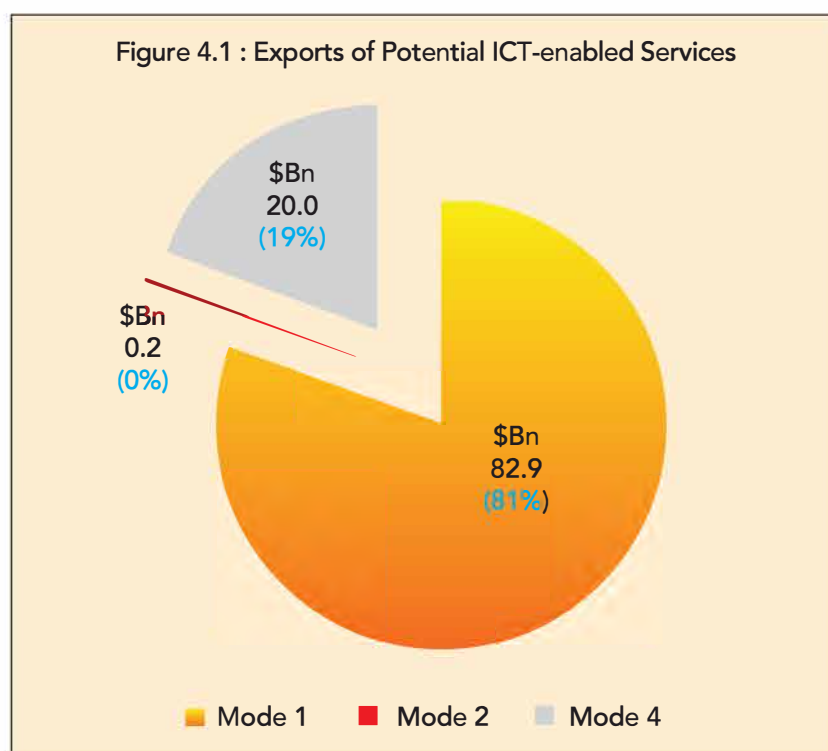




Table 4.1: Exports of ICT-enabled services by category and mode of supply

Sl. No.	Category of Service	Value of Exports (in INR Billion)				Value of Exports (in USD Million)			
		Mode 1	Mode 2	Mode 4	Total	Mode 1	Mode 2	Mode 4	Total
1	Telecommunications	185.3	-	1.4	186.7	2,762.7	-	20.2	2,782.9
2	Computer Services (including Computer Software)	3,199.5	0.4	1,167.5	4,367.4	47,704.3	5.8	17,407.1	65,117.1
3	Sales and marketing services, not including trade and leasing services	44.7	0.3	-	44.9	665.7	4.1	-	669.7
4	Information Services	437.3	0.1	2.9	440.2	6,519.9	1.0	43.0	6,563.8
5	Financial services	114.0	0.5	3.7	118.2	1,699.3	7.1	55.7	1,762.1
6	Management, administration and back office services	905.6	0.1	29.3	935.0	13,502.8	1.7	436.1	13,940.5
7	Licensing services	23.1	-	-	23.1	343.7	-	-	343.7
8	Engineering, related technical services and R&D	646.9	6.5	133.8	787.2	9,644.4	97.1	1,995.1	11,736.6
9	Education and training services	5.0	4.4	0.4	9.8	74.2	65.8	6.0	146.1
	<b>All</b>	<b>5,561.3</b>	<b>12.2</b>	<b>1,338.9</b>	<b>6,912.4</b>	<b>82,916.9</b>	<b>182.5</b>	<b>19,963.1</b>	<b>103,062.5</b>

Note: (i) The sum of components in the tables may marginally differ from totals, due to the effect of rounding off.

(ii) The INR figures have been converted to USD using the average annual exchange rate of 1 USD = 67.0702 INR for the period April 2016 to March 2017.

(iii) Mode 1: to foreign entities/persons from office in India over internet, telephone or other ICT networks; Mode 2: to foreign entities/persons temporarily in India; Mode 4: through on-site services by deputing employees abroad.

(iv) '-' represents non-reporting or zero-value of exports

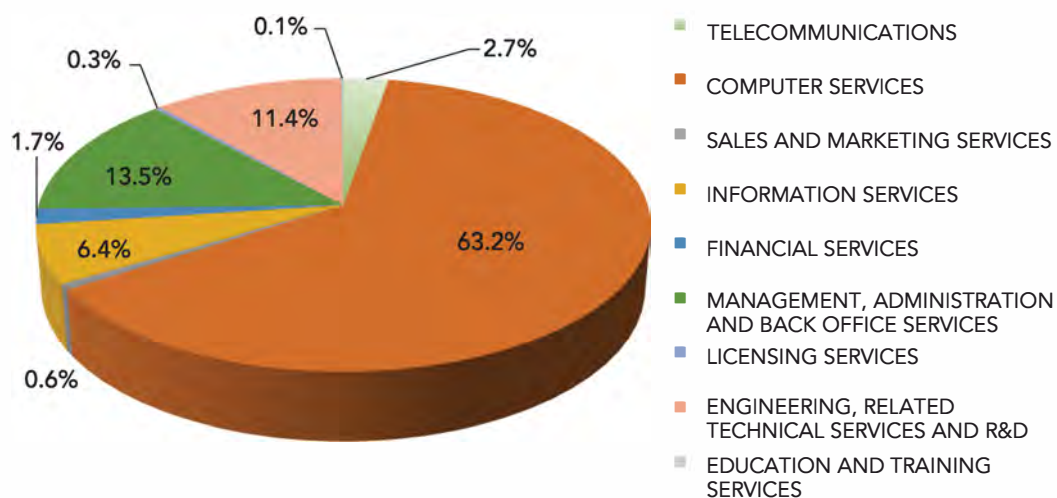
## EXPORTS OF ICT-ENABLED SERVICES

Among the 9 categories of potential ICT-enabled services, export of Computer services (including computer software) was the highest (63%) followed by Management, administration and back office services (14%) and Engineering, related technical services and

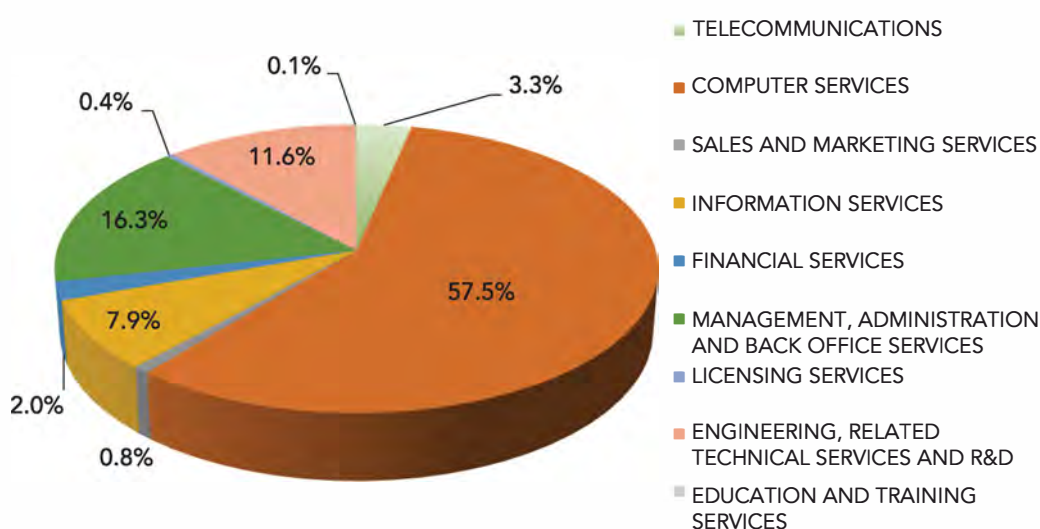
enabled services (see Figure 4.2 and Table 4.1). A similar pattern was noticed for export of ICT-enabled (Mode 1) services (see Figure 4.3).

Mode 1, i.e., ICT-enabled was the predominant mode of supply for all 9 categories of potential ICT-enabled

**Figure 4.2 : Exports of potential ICT-enabled services in 2016-17**



**Figure 4.3 : Exports of ICT-enabled (Mode 1) services in 2016-17**

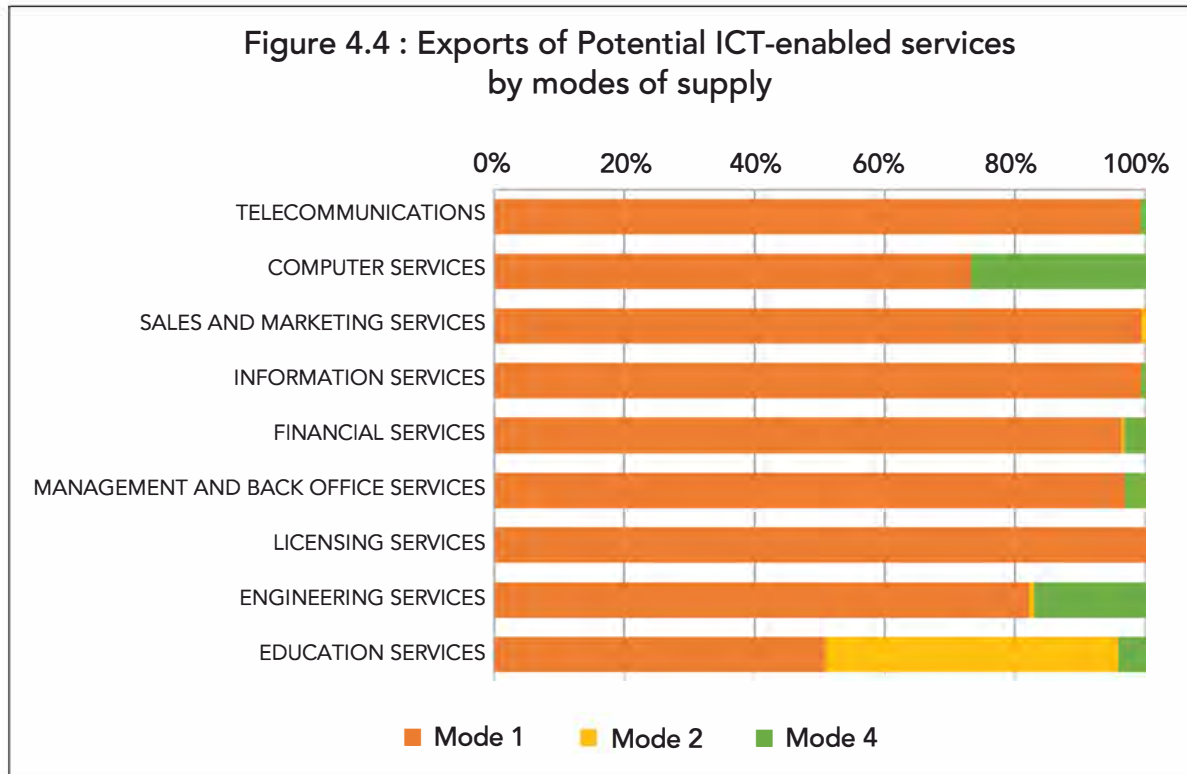


R&D (11%). Contribution of Education and training services was the lowest among the potential ICT-

services. Supply of services through Mode 2 was almost insignificant except for Education and training (45%).

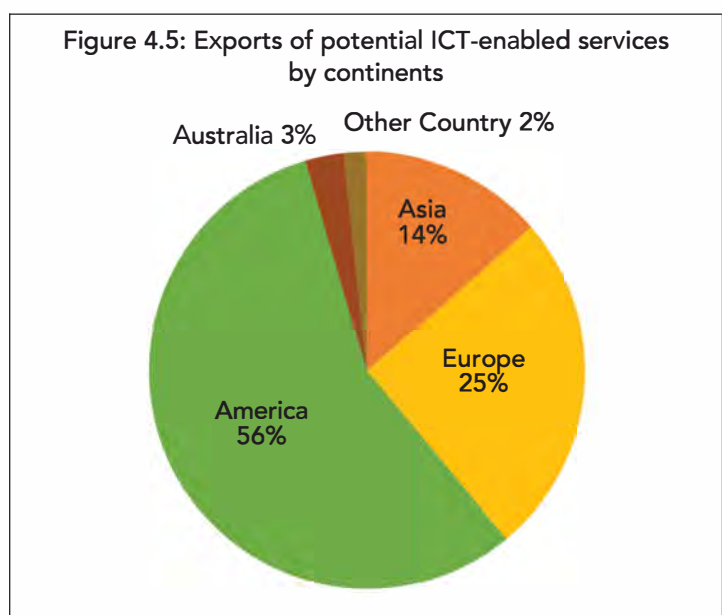
Mode 4 delivery of services was the maximum for Computer services (including computer software) (27%) followed by Engineering, related technical services

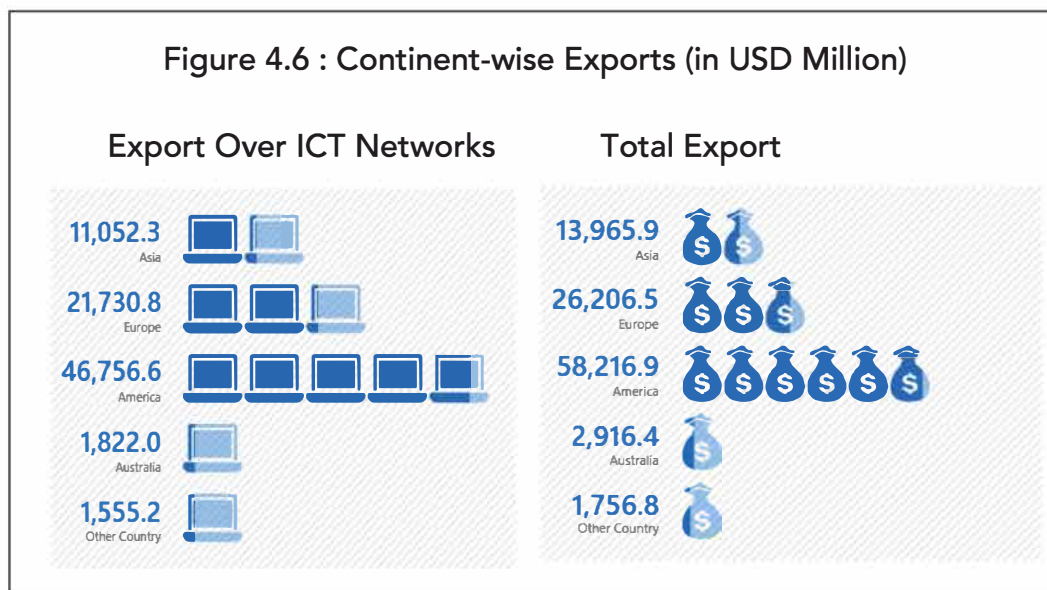
and R&D (17%). For other services, Mode 4 delivery was nominal (see Table 4.2, Figure 4.4 and Annexure Tables A1 &A2).



#### 4.2. Exports of potential ICT-enabled services by continents and countries:

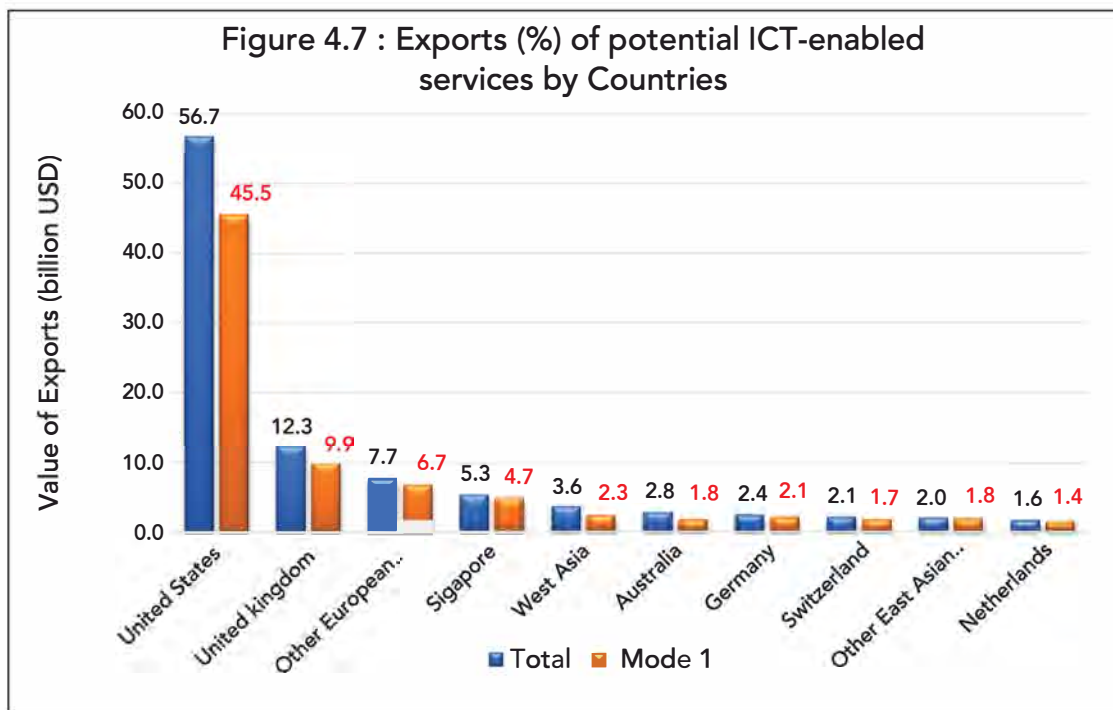
America was the largest destination of India's exports of potential ICT-enabled as well as ICT-enabled (Mode 1) services with about 56% of total potential ICT-enabled services and 47% of ICT-enabled services (Mode 1) being exported to this destination during the financial year 2016-17. Europe was the second largest destination accounting for about 26% of India's total export of potential ICT-enabled and 22% of total exports of ICT-enabled services (Mode 1). Asia ranks third in the list contributing to 14% of export of potential ICT-enabled and 11% of ICT-enabled services (see Figures 4.5, 4.6 and Table 4.2).





The United States (US) was the largest destination for India's export of potential ICT-enabled as well ICT-enabled (Mode 1) services. More than half (57%) of

of exports of potential ICT-enabled services from India was the United Kingdom (UK) and 'Other European Countries' consisting of France, Italy, Ireland, Spain,



India's total exports of potential ICT-enabled services had been to US in FY 2016-17 while supply of services through Mode 1 to US was about 46% during the same period. The second most important destination

Luxembourg etc. was the third largest destination of India's exports of potential ICT-enabled services (see Figure 4.7 and Table 4.2).

Table 4.2: Exports of ICT-enabled services by continents and countries

Sl. No.	Country/Region	Value of Exports (in INR Billion)		Value of Exports (in USD Million)	
		Mode 1	Total	Mode 1	Total
	<b>Asia</b>	<b>741.3</b>	<b>936.7</b>	<b>11,052.3</b>	<b>13,965.9</b>
1	Japan	57.9	75.8	862.9	1,130.5
2	Singapore	314.9	352.9	4,695.1	5,261.3
3	Hong Kong	36.7	38.5	547.2	574.1
4	Other East Asian Countries	123.5	135.0	1,840.8	2,012.5
5	South Asia	51.6	93.9	769.3	1,399.6
6	West Asia	156.7	240.6	2,337.1	3,587.9
	<b>Europe</b>	<b>1,457.5</b>	<b>1,757.7</b>	<b>21,730.8</b>	<b>26,206.5</b>
7	Germany	138.0	163.6	2,057.2	2,439.8
8	Hungary	1.7	2.6	25.8	38.6
9	Netherlands	91.5	109.5	1,363.5	1,632.7
10	Switzerland	114.3	139.7	1,704.3	2,083.6
11	United Kingdom	664.1	826.8	9,901.0	12,327.0
12	Other European Countries	448.0	515.4	6,679.0	7,684.8
	<b>America</b>	<b>3,136.0</b>	<b>3,904.6</b>	<b>46,756.6</b>	<b>58,216.9</b>
13	United States	3,054.2	3,801.7	45,537.0	56,682.9
14	Canada	71.1	89.4	1,059.6	1,333.6
15	Latin America	10.7	13.4	160.0	200.4
	<b>Australia</b>	<b>122.2</b>	<b>195.6</b>	<b>1,822.0</b>	<b>2,916.4</b>
16	Australia	117.6	188.6	1,753.9	2,812.6
17	New Zealand	4.6	7.0	68.0	103.8
	<b>Other Countries</b>	<b>104.3</b>	<b>117.8</b>	<b>1,555.2</b>	<b>1,756.8</b>
	<b>All</b>	<b>5,561.3</b>	<b>6,912.4</b>	<b>82,916.9</b>	<b>103,062.5</b>

The largest destination for all categories of potential ICT-enabled services except licensing services was found to be the United States. With about 35% contribution to total exports of licensing services, the United Kingdom was the largest destination for this

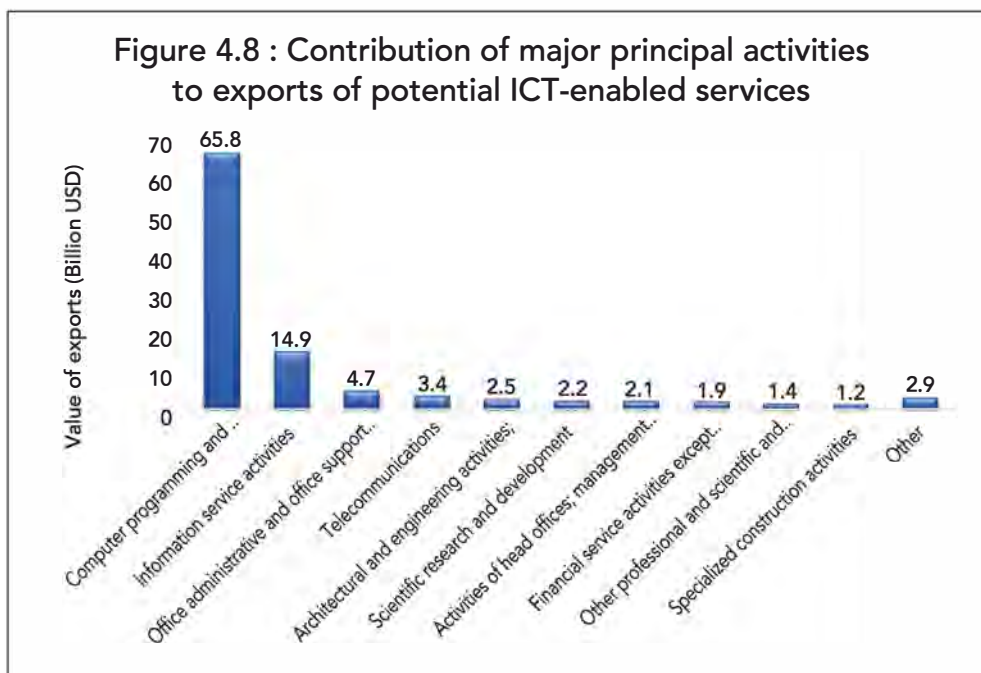
category followed by West Asia (25%) and the United States (20%). Other major export destinations of (i) Computer services (including computer software), (ii) Information services, (iii) Engineering, related technical services and R&D, (iv) Management, administration

and back office services and (v) Information services were technologically advanced and industrially developed countries like UK, Germany, Switzerland and Other European countries.

The top three export destinations of telecommunications services were US, Other European countries and UK. The other major destination was West Asia to which India exports lot of skilled and semi-skilled manpower. A strong association between export destinations of telecommunications and other ICT-enabled services was observed. More than 60% of India's telecommunications services exports in 2016-17 had been to countries that were also the major export destinations of other ICT-enabled services (See Annexure Tables A1 & A2).

and office support and other business support activities. Other important principal activities with significant contribution to total exports were Telecommunications, Architectural and engineering activities; Technical testing and analysis, Scientific research and development and Activities of head offices, management consultancy activities. (See Figure 4.8 and Annexure Table A3)

Apart from US (31%), the other two principal export destinations of Sales and marketing services (not including trade and leasing services) were Switzerland and Singapore, each having a share of about 19% of the total exports in this category. Similarly, other than US (32%), the two major destinations of India's exports of financial services were UK (15%) and West Asia



**4.3. Principal activity of potential ICT-enabled services exporting enterprises:**

Consistent with the services categories that had major contribution to total export of potential ICT-enabled services, the top three principal activities with a total contribution of about 83% were identified as Computer programming and consultancy and related activities, Information service activities and Office administrative

(13%) (See Annexure Tables A1 & A2).

The principal activities related to the core area of operations of the enterprises contributed the most to the export of potential ICT-enabled services during the FY 2016-17. Table 4.3 summarizes the share of top three principal activities to the exports of different types of potential ICT-enabled services.

Table 4.3: Principal activities with major contribution (%) to exports of potential ICT-enabled services (Top 3 activities highlighted)

ISIC Code (2-Digit)	Principal Activity	% contribution to total value of exports									
		Telecommunications	Computer Services	Sales and marketing	Information Services	Financial services	Management and back office services	Licensing services	Engineering services	Education services	All
26	Manufacture of computer and electronic and optical products	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.5
43	Specialized construction activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	1.2
58	Publishing activities	0.0	0.0	1.4	0.1	0.0	0.0	0.0	0.0	1.6	0.0
59	Motion picture and video and television programme production and sound recording and music publishing activities	0.3	0.0	0.0	0.5	0.0	0.0	30.6	0.0	0.0	0.1
60	Programming and broadcasting activities	3.8	0.0	2.7	0.7	0.0	0.0	16.8	0.0	0.0	0.2
61	Telecommunications	91.0	0.3	5.9	0.1	0.6	0.2	41.6	4.0	0.0	3.3
62	Computer programming and consultancy and related activities	0.7	85.7	29.0	27.0	3.6	32.3	7.7	29.3	4.4	63.9
63	Information service activities	4.0	11.4	3.8	48.9	9.4	22.8	1.3	6.4	0.0	14.4
64	Financial service activities except insurance and pension funding	0.0	0.0	0.0	0.0	77.0	4.1	0.0	0.0	0.0	1.9
70	Activities of head offices; management consultancy activities	0.0	0.2	0.7	19.7	3.7	4.4	0.0	0.1	0.0	2.1
71	Architectural and engineering activities; technical testing and analysis	0.0	0.2	2.8	0.0	0.1	0.1	0.0	19.3	0.0	2.4
72	Scientific research and development	0.1	0.0	0.6	0.0	0.3	0.0	0.0	18.6	0.2	2.1
73	Advertising and market research	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
74	Other professional and scientific and technical activities	0.0	0.3	18.7	1.3	2.5	2.1	0.0	5.4	0.1	1.3
82	Office administrative and office support and other business support activities	0.0	0.7	19.1	0.9	0.1	29.2	0.0	0.1	0.0	4.6
85	Education	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.3	0.1
All	All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

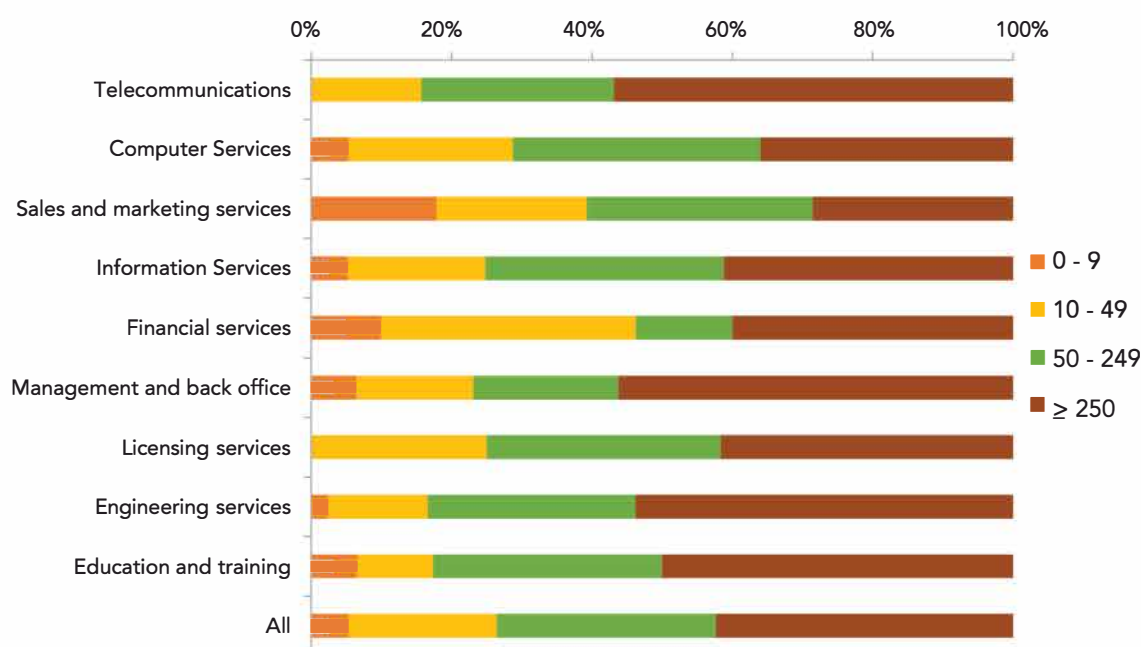
## EXPORTS OF ICT-ENABLED SERVICES

### 4.4. Exports of potential ICT-enabled services by enterprise size and turnover:

It was found in the survey that about 5% of the potential ICT-enabled services exporting enterprises employed up to 9 employees, 21% of the enterprises employed

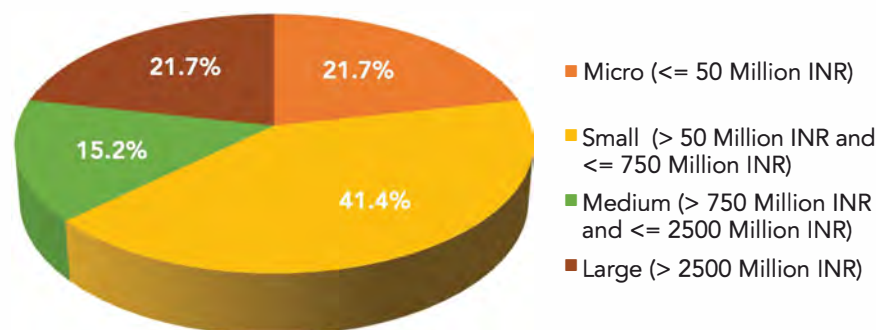
10 to 49 persons and another 31% of the enterprises engaged 50 to 249 employees during the FY 2016-17. However, the enterprises exporting 'potential ICT-enabled services' were predominantly (about 42%) large in size employing more than 250 persons (see Figure 4.9 and Annexure Table A6).

**Figure 4.9 : Potential ICT-enabled services exporting enterprises by enterprise size**



Recently, criteria for categorization of enterprises into Micro, Small and Medium in terms of turnover were approved by the Union Cabinet. As per the new criteria the proposed turnover thresholds are: Micro – up to 50 Million INR; Small – up to 750 Million INR and Medium – up to 2500 Million INR (INR 2.5 Billion). On the basis of this classification, it was found that about 22% of the potential ICT-enabled services exporting units belonged to 'micro' category,

**Figure 4.10 : Distribution of potential ICT-enabled services exporting enterprises by turnover**



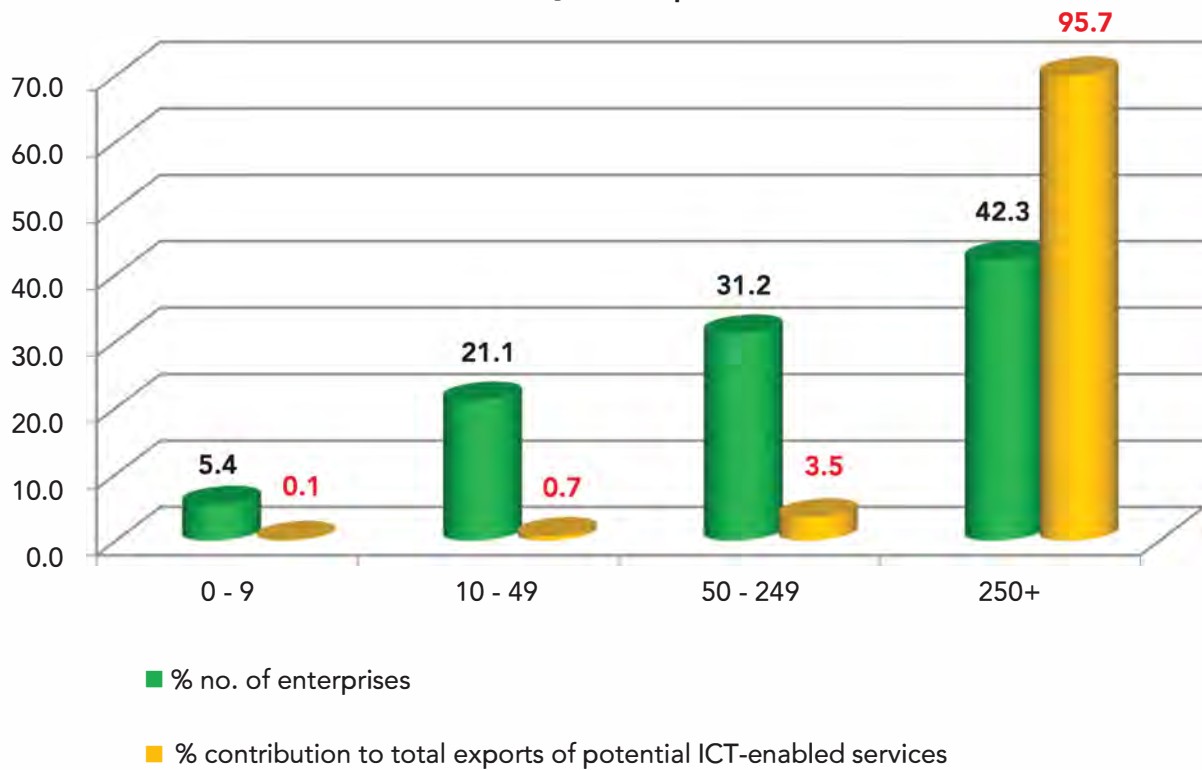


41% to 'small' category, 15% to 'medium' category while the remaining 22% were 'large' enterprises with total turnover value amounting to more than 2.5 Billion INR. (See Figure 4.10 and Annexure Table A7)

Although the number of enterprises with employment sizes 0 – 9 to 50 – 249 constituted about 58% of the

total potential ICT-enabled services exporters, their contribution to total exports during 2016-17 was a meager 4% while the 42% 'large' enterprises employing more than 250 persons contributed to 96% of the total value of exports. This clearly shows the dominance of large players in the export market of potential ICT-enabled services. (See Figure 4.11)

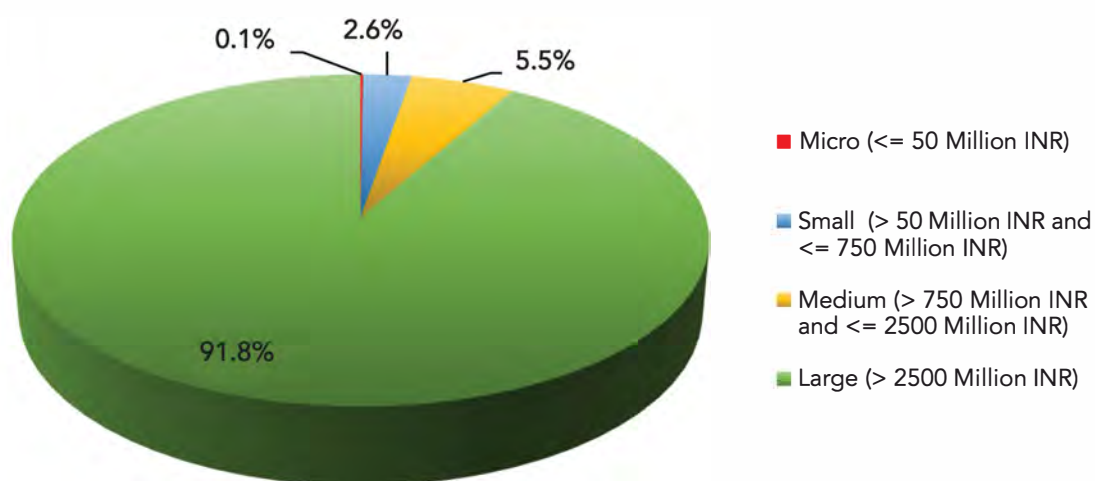
**Figure 4.11 : Exports (%) of potential ICT-enabled services by enterprise size**



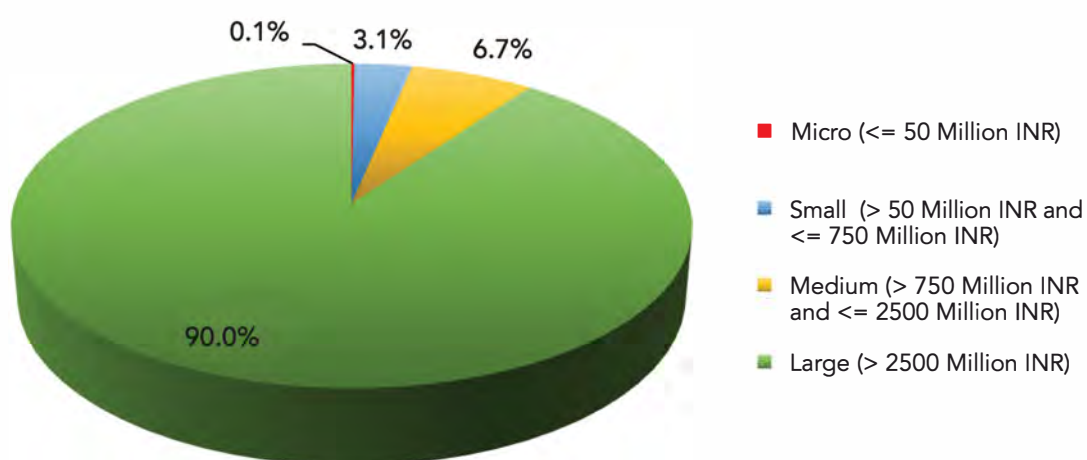
Large enterprises (with turnover more than 2500 Million INR) contributed the most to the export of potential ICT-enabled and ICT-enabled services export. Exports of potential ICT-enabled services from large enterprises was about 92% of total exports while the share of such

enterprises to total export of ICT-enabled services had been 90% in the year 2016-17. The contribution of micro enterprises to export of potential ICT-enabled and ICT-enabled services exports was insignificant (see figures 4.12, 4.13 and Annexure Tables A8, A9).

**Figure 4.12 : Exports of potential ICT-enabled services by enterprise turnover**



**Figure 4.13 : Exports of ICT-enabled (Mode 1) services by enterprise turnover**

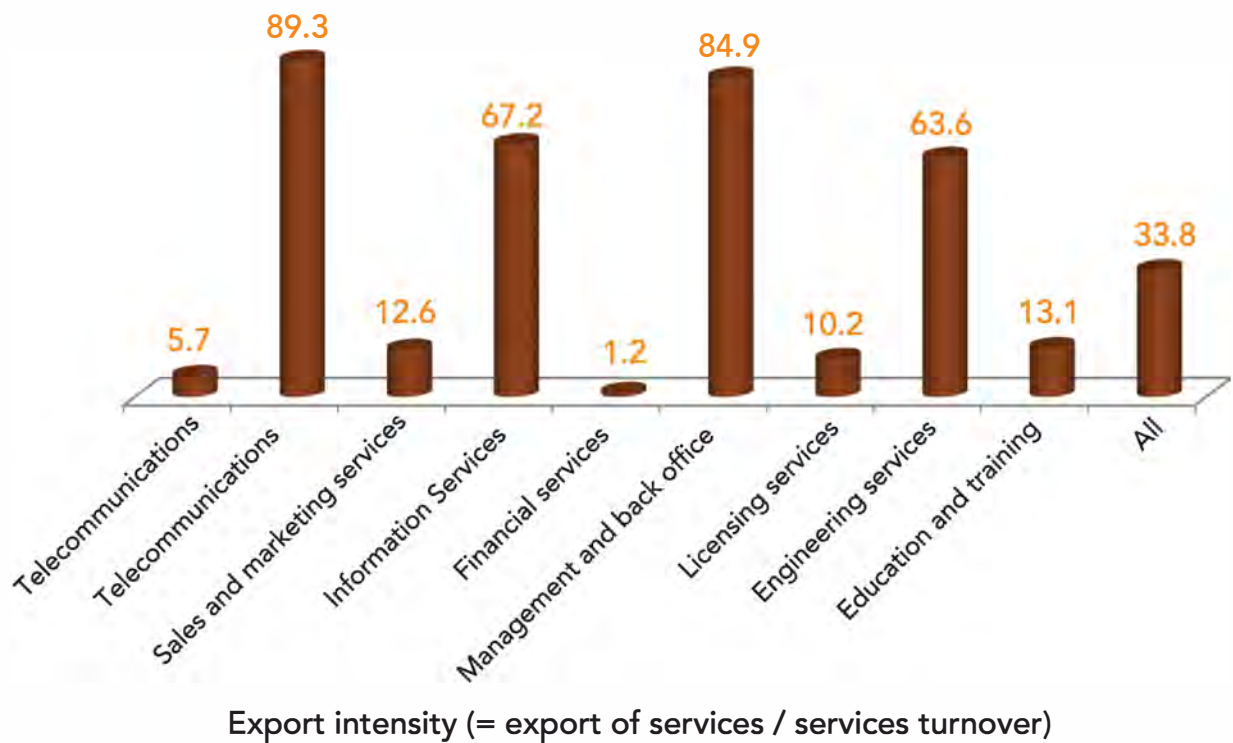


#### 4.5. Export intensity of potential ICT-enabled services:

Export intensity, defined as the ratio of aggregated export of services to total firm services sales, is a widely utilized measure of export performance. Higher levels of export intensity indicate an increasing level of reliance on export. The overall export intensity for the potential ICT-enabled services was 34%, indicating a reasonable level of dependence on exports. Among

the 9 categories of potential ICT-enabled services, export intensities of Computer services (including computer software), Management, administration and back office services were found to be as high as 89% and 85% respectively. Information services and Engineering, related technical services and R&D services with export intensities, 67% and 64% respectively, were also largely dependent on exports. Financial services had the lowest level of export intensity.

Figure 4.14 : Exports intensity (%) by category of services



# 5

## OBSERVATIONS, LIMITATIONS AND RECOMMENDATIONS





### 5.1 Observations and limitations:

Information in this survey was collected through self-compilation only. No field visit was made. Clarifications as well as assistance for compilation and submission of information were provided through e-mail and telephone. Submission of information through self-compilation has resulted in a significant saving in cost as well as time needed for conduct of the fieldwork of the survey. Moreover, adoption of enterprise-based approach for collection of information from the corporate headquarters covering all the establishments located across the country made the fieldwork for data collection convenient.

The excel format of the questionnaire designed in consultation with UNCTAD was found to be simple and easy to use by the respondents. An overwhelming majority (77%) of the units preferred electronic mode for submission of data. This helped to a large extent in speedy processing and compilation of collected information.

The estimates presented here are subject to the conventional sampling as well as non-sampling errors

attributable to any survey sampling exercise. In the absence of a Business Register (BR), although best effort has been made to prepare an exhaustive sampling frame (complete list of units) of enterprises for selection of samples, it has not been possible to ensure completeness of coverage for all categories of services. This may induce some non-sampling error in estimation. Non-availability of auxiliary information for the enterprises was a major impediment in adopting any sophisticated sampling procedure (other than SRSWOR) for enhancement of precision of the estimates.

### 5.2 Comparison of survey estimates with Balance of Payment (BoP) figures for the FY 2016-17:

In order to judge the consistency and robustness of the methodology used for producing the estimates of exports of potential ICT-enabled services utilizing the definition as proposed by UNCTAD and approved by the UNSC, the survey estimates have been compared with the corresponding comparable BoP figures for the year 2016-17 as compiled and published by the RBI. Table 5.1 shows the comparison of the two sets of figures:

Table 5.1: Survey estimates vis-à-vis Balance of Payment (BoP) figures for the FY 2016-17

Category of Service	Value of Exports (in million USD)	BoP Item	Value of Receipts (in million USD)
Telecommunications	2783	Telecommunications	2375
Computer services (including computer software)	65117	Software services	73651
Sales and Marketing Services (not including trade and leasing services)	670	<i>Corresponding category is not available in BoP data, comparable figures have been derived by identifying appropriate constituent of BoP items.</i>	1756
Information Services	6564		1107
Financial Services	1762		5099
Management, Administration and Back Office Services	13941		11132
Licensing Services	344		490
Engineering, related Technical Services and R&D	11737		5275
Education and Training Services	146		367
<b>Total of above</b>	<b>103063</b>		

The difference in survey estimates vis-à-vis BoP figures compiled by RBI could probably be attributed to the following:

(i) The survey estimates are based on information reported on invoice basis whereas the BoP figures are compiled by RBI on realization basis, i.e., after the payment against invoices are realized. Thus, there is a conceptual difference in the methodologies used for compilation in the two sets of figures. (ii) The difference in composition of the two sets of categories of services. (iii) Inadequacy in coverage for some of the services categories in the absence of availability of a business register at sectoral level.

Both the potentially ICT-enabled services categories as well as the BoP items are based on Extended Balance of Payment Services (EBOPS), 2010 classification and due to this there is an agreement between the two sets of figures at aggregate level. Thus, the methodology followed in the survey is capable of producing reasonably consistent estimates.

### 5.3 Recommendations:

5.3.1 A review of the global best practices for conducting surveys to capture data on international trade in services points to the requirement of a pre-established business directory, which essentially captures all enterprises involved in international trade. However, in India, a comprehensive business directory of service providers which is a prerequisite for selection of units for surveying is not available.

The Goods & Services Tax, implemented from 1<sup>st</sup> July, 2017, has provisions for registering all enterprises engaged in taxable interstate supply that include export and import of both goods and services. The Task Force on improving employment data constituted by the Ministry of Labour and Employment under the chairmanship of Vice Chairman, NITI Aayog has identified

GSTN as the ideal choice for identifying establishments for undertaking enterprise surveys. Although DGCIS has used multiple sources to prepare sector specific frames and collect information of units engaged in export of ICT-enabled services, it is recommended to use the GSTN registration data for frame preparation at the sectoral level. This is likely to bring additional units under the coverage of the survey and improve the quality of estimates.

5.3.2 The present survey has been conducted to capture data on export of ICT enabled services. Generally, firms that produce and export services are easy to identify and therefore, relatively easy to collect data on their exports. On the other hand, potentially all firms can import services, so the firms that should be surveyed are harder to identify. However, several developed countries have undertaken surveys to collect data on import of ICT enabled services. In future attempts may be made to capture data on import of ICT enabled services.

5.3.3 States have an important role to play in promoting India's services exports. With the states being encouraged by the Department of Commerce to formulate their own export strategies, attempt may be made to compile ICT enabled services export by states as well.

Development in information and communication technology has potential for rapid growth in employment, productivity and output. Measuring the impact of ICT is therefore critical to better understanding of the role of ICT in economic development of the country. With India's ICT sector growing at a brisk pace and the Government keen to hasten India's movement to a digital economy, there is a great demand for more comprehensive data on ICT enabled services from policymakers, researchers and international institutions. There is therefore a need to undertake survey on ICT enabled services at regular intervals to develop this critical database.

# ANNEXURE I







Table A1: Exports of ICT-enabled services by category of service and country/region (INR Billion)

Sl. No.	Country/ Region	Value of Exports (in INR Billion)									
		Telecommuni- cations	Computer Services (including Computer Software)	Sales and marketing services, not including trade and leasing services	Information Services	Financial services	Management, administration and back office services	Licensing services	Engineering, related technical services and R&D	Education and training services	All
	Asia	48.5	590.7	13.9	32.9	36.8	60.4	7.7	141.5	4.4	936.7
1	Japan	1.6	30.1	2.4	5.0	0.7	8.0	0.0	27.8	0.3	75.8
2	Singapore	9.9	271.1	8.6	15.9	7.5	24.0	0.8	14.7	0.4	352.9
3	Hong Kong	6.2	16.8	0.7	2.9	4.2	7.4	0.1	0.2	0.2	38.5
4	Other East Asian Countries	6.8	68.9	1.6	6.3	5.8	7.9	0.8	35.3	1.7	135.0
5	South Asia	4.0	79.4	0.0	1.2	2.8	1.1	0.5	4.0	1.0	93.9
6	West Asia	20.0	124.5	0.7	1.7	15.8	12.1	5.6	59.5	0.9	240.6
	Europe	73.4	898.0	16.9	101.8	27.9	377.3	9.4	252.0	1.0	1,757.7
7	Germany	0.8	74.0	0.2	7.3	0.8	12.7	0.1	67.7	0.1	163.6
8	Hungary	0.0	1.7	0.0	0.0	0.0	0.2	0.0	0.6	0.0	2.6
9	Netherlands	3.9	78.8	1.1	2.9	1.1	12.5	0.0	9.2	0.0	109.5
10	Switzerland	3.3	68.1	8.7	20.5	0.2	27.8	0.0	11.2	0.0	139.8
11	United Kingdom	29.1	428.8	1.1	26.7	17.6	271.0	8.1	44.2	0.3	826.8
12	Other European Countries	36.3	246.7	5.9	44.4	8.2	53.2	1.1	119.1	0.6	515.4
	America	52.1	2,664.9	13.9	284.8	38.8	461.5	4.7	381.0	2.9	3,904.6
13	United States	45.7	2,590.6	13.8	280.9	37.7	451.0	4.7	374.7	2.5	3,801.7
14	Canada	4.9	65.1	0.1	3.5	0.8	8.9	0.0	5.6	0.4	89.4
15	Latin America	1.5	9.2	0.0	0.3	0.3	1.6	0.0	0.7	0.1	13.4
	Australia	2.5	154.8	0.0	7.1	1.1	25.3	0.6	4.0	0.3	195.6
16	Australia	2.3	149.0	0.0	7.0	0.9	24.8	0.5	3.8	0.2	188.6
17	New Zealand	0.1	5.9	0.0	0.0	0.2	0.5	0.0	0.2	0.0	7.0
18	Other Countries	10.3	58.9	0.2	13.7	13.6	10.5	0.7	8.7	1.3	117.8
	All	186.7	4,367.4	44.9	440.2	118.2	935.0	23.1	787.2	9.8	6,912.4

Table A2: Exports of ICT-enabled services by category of service and country/region (USD Million)

Sl. No.	Country/ Region	Value of Exports (in USD Million)									
		Telecommuni- cations	Computer Services (including Computer Software)	Sales and marketing services, not including trade and leasing services	Information Services	Financial services	Management, administration and back office services	Licensing services	Engineering, related technical services and R&D	Education and training services	All
	Asia	723.0	8,807.8	206.6	490.7	548.2	900.0	115.1	2,109.6	64.9	13,965.9
1	Japan	24.5	448.8	35.0	74.3	9.7	118.7	0.2	415.1	4.2	1,130.5
2	Singapore	147.9	4,042.4	128.7	236.8	112.0	357.5	11.4	219.2	5.5	5,261.3
3	Hong Kong	92.5	249.8	9.8	43.1	63.1	109.8	0.7	2.8	2.4	574.1
4	Other East Asian Countries	101.5	1,026.9	23.3	93.7	86.3	117.8	11.7	526.0	25.4	2,012.5
5	South Asia	58.9	1,183.7	0.2	18.2	41.5	16.3	6.9	59.2	14.7	1,399.6
6	West Asia	297.7	1,856.2	9.6	24.7	235.6	180.0	84.1	887.2	12.8	3,587.9
	Europe	1,094.1	13,389.1	252.0	1,517.6	416.2	5,625.3	139.4	3,758.0	14.7	26,206.5
7	Germany	12.2	1,102.7	3.3	108.2	11.7	189.2	1.9	1,009.0	1.6	2,439.8
8	Hungary	0.3	25.5	0.0	0.1	0.1	3.7	0.0	8.8	0.1	38.6
9	Netherlands	58.0	1,174.6	15.7	43.7	16.1	186.0	0.6	137.7	0.4	1,632.7
10	Switzerland	48.8	1,015.4	129.9	305.2	3.2	413.7	0.3	167.0	0.2	2,083.6
11	United Kingdom	434.2	6,392.7	15.9	398.6	262.4	4,040.0	120.1	659.2	3.9	12,327.0
12	Other European Countries	540.5	3,678.2	87.3	661.8	122.7	792.9	16.6	1,776.4	8.5	7,684.8
	America	776.2	39,733.5	208.0	4,245.9	578.4	6,881.0	70.2	5,680.2	43.6	58,216.9
13	United States	681.4	38,625.8	206.3	4,188.8	562.8	6,724.4	69.9	5,586.6	37.0	56,682.9
14	Canada	73.3	970.9	1.7	52.8	11.8	132.9	0.3	84.0	5.9	1,333.6
15	Latin America	21.6	136.8	0.0	4.2	3.8	23.7	0.0	9.6	0.7	200.4
	Australia	36.5	2,308.6	0.6	105.0	17.0	377.1	8.4	59.2	4.2	2,916.4
16	Australia	34.4	2,221.0	0.6	104.5	13.7	370.2	7.8	57.0	3.6	2,812.6
17	New Zealand	2.1	87.6	0.0	0.6	3.2	6.9	0.6	2.2	0.6	103.8
18	Other Countries	153.0	878.1	2.6	204.6	202.4	157.1	10.6	129.6	18.8	1,756.8
	All	2,782.9	65,117.1	669.7	6,563.8	1,762.1	13,940.5	343.7	11,736.6	146.1	103,062.5

Table A3: Exports of ICT-enabled services by principal activity

Sl. No.	ISIC Code (2-Digit)	Principal Activity	Value of Exports		% to Total
			in INR Billion	in USD Million	
1	62	Computer programming and consultancy and related activities	4,415.3	65,831.6	63.9
2	63	Information service activities	998.2	14,882.2	14.4
3	82	Office administrative and office support and other business support activities	316.4	4,717.6	4.6
4	61	Telecommunications	231.2	3,447.2	3.3
5	71	Architectural and engineering activities; technical testing and analysis	165.3	2,463.8	2.4
6	72	Scientific research and development	147.7	2,202.6	2.1
7	70	Activities of head offices; management consultancy activities	141.8	2,114.2	2.1
8	64	Financial service activities except insurance and pension funding	128.9	1,922.3	1.9
9	74	Other professional and scientific and technical activities	91.7	1,367.3	1.3
10	43	Specialized construction activities	82.5	1,229.4	1.2
11	26	Manufacture of computer and electronic and optical products	33.7	502.7	0.5
12	32	Other manufacturing	23.0	343.5	0.3
13	60	Programming and broadcasting activities	15.0	223.9	0.2
14	69	Legal and accounting activities	13.5	201.4	0.2
15	29	Manufacture of motor vehicles and trailers and semi-trailers	12.2	182.0	0.2
16	59	Motion picture and video and television programme production and sound recording and music publishing activities	9.9	147.9	0.1
17	85	Education	9.1	135.2	0.1
18	49	Land transport and transport via pipelines	8.2	122.1	0.1
19	90	Creative and arts and entertainment activities	7.6	112.9	0.1
20	86	Human health activities	5.8	86.6	0.1
21	28	Manufacture of machinery and equipment n.e.c.	5.6	83.1	0.1
22	46	Wholesale trade and except of motor vehicles and motorcycles	5.5	82.6	0.1
23	73	Advertising and market research	5.4	80.2	0.1
24	27	Manufacture of electrical equipment	5.4	80.0	0.1
25	78	Employment activities	3.7	55.8	0.1
26	42	Civil engineering	3.6	54.0	0.1

Table A3: Exports of ICT-enabled services by principal activity

Sl. No.	ISIC Code (2-Digit)	Principal Activity	Value of Exports		% to Total
			in INR Billion	in USD Million	
27	30	Manufacture of other transport equipment	3.2	47.4	0.0
28	93	Sports activities and amusement and recreation activities	3.1	46.6	0.0
29	96	Other personal service activities	2.4	36.4	0.0
30	81	Services to buildings and landscape activities	2.3	34.8	0.0
31	84	Public administration and defence; compulsory social security	2.3	34.0	0.0
32	80	Security and investigation activities	2.3	33.7	0.0
33	66	Activities auxiliary to financial service and insurance activities	2.1	30.6	0.0
34	58	Publishing activities	1.7	26.0	0.0
35	97	Activities of households as employers of domestic personnel	1.7	26.0	0.0
36	06	Extraction of crude petroleum and natural gas	1.1	16.5	0.0
37	09	Mining support service activities	1.1	16.5	0.0
38	20	Manufacture of chemicals and chemical products	0.7	9.9	0.0
39	33	Repair and installation of machinery and equipment	0.5	7.7	0.0
40	56	Food and beverage service activities	0.4	6.4	0.0
41	79	Travel agency and tour operator and reservation service and related activities	0.4	5.9	0.0
42	31	Manufacture of furniture	0.3	4.7	0.0
43	51	Air transport	0.1	2.1	0.0
44	65	Insurance and reinsurance and pension funding except compulsory social security	0.1	2.2	0.0
45	77	Rental and leasing activities	0.1	1.2	0.0
46	45	Wholesale and retail trade and repair of motor vehicles and motorcycles	0.1	0.7	0.0
47	41	Construction of buildings	0.0	0.6	0.0
48	35	Electricity and gas and steam and air conditioning supply	0.0	0.4	0.0
49	47	Retail trade except of motor vehicles and motorcycles	0.0	0.1	0.0
50	25	Manufacture of fabricated metal products except machinery and equipment	0.0	0.1	0.0
		<b>All</b>	<b>6,912.4</b>	<b>103,062.5</b>	<b>100.0</b>

Table A4: Exports of ICT-enabled services by Principal activity and Category of Services (INR Billion)

Sl. No.	ISIC Code (2-Digit)	Country/ Region	Value of Exports (in INR Billion)										All	
			Telecommuni- cations	Computer Services (including Computer Software)	Sales and marketing services, not including trade and leasing services	Information Services	Financial services	Management, administration and back office services	Licensing services	Engineering, related technical services and R&D	Education and training services			
1	06	Extraction of crude petroleum and natural gas	-	0.1	-	-	-	-	-	-	-	1.0	0.0	1.1
2	09	Mining support service activities	-	-	-	-	-	-	-	-	-	1.1	-	1.1
3	20	Manufacture of chemicals and chemical products	-	-	0.1	0.6	-	-	-	-	-	-	-	0.7
4	25	Manufacture of fabricated metal products except machinery and equipment	-	-	-	-	-	-	-	-	-	0.0	-	0.0
5	26	Manufacture of computer and electronic and optical products	-	32.7	0.1	-	-	0.2	-	-	-	0.8	-	33.7
6	27	Manufacture of electrical equipment	0.0	1.4	-	-	1.1	2.2	-	-	-	0.7	-	5.4
7	28	Manufacture of machinery and equipment n.e.c.	-	0.3	0.2	0.1	0.0	0.1	-	-	-	4.9	-	5.6
8	29	Manufacture of motor vehicles and trailers and semi-trailers	-	-	-	-	-	-	-	-	-	12.2	-	12.2
9	30	Manufacture of other transport equipment	-	-	-	-	-	-	-	-	-	3.2	-	3.2
10	31	Manufacture of furniture	-	0.3	-	-	-	-	-	-	-	-	-	0.3
11	32	Other manufacturing	-	0.6	0.1	-	-	8.2	-	-	-	14.2	-	23.0
12	33	Repair and installation of machinery and equipment	-	0.5	-	-	-	-	-	-	-	-	-	0.5
13	35	Electricity and gas and steam and air conditioning supply	-	-	-	-	-	-	-	-	-	0.0	-	0.0
14	41	Construction of buildings	-	-	-	-	-	-	-	-	-	0.0	-	0.0
15	42	Civil engineering	-	-	-	-	-	-	-	-	-	3.6	-	3.6
16	43	Specialized construction activities	-	-	-	-	-	-	-	-	-	82.5	-	82.5
17	45	Wholesale and retail trade and repair of motor vehicles and motorcycles	-	-	-	-	-	0.0	-	-	-	-	-	0.0

'- represents non-reporting or zero-value of exports

Table A4: Exports of ICT-enabled services by Principal activity and Category of Services (INR Billion)

Sl. No.	ISIC Code (2-Digit)	Country/ Region	Value of Exports (in INR Billion)									All	
			Telecommuni- cations	Computer Services (including Compute Software)	Sales and marketing services, not including trade and leasing services	Information Services	Financial services	Management, administration and back office services	Licensing services	Engineering, related and R&D	Education and training services		
18	46	Wholesale trade and except of motor vehicles and motorcycles	-	0.7	2.5	-	0.3	1.9	-	0.1	-	-	5.5
19	47	Retail trade except of motor vehicles and motorcycles	-	0.0	-	0.0	-	-	-	-	-	-	0.0
20	49	Land transport and transport via pipelines	-	-	-	-	-	8.2	-	-	-	-	8.2
21	51	Air transport	-	-	-	-	0.1	-	-	-	-	-	0.1
22	56	Food and beverage service activities	-	0.4	-	-	-	-	-	-	-	-	0.4
23	58	Publishing activities	0.1	0.0	0.6	0.5	-	0.2	-	0.2	0.2	0.2	1.7
24	59	Motion picture and video and television programme production and sound recording and music publishing activities	0.5	-	-	2.3	-	-	7.0	0.0	-	-	9.9
25	60	Programming and broadcasting activities	7.0	-	1.2	2.9	-	-	3.9	-	-	-	15.0
26	61	Telecommunications	169.8	14.7	2.7	0.2	0.7	1.7	9.6	31.8	-	-	231.2
27	62	Computer programming and consultancy and related activities	1.3	3,742.6	13.0	118.8	4.3	302.5	1.8	230.7	0.4	0.4	4,415.3
28	63	Information service activities	7.6	499.3	1.7	215.1	11.1	212.8	0.3	50.3	-	-	998.2
29	64	Financial service activities except insurance and pension funding	-	0.0	-	-	91.0	37.9	-	0.1	-	-	128.9
30	65	Insurance and reinsurance and pension funding except compulsory social security	-	0.0	-	-	-	0.1	-	-	-	-	0.1
31	66	Activities auxiliary to financial service and insurance activities	-	-	-	-	1.6	0.2	-	0.2	-	-	2.1
32	69	Legal and accounting activities	-	-	-	-	0.0	13.5	-	-	-	-	13.5
33	70	Activities of head offices; management consultancy activities	-	8.0	0.3	86.6	4.4	41.6	0.0	0.9	0.0	0.0	141.8
34	71	Architectural and engineering activities; technical testing and analysis	-	10.7	1.3	0.1	0.1	1.0	-	152.0	-	-	165.2

'-' represents non-reporting or zero-value of exports

Table A4: Exports of ICT-enabled services by Principal activity and Category of Services (INR Billion)

Sl. No.	ISIC Code (2-Digit)	Country/ Region	Value of Exports (in INR Billion)									
			Telecommunications	Computer Services (including Computer Software)	Sales and marketing services, not including trade and leasing services	Information Services	Financial services	Management, administration and back office services	Licensing services	Engineering, related technical services	Education and training services	All
35	72	Scientific research and development	0.2	0.1	0.3	-	0.3	-	-	146.8	0.0	147.7
36	73	Advertising and market research	0.0	1.6	3.6	-	0.1	-	-	-	-	5.4
37	74	Other professional and scientific and technical activities	-	12.2	8.4	5.9	3.0	19.7	-	42.4	0.0	91.7
38	77	Rental and leasing activities	-	-	-	-	-	0.0	-	0.0	-	0.1
39	78	Employment activities	-	0.1	-	-	-	3.7	-	-	-	3.7
40	79	Travel agency and tour operator and reservation service and related activities	-	-	-	-	-	0.4	-	-	-	0.4
41	80	Security and investigation activities	-	0.0	0.1	-	-	0.1	-	2.1	-	2.3
42	81	Services to buildings and landscape activities	-	-	-	-	-	-	-	2.3	-	2.3
43	82	Office administrative and office support and other business support activities	0.1	30.0	8.6	3.8	0.1	272.9	-	0.8	-	316.4
44	84	Public administration and defence; compulsory social security	-	-	-	-	-	-	-	2.3	-	2.3
45	85	Education	-	0.0	0.0	0.0	-	-	-	-	9.0	9.1
46	86	Human health activities	-	-	-	1.5	-	4.3	-	-	-	5.8
47	90	Creative and arts and entertainment activities	-	6.0	0.2	-	-	0.9	0.5	-	-	7.6
48	93	Sports activities and amusement and recreation activities	-	3.0	0.1	-	-	-	-	-	-	3.1
49	96	Other personal service activities	-	1.8	0.0	-	-	0.5	-	-	0.1	2.4
50	97	Activities of households as employers of domestic personnel	-	-	-	1.7	-	-	-	-	-	1.7
		All	186.6	4,367.4	44.9	440.2	118.2	935.0	23.1	787.2	9.8	6,912.4

‘-’ represents non-reporting or zero-value of exports



Table A5: Exports of ICT-enabled services by Principal activity and Category of Services (USD Million)

Sl. No.	ISIC Code (2-Digit)	Country/ Region	Value of Exports (in USD Million)									All	
			Telecommunications	Computer Services (including Computer Software)	Sales and marketing services, not including trade and leasing services	Information Services	Financial services	Management, administration and back office services	Licensing services	Engineering, related technical services and R&D	Education and training services		
1	06	Extraction of crude petroleum and natural gas	-	2.0	-	-	-	-	-	-	14.3	0.2	16.5
2	09	Mining support service activities	-	-	-	-	-	-	-	-	16.5	-	16.5
3	20	Manufacture of chemicals and chemical products	-	-	1.3	8.5	-	-	-	-	-	-	9.9
4	25	Manufacture of fabricated metal products except machinery and equipment	-	-	-	-	-	-	-	-	0.1	-	0.1
5	26	Manufacture of computer and electronic and optical products	-	487.0	1.4	-	-	2.8	-	-	11.5	-	502.7
6	27	Manufacture of electrical equipment	0.1	20.8	-	-	15.9	32.7	-	-	10.5	-	80.0
7	28	Manufacture of machinery and equipment n.e.c.	-	4.3	2.6	0.7	0.0	1.7	-	-	73.8	-	83.1
8	29	Manufacture of motor vehicles and trailers and semi-trailers	-	-	-	-	-	-	-	-	182.0	-	182.0
9	30	Manufacture of other transport equipment	-	-	-	-	-	-	-	-	47.4	-	47.4
10	31	Manufacture of furniture	-	4.7	-	-	-	-	-	-	-	-	4.7
11	32	Other manufacturing	-	9.3	1.2	-	-	121.9	-	-	211.2	-	343.5
12	33	Repair and installation of machinery and equipment	-	7.7	-	-	-	-	-	-	-	-	7.7
13	35	Electricity and gas and steam and air conditioning supply	-	-	-	-	-	-	-	-	0.4	-	0.4
14	41	Construction of buildings	-	-	-	-	-	-	-	-	0.6	-	0.6
15	42	Civil engineering	-	-	-	-	-	-	-	-	54.0	-	54.0
16	43	Specialized construction activities	-	-	-	-	-	-	-	-	1,229.4	-	1,229.4
17	45	Wholesale and retail trade and repair of motor vehicles and motorcycles	-	-	-	-	-	0.7	-	-	-	-	0.7
18	46	Wholesale trade and except of motor vehicles and motorcycles	-	10.3	37.5	-	4.4	28.8	-	-	1.7	-	82.6

'-' represents non-reporting or zero-value of exports

Table A5: Exports of ICT-enabled services by Principal activity and Category of Services (USD Million)

Sl. No.	ISIC Code (2-Digit)	Country/ Region	Value of Exports (in USD Million)										All		
			Telecommuni- cations	Computer Services (including Computer Software)	Sales and marketing services, not including trade and leasing services	Information Services	Financial services	Management, administration and back office services	Licensing services	Engineering, related technical services and R&D	Education and training services				
19	47	Retail trade except of motor vehicles and motorcycles	-	0.0	-	0.1	-	-	-	-	-	-	-	-	0.1
20	49	Land transport and transport via pipelines	-	-	-	-	-	122.1	-	-	-	-	-	-	122.1
21	51	Air transport	-	-	-	-	-	-	2.1	-	-	-	-	-	2.1
22	56	Food and beverage service activities	-	6.4	-	-	-	-	-	-	-	-	-	-	6.4
23	58	Publishing activities	0.9	0.7	9.2	7.0	-	2.5	-	-	-	-	3.5	2.3	26.0
24	59	Motion picture and video and television programme production and sound recording and music publishing activities	8.0	-	-	34.8	-	-	-	-	105.0	0.1	-	-	147.9
25	60	Programming and broadcasting activities	104.9	-	17.8	43.6	-	-	-	-	57.6	-	-	-	223.9
26	61	Telecommunications	2,531.8	218.5	39.6	3.5	10.9	25.9	142.9	474.1	-	-	-	-	3,447.2
27	62	Computer programming and consultancy and related activities	19.3	55,801.8	194.1	1,771.1	63.6	4,509.6	26.6	3,439.2	6.4	65,831.6	-	-	65,831.6
28	63	Information service activities	112.6	7,444.1	25.3	3,207.6	165.8	3,173.0	4.3	749.4	-	14,882.2	-	-	14,882.2
29	64	Financial service activities except insurance and pension funding	-	0.2	-	-	-	1,356.1	564.8	-	1.1	-	-	-	1,922.2
30	65	Insurance and reinsurance and pension funding except compulsory social security	-	0.4	-	-	-	1.7	-	-	-	-	-	-	2.2
31	66	Activities auxiliary to financial service and insurance activities	-	-	-	-	24.2	2.8	-	3.5	-	-	-	-	30.6
32	69	Legal and accounting activities	-	-	-	-	0.2	201.2	-	-	-	-	-	-	201.4
33	70	Activities of head offices; management consultancy activities	-	119.4	4.4	1,291.2	65.8	620.3	0.0	13.0	0.0	0.0	0.0	0.0	2,114.2
34	71	Architectural and engineering activities; technical testing and analysis	-	159.9	18.9	1.4	2.1	14.9	-	2,266.6	-	-	-	-	2,463.8
35	72	Scientific research and development	3.5	1.8	3.8	-	4.8	-	-	2,188.5	0.3	2,202.6	-	-	2,202.6
36	73	Advertising and market research	0.4	24.3	53.4	-	2.1	-	-	-	-	-	-	-	80.2

'- represents non-reporting or zero-value of exports

Table A5: Exports of ICT-enabled services by Principal activity and Category of Services (USD Million)

Sl. No.	ISIC Code (2-Digit)	Country/ Region	Value of Exports (in USD Million)									
			Telecommunications	Computer Services (including Computer Software)	Sales and marketing services, not including trade and leasing services	Information Services	Financial services	Management, administration and back office services	Licensing services	Engineering, related technical services and R&D	Education and training services	All
37	74	Other professional and scientific and technical activities	-	182.4	125.6	88.4	44.4	294.3	-	632.1	0.2	1,367.3
38	77	Rental and leasing activities	-	-	-	-	-	0.7	-	0.6	-	1.2
39	78	Employment activities	-	1.3	-	-	-	54.5	-	-	-	55.8
40	79	Travel agency and tour operator and reservation service and related activities	-	-	-	-	-	5.9	-	-	-	5.9
41	80	Security and investigation activities	-	0.7	1.1	-	-	1.2	-	30.6	-	33.7
42	81	Services to buildings and landscape activities	-	-	-	-	-	-	-	34.8	-	34.8
43	82	Office administrative and office support and other business support activities	1.3	447.2	128.2	57.4	1.9	4,069.4	-	12.2	-	4,717.6
44	84	Public administration and defence; compulsory social security	-	-	-	-	-	-	-	34.0	-	34.0
45	85	Education	-	0.3	0.0	0.1	-	-	-	-	134.8	135.2
46	86	Human health activities	-	-	-	22.4	-	64.2	-	-	-	86.6
47	90	Creative and arts and entertainment activities	-	89.2	3.2	-	-	13.3	7.1	-	-	112.9
48	93	Sports activities and amusement and recreation activities	-	45.4	1.1	-	-	-	-	-	-	46.6
49	96	Other personal service activities	-	27.2	0.1	-	-	7.3	-	-	1.8	36.4
50	97	Activities of households as employers of domestic personnel	-	-	-	26.0	-	-	-	-	-	26.0
		All	2,782.9	65,117.1	669.7	6,563.8	1,762.1	13,940.5	343.7	11,736.6	146.1	103,062.5

'-' represents non-reporting or zero-value of exports

ANNEXURE I

Table A6: Percentage distribution of number of ICT-enabled services exporting enterprises by employment size

Sl. No	Category of Service	Enterprise Employment size				All
		(0 - 9)	(10 - 49)	(50 - 249)	(≥250)	
1	Telecommunications	0.0	15.7	27.5	56.9	100.0
2	Computer Services (including Computer Software)	5.3	23.4	35.2	36.0	100.0
3	Sales and marketing services, not including trade and leasing services	17.9	21.4	32.1	28.6	100.0
4	Information Services	5.2	19.6	34.0	41.2	100.0
5	Financial services	10.0	36.3	13.8	40.0	100.0
6	Management, administration and back office services	6.5	16.6	20.7	56.2	100.0
7	Licensing services	0.0	25.0	33.3	41.7	100.0
8	Engineering, related technical services and R&D	2.5	14.1	29.6	53.8	100.0
9	Education and training services	6.5	10.9	32.6	50.0	100.0
	All	5.4	21.1	31.2	42.3	100.0

Table A7: Percentage distribution of number of ICT-enabled services exporting enterprises by category of service and turnover

Sl. No.	Category of Service	Turnover Class				Total
		Micro	Small	Medium	Large	
1	Telecommunications	9.8	27.5	13.7	49.0	100.0
2	Computer Services (including Computer Software)	27.2	44.5	11.7	16.5	100.0
3	Sales and marketing services, not including trade and leasing services	21.4	35.7	17.9	25.0	100.0
4	Information Services	23.5	45.8	15.7	15.0	100.0
5	Financial services	13.8	32.5	20.0	33.8	100.0
6	Management, administration and back office services	14.2	38.5	18.9	28.4	100.0
7	Licensing services	8.3	25.0	8.3	58.3	100.0
8	Engineering, related technical services and R&D	12.1	37.2	21.1	29.6	100.0
9	Education and training services	21.7	41.3	26.1	10.9	100.0
	All	21.7	41.4	15.2	21.7	100.0

Note: Using Annual Turnover, the enterprises have been classified into micro, small, medium and large with the following criteria: Micro ( $\leq 50$  Million INR); Small ( $> 50$  Million INR and  $\leq 750$  Million INR); Medium ( $> 750$  Million INR and  $\leq 2500$  Million INR); Large ( $> 2500$  Million INR).

Table A8: Percentage contribution of different types of enterprises to export of potential ICT-enabled services

Sl. No.	Category of Service	Type of Enterprise				All
		Micro	Small	Medium	Large	
1	Telecommunications	0.20	3.04	3.15	93.61	100
2	Computer Services (including Computer Software)	0.12	2.17	4.18	93.53	100
3	Sales and marketing services, not including trade and leasing services	0.40	14.25	27.11	58.24	100
4	Information Services	0.22	3.84	9.56	86.38	100
5	Financial services	0.20	7.78	12.99	79.03	100
6	Management, administration and back office services	0.07	2.35	7.00	90.58	100
7	Licensing services	0.06	2.43	2.56	94.94	100
8	Engineering, related technical services and R&D	0.10	3.21	7.69	89.01	100
9	Education and training services	2.19	14.75	61.10	21.96	100
	All	0.12	2.57	5.52	91.79	100

Table A9: Percentage contribution of different types of enterprises to export of ICT-enabled (Mode 1) services

Sl. No.	Category of Service	Type of Enterprise				All
		Micro	Small	Medium	Large	
1	Telecommunications	0.20	3.06	3.18	93.57	100
2	Computer Services (including Computer Software)	0.16	2.93	5.65	91.26	100
3	Sales and marketing services, not including trade and leasing services	0.40	13.95	27.20	58.45	100
4	Information Services	0.22	3.80	9.63	86.36	100
5	Financial services	0.21	7.64	13.50	78.65	100
6	Management, administration and back office services	0.07	2.35	7.01	90.57	100
7	Licensing services	0.06	2.43	2.56	94.94	100
8	Engineering, related technical services and R&D	0.11	3.69	8.82	87.37	100
9	Education and training services	3.61	28.58	46.67	21.14	100
	All	0.15	3.14	6.71	90.00	100

Note: Using Annual Turnover, the enterprises have been classified into micro, small, medium and large with the following criteria: Micro (<= 50 Million INR); Small (> 50 Million INR and <= 750 Million INR); Medium (> 750 Million INR and <= 2500 Million INR); Large (> 2500 Million INR).

# ANNEXURE II







Government of India  
Ministry of Commerce & Industry  
Directorate General of Commercial Intelligence & Statistics  
565, Anandapur, Ward No. 108, Sector – 1  
Plot No. – 22, ECADP, Kolkata – 700107  
<http://www.dgciskol.gov.in>



CONFIDENTIAL  
FORM ICT01

## EXPORTS OF ICT - ENABLED SERVICES– 2016-17

This exercise is conducted under the Collection of Statistics Act, 2008, which makes your submission legally binding and mandatory. This form collects information that will be used in compiling disaggregate level trade statistics on exports of services delivered remotely over ICT networks (so-called ICT-enabled services).

The Collection of Statistics Act, 2008 guarantees the confidentiality of the information provided via this form. All information provided will be treated as confidential and individual level information will not be made available in the public domain.

Please return the completed form within one month from date of receipt of the notice. You may also download an MS Excel file of the format from the website of DG CIS, [www.dgciskol.nic.in](http://www.dgciskol.nic.in).

Some of the data requested may not be readily available from your records. In these cases, careful estimates will suffice.

A 'NIL' return is required if your firm was not in operation during 2016-17. Please state the effective date your company ceased operations.

After you complete this form, please retain a copy for your records. Please submit the completed form to the following address:

Director (Services Statistics Division), DG CIS, 565 Anandapur, Kolkata – 700107  
or email: [dircservices.dgcis@nic.in](mailto:dircservices.dgcis@nic.in), [d.mandal.dgcis@gov.in](mailto:d.mandal.dgcis@gov.in), [admindgcis@dgcis.gov.in](mailto:admindgcis@dgcis.gov.in).

For more information or assistance, please contact the officers-in-charge at Services Statistics Division of DG CIS:

Telephone: 033-24434050

E-mail : [a.saha.dgcis@nic.in](mailto:a.saha.dgcis@nic.in), [dircservices.dgcis@nic.in](mailto:dircservices.dgcis@nic.in)

### Reporting Period

Data reported in this form should relate to the financial year ending March 2017 (1<sup>st</sup> April 2016 to 31<sup>st</sup> March 2017). However, if the accounting year is different from the financial year, please state your reporting period and report data according to this period. The reporting period should cover at least 50% of the reference financial year.

From

To

Value figures in this return should be reported in Indian Rupee only.



## EXPLANATORY NOTES

**Residents and Non-residents:** A non-resident is any individual, enterprise, or other organization ordinarily domiciled in an economy other than India.

Subsidiaries of non-resident enterprises in India are residents of India. Similarly, foreign subsidiaries of Indian enterprises are non-residents.

**Conversion to Indian Rupee:** Foreign currencies should be converted to Indian Rupee (INR) using average exchange rate(s) for the period of reference.

**Partner economy:** The partner economy is defined as the country where the non-resident importer resides.

**Exports of services:** Exports of services are sales of services provided to non-resident importers. They correspond to services for which payment is made directly to your enterprise by a non-resident entity (including a foreign affiliate of your enterprise). Exports include services provided by your enterprise or its employees working abroad, or some other resident entity on whose behalf your enterprise receives payment. Exports exclude services that are provided to non-residents by your enterprise and paid for through other unrelated resident entities.

**Modes of Delivery of Services:** Information on the following three modes of delivery of services is to be reported in this questionnaire:

i. Delivery of services remotely, not on-site or in-person (*Mode 1, or cross-border supply*), takes place when the service is remotely supplied to

a customer abroad. This is similar to trade in goods where the product is delivered across international borders and the consumer and the supplier remain in their respective countries. For example, a law firm may deliver legal advice by phone to a foreign enterprise or individual, a physician may provide a medical diagnosis to a patient via e-mail or a financial services supplier may supply portfolio management or brokerage services across an international border via the Internet.

ii. Delivery of services to foreign entities/persons, temporarily in India (*Mode 2, or consumption abroad*), takes place when the service is provided to a non-resident customer travelling to India. This also applies to services performed on the property of a non-resident customer. Tourist activities such as in-person visits to museums and theatres and travel abroad to receive medical treatment or attend language courses are typical examples. Services such as ship repair or aircraft refurbishment abroad, where only the property of the customer moves, or is situated abroad, are also covered.

iii. Delivery through on-site by deputing employees abroad (*Mode 4, or presence of natural persons*), takes place when an employee of your enterprise temporarily travels abroad to provide services to non-resident customers.

## A. Identification of the Service Provider

ORGANIZATION PARTICULARS				
01	Name			
02	Address of Corporate HQ/ Admin Office	Telephone		Fax
		Mobile		Email
		Website		
03	State			
04	City			
05	Year of Establishment			
RESPONDENT DETAILS				
06	Name			
07	Address (if other than HQ/Admin Office)			
08	Designation			
09	Telephone Number(s)			
10	Email			

## B. General Information

1. Was your enterprise controlled by another enterprise as on 31 March 2017?

[An enterprise is controlled when a different unit owns directly or indirectly, more than 50 per cent of the equity or shareholders' voting rights.]

YES  please go to question 2

NO  please go to question 3

2. What was the location of the controlling unit of your enterprise as on 31 March 2017?

Name of country: \_\_\_\_\_

3. How many persons were employed in your enterprise as on 31 March 2017? \_\_\_\_\_

[An employee is a person who works for an employer on the basis of a contract of employment and receives compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind. Part-time workers, seasonal workers, persons on strike or on short-term leave are all considered employees, while volunteers or workers on long-term leave are excluded.]

4. What proportion of persons was employed by your enterprise as on 31 March 2017?

Male (%): \_\_\_\_\_

Female (%): \_\_\_\_\_

5. What was the total value of turnover made by your enterprise during 2016 – 17?

*[This includes only turnover of your enterprise for the period 1 April 2016 to 31 March 2017; do not include affiliates or other group-related enterprises.]*

*Turnover comprises the totals invoiced by the enterprise during the reference period; this corresponds to market sales of goods or services supplied to third parties; include all duties and taxes on the goods or services invoiced by the unit with the exception of value-added tax invoiced by the unit to its customer and other similar deductible taxes directly linked to turnover; include all other charges (transport, packaging, etc.) passed on to the customer. Price reductions, rebates and discounts as well as the value of returned packing must be deducted. Exclude income classified as other operating income, financial income and extraordinary income in company accounts; as well as any operating subsidies received from public authorities.]*

Total Turnover (in INR)	from services sold (in INR)	
	other than services (in INR)	

6. What was the principal activity of the enterprise as on 31 March 2017? \_\_\_\_\_  
*[Please refer to Annexure I for applicable activity code of your enterprise]*

7. What was the total value of exports of services of your enterprise during 2016 – 17?

*[This includes only exports of your enterprise for the period 1 April 2016 to 31 March 2017; do not include exports of affiliates or of other group-related enterprises.]*

Total exports of services (in INR)	
Of which intra group trade (in INR)	

8. During 2016 – 17 did your enterprise have a subsidiary or any other commercial presence in an overseas country?

Yes

No

Do Not Know

9. During 2016 – 17 did your enterprise deliver services abroad by one of its employees, temporarily working abroad?

Yes

No

Do Not Know

10. During 2016 – 17 did your enterprise deliver services to overseas customers, temporarily present in India?

Yes

No

Do Not Know

**C. Services exports to be included**

To help you identify which parts of the questionnaire relate to your business, please complete the following table. Use the lists of the 9 main service types covered in the annex to this questionnaire.

Has your enterprise exported services belonging to the following broad categories during 2016-17?

Export of services is defined as the provision of services by your enterprise to a non-resident unit. Please exclude sales through a foreign subsidiary of your enterprise domiciled abroad (mode 3 transactions).

Category of service	Yes / No	If yes, please complete the corresponding section as indicated below in Part D of this questionnaire
Telecommunications		D.1
Computer services (including computer software)		D.2
Sales and marketing services, not including trade and leasing services		D.3
Information services <i>(includes among others telemedicine/health services, as well as audiovisual services, on-line content and recordings of live performance)</i>		D.4
Financial services		D.5
Management, administration and back office services <i>(includes among others online reservation services for accommodation, online staffing services, telephone call-centre services and other telephone-based support services)</i>		D.6
Licensing services		D.7
Engineering, related technical services and R&D		D.8
Education and training services		D.9

**Note:**

In case of doubt about the content of these categories, please refer to the explanations given at the beginning of each corresponding section.

## D. Details of services exports

### D. 1. Exports of Telecommunications Services during

Telecommunications include: (i) Telephony and other telecommunications services; (ii) Internet telecommunications services; (iii) Broadcasting services.

Telecommunications			
Total Value of Exports/Receipts of (in INR)	% of Exports delivered		
	to foreign entities/persons from office in India over internet, telephone or other ICT networks @	to foreign entities/persons, temporarily in India#	through on-site services by deputing employees abroad\$
(1)	(2)	(3)	(4)

@: Include receipts from international telephone calls and any other telecommunications services delivered remotely across the border through ICT networks. Also include receipts from international roaming charges.

#: To cover services delivered in-person to a client travelling to meet the service supplier.

\$: Include on-site services delivered by employees travelling to clients' offices.

Country-wise breakup of Telecommunication Exports			
Sl. No.	Country/Region	Value of total exports (in INR)	% of exports delivered to foreign entities/persons from office in India over ICT networks
(1)	(2)	(3)	(4)
01	Japan		
02	Singapore		
03	Hong Kong		
04	Other East Asian Countries		
05	South Asia		
06	West Asia		
07	Germany		
08	Hungary		
09	Netherlands		
10	Switzerland		
11	United Kingdom		
12	Other European Countries		
13	United States		
14	Canada		
15	Latin America		
16	Australia		
17	New Zealand		
18	Other Countries (specify)		
19	All		

ANNEXURE II

**D. 2. Exports of Computer Services (including computer software)**

Computer services (including computer software) include: (i) Licensing services for the right to use computer software; (ii) Software downloads ; (iii) Software originals ; (iv) On-line games; (v) On-line software; (vi) IT consulting and support services; (vii) Hosting and information technology (IT) infrastructure provisioning services ; (viii) IT infrastructure and network management services ; (ix) Maintenance and repair services of computers and peripheral equipment ; (x) IT design and development services for applications ; (xi) Other education and training services n.e.c.

Computer services			
Total Value of Exports/Receipts of (in INR)	% of Exports delivered		
	to foreign entities/persons from office in India over internet, telephone or other ICT networks @	to foreign entities/persons, temporarily in India#	through on-site services by deputing employees abroad\$
(1)	(2)	(3)	(4)

@: Include receipts from exports of software and IT support services delivered over the phone, e-mail, cloud-computing, online platforms or any other remote delivery through ICT networks.

#: To cover services delivered in-person to a client travelling to meet the service supplier.

\$: Include receipts from on-site services delivered by employees travelling to clients' offices.

Country-wise breakup of Computer services			
Sl. No.	Country/Region	Value of total exports (in INR)	% of exports delivered to foreign entities/persons from office in India over ICT networks
(1)	(2)	(3)	(4)
01	Japan		
02	Singapore		
03	Hong Kong		
04	Other East Asian Countries		
05	South Asia		
06	West Asia		
07	Germany		
08	Hungary		
09	Netherlands		
10	Switzerland		
11	United Kingdom		
12	Other European Countries		
13	United States		
14	Canada		
15	Latin America		
16	Australia		
17	New Zealand		
18	Other Countries (specify)		
19	All		

### D. 3. Exports of Sales and Marketing Services (not including trade and leasing services)

*Sales and marketing services, not including trade and leasing services, include: (i) Advertising services and provision of advertising space or time; (ii) Market research and public opinion polling services; (iii) Advertising and related photography services; (iv) Convention and trade show assistance and organisation services.*

Sales and marketing services			
Total Value of Exports/Receipts of (in INR)	% of Exports delivered		
	to foreign entities/persons from office in India over internet, telephone or other ICT networks @	to foreign entities/persons, temporarily in India#	through on-site services by deputing employees abroad\$
(1)	(2)	(3)	(4)

@: Include receipts from exports of advertising services delivered over the phone, e-mail, cloud-computing, online platforms or any other remote delivery through ICT networks.

#: To cover services delivered in-person to a client travelling to meet the service supplier.

\$: Include receipts from on-site services delivered by employees travelling to clients' offices.

Country-wise breakup of Sales and marketing services			
Sl. No.	Country/Region	Value of total exports (in INR)	% of exports delivered to foreign entities/persons from office in India over ICT networks
(1)	(2)	(3)	(4)
01	Japan		
02	Singapore		
03	Hong Kong		
04	Other East Asian Countries		
05	South Asia		
06	West Asia		
07	Germany		
08	Hungary		
09	Netherlands		
10	Switzerland		
11	United Kingdom		
12	Other European Countries		
13	United States		
14	Canada		
15	Latin America		
16	Australia		
17	New Zealand		
18	Other Countries (specify)		
19	All		

ANNEXURE II

**D. 4. Exports of Information Services**

Information services include: (i) Audiovisual and related services; (ii) On-line audio content; (iii) On-line video content; (iv) Radio and television broadcast originals; (v) Home programme distribution services, basic programming package; (vi) Home programme distribution services, discretionary programming package; (vii) Home programme distribution services, pay per view; (viii) Radio and television channel programmes; (ix) On-line books; (x) Human health services; (xi) On-line gambling services; (xii) News agency services; (xiii) Library and archive services; (xiv) Original compilations of facts/information; (xv) On-line newspapers and originals; (xvi) On-line directories and mailing lists; (xvii) On-line adult content; (xviii) Web search portal content; (xix) Other on-line content n.e.c.; (xx) All other professional, technical and business services n.e.c.

Information services			
Total Value of Exports/Receipts of (in INR)	% of Exports delivered		
	to foreign entities/persons from office in India over internet, telephone or other ICT networks @	to foreign entities/persons, temporarily in India#	through on-site services by deputing employees abroad\$
(1)	(2)	(3)	(4)

@: Include receipts from exports of content development delivered over the phone, e-mail, cloud-computing, online platforms or any other remote delivery through ICT networks.

#: To cover services delivered in-person to a client travelling to meet the service supplier.

\$: Include receipts from on-site services delivered by employees travelling to clients' offices.

Country-wise breakup of Information services			
Sl. No.	Country/Region	Value of total exports (in INR)	% of exports delivered to foreign entities/persons from office in India over ICT networks
(1)	(2)	(3)	(4)
01	Japan		
02	Singapore		
03	Hong Kong		
04	Other East Asian Countries		
05	South Asia		
06	West Asia		
07	Germany		
08	Hungary		
09	Netherlands		
10	Switzerland		
11	United Kingdom		
12	Other European Countries		
13	United States		
14	Canada		
15	Latin America		
16	Australia		
17	New Zealand		
18	Other Countries (specify)		
19	All		



#### D. 5. Exports of Financial Services

*Financial services include: (i) Investment banking services; (ii) Services auxiliary to financial services other than to insurance and pensions; (iii) Services of holding financial assets; (iv) Other financial services, except investment banking, insurance services and pension services; (v) Central Banking services; (vi) Deposit services; (vii) Credit-granting services; (viii) Financial leasing services; (ix) Pension fund management services; (x) Individual pension services; (xi) Group pension services.*

Financial Services			
Total Value of Exports/Receipts of (in INR)	% of Exports delivered		
	to foreign entities/persons from office in India over internet, telephone or other ICT networks @	to foreign entities/persons, temporarily in India#	through on-site services by deputing employees abroad\$
(1)	(2)	(3)	(4)

@: Include receipts from exports of financial services delivered over the phone, e-mail, cloud-computing or any other remote delivery through ICT networks.

#: To cover services delivered in-person to a client travelling to meet the service supplier.

\$: Include receipts from on-site services delivered by employees travelling to clients' offices.

Country-wise breakup of Financial Services			
Sl. No.	Country/Region	Value of total exports (in INR)	% of exports delivered to foreign entities/persons from office in India over ICT networks
(1)	(2)	(3)	(4)
01	Japan		
02	Singapore		
03	Hong Kong		
04	Other East Asian Countries		
05	South Asia		
06	West Asia		
07	Germany		
08	Hungary		
09	Netherlands		
10	Switzerland		
11	United Kingdom		
12	Other European Countries		
13	United States		
14	Canada		
15	Latin America		
16	Australia		
17	New Zealand		
18	Other Countries (specify)		
19	All		

ANNEXURE II

**D. 6. Exports of Management, Administration and Back Office Services**

Management, administration and back office services include: (i) Legal services; (ii) Accounting, auditing and bookkeeping services; (iii) Tax consultancy and preparation services; (iv) Insolvency and receivership services; (v) Management consulting and management services; (vi) Business consulting services; (vii) Other management services, except construction project management services; (viii) Employment services; (ix) Investigation and security services; (x) Travel arrangements, tour operator and related services; (xi) Credit reporting services; (xii) Collection agency services; (xiii) Telephone-based support services; (xiv) Combined office administrative services; (xv) Specialized office support services; (xvi) Other information and support services n.e.c.

Management, Administration and Back Office Services			
Total Value of Exports/Receipts of (in INR)	% of Exports delivered		
	to foreign entities/persons from office in India over internet, telephone or other ICT networks @	to foreign entities/persons, temporarily in India#	through on-site services by deputing employees abroad\$
(1)	(2)	(3)	(4)

@: Include receipts from exports of back office services delivered over the phone, e-mail, cloud-computing or any other remote delivery through ICT networks.

#: To cover services delivered in-person to a client travelling to meet the service supplier.

\$: Include receipts from on-site services delivered by employees travelling to clients' offices.

Country-wise breakup of Management, Administration and Back Office Services			
Sl. No.	Country/Region	Value of total exports (in INR)	% of exports delivered to foreign entities/persons from office in India over ICT networks
(1)	(2)	(3)	(4)
01	Japan		
02	Singapore		
03	Hong Kong		
04	Other East Asian Countries		
05	South Asia		
06	West Asia		
07	Germany		
08	Hungary		
09	Netherlands		
10	Switzerland		
11	United Kingdom		
12	Other European Countries		
13	United States		
14	Canada		
15	Latin America		
16	Australia		
17	New Zealand		
18	Other Countries (specify)		
19	All		

### D. 7. Exports of Licensing Services

Licensing services include: (i) Licensing services for the right to use trademarks and franchises; (ii) Licensing services for the right to use R&D products; (iii) Licensing services for the right to use entertainment, literary or artistic originals; (iv) Licensing services for the right to use mineral exploration and evaluation; (v) Licensing services for the right to use other intellectual property products; (vi) Licensing services for the right to use databases.

Licensing Services			
Total Value of Exports/Receipts of (in INR)	% of Exports delivered		
	to foreign entities/persons from office in India over internet, telephone or other ICT networks @	to foreign entities/persons, temporarily in India#	through on-site services by deputing employees abroad\$
(1)	(2)	(3)	(4)

@: Include receipts from exports of financial services delivered over the phone, e-mail, cloud-computing or any other remote delivery through ICT networks.

#: To cover services delivered in-person to a client travelling to meet the service supplier.

\$: Include receipts from on-site services delivered by employees travelling to clients' offices.

Country-wise breakup of Licensing Services			
Sl. No.	Country/Region	Value of total exports (in INR)	% of exports delivered to foreign entities/persons from office in India over ICT networks
(1)	(2)	(3)	(4)
01	Japan		
02	Singapore		
03	Hong Kong		
04	Other East Asian Countries		
05	South Asia		
06	West Asia		
07	Germany		
08	Hungary		
09	Netherlands		
10	Switzerland		
11	United Kingdom		
12	Other European Countries		
13	United States		
14	Canada		
15	Latin America		
16	Australia		
17	New Zealand		
18	Other Countries (specify)		
19	All		

**D. 8. Exports of Engineering, related Technical Services and R&D**

Engineering, related technical services and R&D include: (i) Research and experimental development services in natural sciences and engineering; (ii) Research and experimental development services in social sciences and humanities; (iii) Interdisciplinary research and experimental development services; (iv) Industrial design services; (v) Research and development originals; (vi) Design originals; (vii) Technical testing and analysis services; (viii) Architectural services, urban and land planning and landscape architectural services; (ix) Engineering services; (x) Surface surveying and map-making services; (xi) Weather forecasting and meteorological services; (xii) Scientific and technical consulting services n.e.c.; (xiii) Publishing, printing and reproduction services; (xiv) Photographic processing services; (xv) Translation and interpretation services; (xvi) Restoration and retouching services of photography; (xvii) Other photography services; (xviii) Interior design services; (xix) Other specialty design services; (xx) Drafting services, n.e.c.

Engineering, related Technical Services and R&D			
Total Value of Exports/Receipts of (in INR)	% of Exports delivered		
	to foreign entities/persons from office in India over internet, telephone or other ICT networks @	to foreign entities/persons, temporarily in India#	through on-site services by deputing employees abroad\$
(1)	(2)	(3)	(4)

@: Include receipts from exports of engineering services delivered over the phone, e-mail, cloud-computing or any other remote delivery through ICT networks.

# To cover services delivered in-person to a client travelling to meet the service supplier.

\$: Include receipts from on-site services delivered by employees travelling to clients' offices.

Country-wise breakup of Engineering, related Technical Services and R&D			
Sl. No.	Country/Region	Value of total exports (in INR)	% of exports delivered to foreign entities/persons from office in India over ICT networks
(1)	(2)	(3)	(4)
01	Japan		
02	Singapore		
03	Hong Kong		
04	Other East Asian Countries		
05	South Asia		
06	West Asia		
07	Germany		
08	Hungary		
09	Netherlands		
10	Switzerland		
11	United Kingdom		
12	Other European Countries		
13	United States		
14	Canada		
15	Latin America		
16	Australia		
17	New Zealand		
18	Other Countries (specify)		
19	All		

#### D. 9. Exports of Education and Training Services

Education and training services include: (i) Pre-primary education services; (ii) Primary education services; (iii) Secondary education services; (iv) Post-secondary non-tertiary education services; (v) Tertiary education services; (vi) Educational support services; (vii) Cultural education services; (viii) Sports and recreation education services; (ix) Other education and training services, n.e.c.

Education and Training Services			
Total Value of Exports/Receipts of (in INR)	% of Exports delivered		
	to foreign entities/persons from office in India over internet, telephone or other ICT networks @	to foreign entities/persons, temporarily in India#	through on-site services by deputing employees abroad\$
(1)	(2)	(3)	(4)

@: Include receipts from exports of education services delivered over the phone, e-mail, cloud-computing, online platforms or any other remote delivery through ICT networks.

#: To cover services delivered in-person to a client travelling to meet the service supplier.

\$: Include receipts from on-site services delivered by employees travelling to clients' offices.

Country-wise breakup of Education and Training Services			
Sl. No.	Country/Region	Value of total exports (in INR)	% of exports delivered to foreign entities/persons from office in India over ICT networks
(1)	(2)	(3)	(4)
01	Japan		
02	Singapore		
03	Hong Kong		
04	Other East Asian Countries		
05	South Asia		
06	West Asia		
07	Germany		
08	Hungary		
09	Netherlands		
10	Switzerland		
11	United Kingdom		
12	Other European Countries		
13	United States		
14	Canada		
15	Latin America		
16	Australia		
17	New Zealand		
18	Other Countries (specify)		
19	All		

# ANNEXURE III





ANNEXURE III

International Standard Industrial Classification of All Economic Activities, Rev.4	
Code	Activity
01	Crop and animal production, hunting and related service activities
02	Forestry and logging
03	Fishing and aquaculture
05	Mining of coal and lignite
06	Extraction of crude petroleum and natural gas
07	Mining of metal ores
08	Other mining and quarrying
09	Mining support service activities
10	Manufacture of food products
11	Manufacture of beverages
12	Manufacture of tobacco products
13	Manufacture of textiles
14	Manufacture of wearing apparel
15	Manufacture of leather and related products
16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
17	Manufacture of paper and paper products
18	Printing and reproduction of recorded media
19	Manufacture of coke and refined petroleum products
20	Manufacture of chemicals and chemical products
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations
22	Manufacture of rubber and plastics products
23	Manufacture of other non-metallic mineral products
24	Manufacture of basic metals
25	Manufacture of fabricated metal products, except machinery and equipment
26	Manufacture of computer, electronic and optical products
27	Manufacture of electrical equipment
28	Manufacture of machinery and equipment n.e.c.
29	Manufacture of motor vehicles, trailers and semi-trailers
30	Manufacture of other transport equipment
31	Manufacture of furniture
32	Other manufacturing
33	Repair and installation of machinery and equipment
35	Electricity, gas, steam and air conditioning supply
36	Water collection, treatment and supply
37	Sewerage
38	Waste collection, treatment and disposal activities; materials recovery
39	Remediation activities and other waste management services
41	Construction of buildings
42	Civil engineering
43	Specialized construction activities
45	Wholesale and retail trade and repair of motor vehicles and motorcycles
46	Wholesale trade, except of motor vehicles and motorcycles



47	Retail trade, except of motor vehicles and motorcycles
49	Land transport and transport via pipelines
50	Water transport
51	Air transport
52	Warehousing and support activities for transportation
53	Postal and courier activities
55	Accommodation
56	Food and beverage service activities
58	Publishing activities
59	Motion picture, video and television programme production, sound recording and music publishing activities
60	Programming and broadcasting activities
61	Telecommunications
62	Computer programming, consultancy and related activities
63	Information service activities
64	Financial service activities, except insurance and pension funding
65	Insurance, reinsurance and pension funding, except compulsory social security
66	Activities auxiliary to financial service and insurance activities
68	Real estate activities
69	Legal and accounting activities
70	Activities of head offices; management consultancy activities
71	Architectural and engineering activities; technical testing and analysis
72	Scientific research and development
73	Advertising and market research
74	Other professional, scientific and technical activities
75	Veterinary activities
77	Rental and leasing activities
78	Employment activities
79	Travel agency, tour operator, reservation service and related activities
80	Security and investigation activities
81	Services to buildings and landscape activities
82	Office administrative, office support and other business support activities
84	Public administration and defence; compulsory social security
85	Education
86	Human health activities
87	Residential care activities
88	Social work activities without accommodation
90	Creative, arts and entertainment activities
91	Libraries, archives, museums and other cultural activities
92	Gambling and betting activities
93	Sports activities and amusement and recreation activities
94	Activities of membership organizations
95	Repair of computers and personal and household goods
96	Other personal service activities
97	Activities of households as employers of domestic personnel
98	Undifferentiated goods- and services-producing activities of private households for own use
99	Activities of extraterritorial organizations and bodies

# ANNEXURE IV





## EXPORTS OF INFORMATION AND COMMUNICATIONS TECHNOLOGY SERVICES – 2016-17

Detailed composition of services categories

### 1.1. Telecommunications services

Telecommunication services include:

- Telephony and other telecommunications services (see 1.1.1.);
- Internet telecommunications services (see 1.1.2.);
- Broadcasting services (see 1.1.3.).

#### 1.1.1. Telephony and other telecommunications services include:

- Carrier services;
- Fixed telephony services;
- Mobile voice services;
- Mobile text services;
- Mobile data services, except text services;
- Private network services;
- Data transmission services;
- Other telecommunications services.

#### 1.1.2. Internet telecommunications services include:

- Internet backbone services;
- Narrowband Internet access services;
- Broadband Internet access services;
- Other Internet telecommunications services.

#### 1.1.3. Broadcasting services include:

- Selection, scheduling and broadcasting of television and radio programmes
- Combined programme production and broadcasting services

### 1.2. Computer services (including computer software)

Computer services (including computer software) include:

- Licensing services for the right to use computer software (see 1.2.1.);
- Software downloads (see 1.2.2.);
- Software originals (see 1.2.3.);
- On-line games (see 1.2.4.);

- On-line software (see 1.2.5.);
- IT consulting and support services (see 1.2.6.);
- Hosting and information technology (IT) infrastructure provisioning services (see 1.2.7.);
- IT infrastructure and network management services (see 1.2.8.);
- Maintenance and repair services of computers and peripheral equipment (see 1.2.9.);
- IT design and development services for applications (see 1.2.10.);
- Specially tailored computer training services provided to an individual or a group (see 1.2.11.).

#### 1.2.1. Licensing services for the right to use computer software include:

- Licensing services for the right to reproduce, distribute or incorporate computer programs, program descriptions and supporting materials for both systems and applications software. This applies to various levels of licensing rights:
  - rights to reproduce and distribute the software
  - rights to use software components for the creation of and inclusion in other software products.

#### 1.2.2. Software downloads include:

- System software downloads;
- Application software downloads.

#### 1.2.3. Software originals include:

- Software originals (i.e. a set of instructions that is to be used in a computing device in order to bring about a specific result), which can be protected and licensed as intellectual property.

#### 1.2.4. On-line games include:

- Games that are intended to be played on the Internet such as:
  - role-playing games (RPGs)
  - strategy games

- action games
  - card games
  - children's games.
- 1.2.5. On-line software include:
- Software that is intended to be executed on-line, except game software.
- 1.2.6. IT consulting and support services include:
- IT consulting services;
  - IT support services.
- 1.2.7. Hosting and information technology (IT) infrastructure provisioning services include:
- Website hosting services;
  - Application service provisioning;
  - Other hosting and IT infrastructure provisioning services.
- 1.2.8. IT infrastructure and network management services include:
- Network management services;
  - Computer systems management services.
- 1.2.9. Maintenance and repair services of computers and peripheral equipment include:
- Maintenance and repair services of computers and computing machinery and peripheral equipment, such as:
    - desktop computers
    - laptop computers
    - hand-held computers (PDA's)
    - dedicated computer terminals
    - computer servers
    - magnetic disk drives, flash drives and other storage devices
    - optical disk drives (CD-RW, CD-ROM, DVD-ROM, DVD-RW)
    - printers
    - monitors
    - keyboards
    - internal and external computer modems
    - scanners, including bar code scanners
- smart card readers
  - virtual reality helmets
  - computer projectors
  - computer terminals like automatic teller machines (ATM's); point-of-sale (POS) terminals, not mechanically operated.
- 1.2.10. IT design and development services for applications include:
- Services of designing the structure and/or writing the computer code necessary to create and/or implement a software application, such as:
    - designing the structure and content of a web page and/or writing the computer code necessary to create and implement a web page;
    - designing the structure and content of a database and/or writing the computer code necessary to create and implement a database;
    - designing the structure and writing the computer code necessary to design and develop a custom software application;
    - customization and integration, adapting (modifying, configuring, etc.) and installing an existing application so that it is functional within the clients' information system environment.
- 1.2.11. Specially tailored computer training services provided to an individual or a group include:
- Specially tailored computer training services provided to an individual or a group, including training provided as part of a consultancy.
- 1.3. Sales and marketing services, not including trade and leasing services**
- Sales and marketing services, not including trade and leasing services, include:
- Advertising services and provision of advertising space or time (see 1.3.1.);
  - Market research and public opinion polling services (see 1.3.2.);
  - Advertising and related photography services (see 1.3.3.);

## ANNEXURE IV

- Convention and trade show assistance and organisation services (see 1.3.4.).
- 1.3.1. Advertising services and provision of advertising space or time include:
  - Full service advertising;
  - Direct marketing and direct mail services;
  - Other advertising services;
  - Purchase or sale of advertising space or time, on commission;
  - Sale of advertising space in print media (except on commission);
  - Sale of TV/radio advertising time (except on commission);
  - Sale of Internet advertising space (except on commission);
  - Sale of other advertising space or time (except on commission).
- 1.3.2. Market research and public opinion polling services include:
  - Market analysis, analysis of competition and the behaviour of consumers;
  - Use of research monographs, statistics, econometric models, surveys, etc.;
  - Investigation services designed to secure information on public opinions regarding social, economic, political and other issues.
- 1.3.3. Advertising and related photography services include:
  - Services consisting of photographing:
    - merchandise, industrial products;
    - fashion clothes and other apparel;
    - machinery, buildings;
    - persons and other subjects for use in public relations.
  - Photographic services for:
    - advertising displays, brochures, newspaper advertisements;
    - catalogues.
- 1.3.4. Convention and trade show assistance and organisation services include:

- Convention assistance and organization services;
- Trade show assistance and organization services.

### 1.4. Information services

Information services include:

- Audiovisual and related services (see 1.4.1.);
- On-line audio content (see 1.4.2.);
- On-line video content (see 1.4.3.);
- Radio and television broadcast originals (see 1.4.4.);
- Home programme distribution services, basic programming package (see 1.4.5.);
- Home programme distribution services, discretionary programming package (see 1.4.6.);
- Home programme distribution services, pay per view (see 1.4.7.);
- Radio and television channel programmes (see 1.4.8.);
- On-line books (see 1.4.9.);
- Human health services (see 1.4.10.);
- On-line gambling services (see 1.4.11.);
- News agency services (see 1.4.12.);
- Library and archive services (see 1.4.13.);
- Original compilations of facts/information (see 1.4.14.);
- On-line newspapers and originals (see 1.4.15.);
- On-line directories and mailing lists (see 1.4.16.);
- On-line adult content (see 1.4.17.);
- Web search portal content (see 1.4.18.);
- Other on-line content n.e.c. (see 1.4.19.);
- Compilation services of facts and information (i.e. databases), other than mailing lists (see 1.4.20.).

- 1.4.1. Audiovisual and related services include:

- Sound recording services, except live recording services;
- Live recording services;
- Sound recording originals.
- 1.4.2. On-line audio content include:
  - Musical audio downloads;
  - Streamed audio content.
- 1.4.3. On-line video content include:
  - Films and other video downloads;
  - Streamed video content.
- 1.4.4. Radio and television broadcast originals include:
  - Radio broadcast originals;
  - Television broadcast originals.
- 1.4.5. Home programme distribution services, basic programming package include:
  - Providing subscriber access to a basic range of programming services generally for a monthly fee.
- 1.4.6. Home programme distribution services, discretionary programming package include:
  - Providing subscriber programming services in addition to those included in the basic package for a fee separate from, and in addition to, the basic monthly fee.
- 1.4.7. Home programme distribution services, pay per view include:
  - Providing subscribers the ability to view a specific programme (movie or event) from his home for a fee separate from, and in addition to, the monthly fee for basic or discretionary programming packages.
- 1.4.8. Radio and television channel programmes include:
  - Radio channel programmes;
  - Television channel programmes.
- 1.4.9. On-line books include:
  - On-line books, including school textbooks, general reference books, such as atlases and other books of maps or charts, dictionaries and encyclopedias.
- 1.4.10. Human health services include:
  - Surgical services for inpatients;
  - Gynaecological and obstetrical services for inpatients;
  - Psychiatric services for inpatients;
  - Other services for inpatients;
  - General medical services;
  - Specialized medical services;
  - Dental medical services;
  - Childbirth and related services;
  - Nursing services;
  - Physiotherapeutic services;
  - Ambulance services;
  - Medical laboratory services;
  - Diagnostic-imaging services;
  - Blood, sperm and organ bank services;
  - Other human health services n.e.c.
- 1.4.11. On-line gambling services include:
  - On-line gambling services.
- 1.4.12. News agency services include:
  - News agency services to newspapers and periodicals;
  - News agency services to audiovisual media.
- 1.4.13. Library and archive services include:
  - Library services;
  - Archive services.
- 1.4.14. Original compilations of facts/information include:
  - Original compilations of facts or information (i.e. databases) organized for retrieval and consultation, including mailing lists.
- 1.4.15. On-line newspapers and originals include:
  - Publications issued on the Internet where the main content is updated at fixed intervals, usually on a daily, weekly or monthly basis; whether on subscription or single copy sales;

## ANNEXURE IV

- Portions of newspapers such as headlines e-mailed daily or more frequently;
- Periodic newsletters.

### 1.4.16. On-line directories and mailing lists include:

- On-line directories and mailing lists, including telephone books;
- Other on-line collections of facts/information (databases).

### 1.4.17. On-line adult content include:

- Mature theme, sexually explicit content published or broadcast over the Internet including graphics, live feeds, interactive performances and virtual activities.

### 1.4.18. Web search portal content include:

- Content provided on web search portals, i.e. extensive databases of Internet addresses and content in an easily searchable format.

### 1.4.19. Other on-line content n.e.c. include:

- Statistics or other information, including streamed news;
- Other on-line content not included above such as greeting cards, jokes, cartoons, graphics, maps.

### 1.4.20. Compilation services of facts and information (i.e. databases), other than mailing lists include:

- Compilation services of facts and information (i.e. databases), other than mailing lists.

## 1.5. Financial services

Financial services include:

- Investment banking services (see 1.5.1.);
- Services auxiliary to financial services other than to insurance and pensions (see 1.5.2.);
- Services of holding financial assets (see 1.5.3.);
- Other financial services, except investment banking, insurance services and pension services (see 1.5.4.);
- Central Banking services (see 1.5.5.);
- Deposit services (see 1.5.6.);
- Credit-granting services (see 1.5.7.);
- Financial leasing services (see 1.5.8.);

- Pension fund management services (see 1.5.9.);
- Individual pension services (see 1.5.10.);
- Group pension services (see 1.5.11.).

### 1.5.1. Investment banking services include:

- Securities underwriting services;
- Guaranteeing the sale of an issue of securities at a stated price from the issuing corporation or government and reselling it to investors;
- Engaging to sell as much of an issue of securities as possible without making a guarantee to purchase the entire offering from the issuer.

### 1.5.2. Services auxiliary to financial services other than to insurance and pensions include:

- Mergers and acquisition services;
- Corporate finance and venture capital services;
- Other services related to investment banking;
- Securities brokerage services;
- Commodity brokerage services;
- Processing and clearing services of securities transactions;
- Portfolio management services except pension funds;
- Trust services;
- Custody services;
- Financial market operational services;
- Financial market regulatory services;
- Other financial market administration services;
- Financial consultancy services;
- Foreign exchange services;
- Financial transactions processing and clearinghouse services;
- Other services auxiliary to financial services n.e.c..

### 1.5.3. Services of holding financial assets include:

- Services of holding equity of subsidiary companies;
- Services of holding securities and other assets of trusts and funds and similar financial entities.



1.5.4. Other financial services, except investment banking, insurance services and pension services include:

- Factoring services.

1.5.5. Central Banking services include:

- Services which support the country's systems for clearing and settling payments and other financial transactions;
- Services of maintaining deposit accounts for major financial institutions and for the central Government;
- Services of implementing monetary policy;
- Services of managing the government's foreign exchange reserves;
- Services of influencing the value of currency;
- Currency services under the authority of the central bank, including currency design and production, issuing, distribution and replacement;
- Fiscal agency services including advisory services to the government on matters relating to the public debt, issuing debt instruments, maintaining bondholder records and making interest and redemption payments on behalf of the government;
- Supervisory activities with regard to banks and/or non-banks if undertaken by the central bank;
- Other central banking services n.e.c.

1.5.6. Deposit services include:

- Deposit services to corporate and institutional depositors;
- Deposit services to other depositors.

1.5.7. Credit-granting services include:

- Residential mortgage loan services;
- Non-residential mortgage loan services;
- Personal non-mortgage loan services for non-business purposes;
- Credit card loan services
- Non-mortgage loan services for business purposes;
- Other credit-granting services.

1.5.8. Financial leasing services include:

- Services of making equipment and other assets available to a customer without capital investment on the customer's part, whereby the lessor pays for and takes title to the equipment or facilities and leases it to the lessee while retaining few of the normal responsibilities of ownership.

1.5.9. Pension fund management services include:

- Pension fund management services.

1.5.10. Individual pension services include:

- Underwriting services of annuities, i.e. plans which provide income payments at regular intervals to individuals. Plans may require a single contribution or a series of contributions; may be compulsory or optional; may have nominal benefits determined in advance or dependent on the market value of assets supporting the plan; and, if related to employment, may or may not be portable with a change in employment. The duration of the period during which benefits are paid may be fixed in terms of a minimum or maximum; there may or may not be survivors' benefits.

1.5.11. Group pension services include:

- Underwriting services of plans which provide income payments at regular intervals to members of groups. Plans may require a single contribution or a series of contributions; may be compulsory or optional; may have nominal benefits determined in advance or dependent on the market value of assets supporting the plan; and, if related to employment, may or may not be portable with a change in employment. The duration of the period during which benefits are paid may be fixed in terms of a minimum or maximum; there may or may not be survivors' benefits.

## 1.6. Management, administration and back office services

Management, administration and back office services include:

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- Legal services (see 1.6.1.);
  - Accounting, auditing and bookkeeping services (see 1.6.2.);
  - Tax consultancy and preparation services (see 1.6.3.);
  - Insolvency and receivership services (see 1.6.4.);
  - Management consulting and management services (see 1.6.5.);
  - Business consulting services (see 1.6.6.);
  - Other management services, except construction project management services (see 1.6.7.);
  - Employment services (see 1.6.8.);
  - Investigation and security services (see 1.6.9.);
  - Travel arrangements, tour operator and related services (see 1.6.10.);
  - Credit reporting services (see 1.6.11.);
  - Collection agency services (see 1.6.12.);
  - Telephone-based support services (see 1.6.13.);
  - Combined office administrative services (see 1.6.14.);
  - Specialized office support services (see 1.6.15.);
  - Other information and support services n.e.c. (see 1.6.16.).
- 1.6.1. Legal services include:
- Legal advisory and representation services concerning criminal law;
  - Legal advisory and representation services concerning other fields of law;
  - Legal documentation and certification services;
  - Arbitration and conciliation services;
  - Other legal services n.e.c..
- 1.6.2. Accounting, auditing and bookkeeping services include:
- Financial auditing services;
  - Accounting services;
  - Bookkeeping services;
  - Payroll services.
- 1.6.3. Tax consultancy and preparation services include:
- Corporate tax consulting and preparation services;
  - Individual tax preparation and planning services.
- 1.6.4. Insolvency and receivership services include:
- Providing advice and operational assistance to the management and/or creditors of insolvent businesses and/or acting as receiver or trustee in bankruptcy.
- 1.6.5. Management consulting and management services include:
- Strategic management consulting services;
  - Financial management consulting services;
  - Human resources management consulting services;
  - Marketing management consulting services;
  - Operations management consulting services;
  - Supply chain and other management consulting services;
  - Business process management services;
  - Head office services.
- 1.6.6. Business consulting services include:
- Public relations services;
  - Other business consulting services.
- 1.6.7. Other management services, except construction project management services include:
- Coordination and supervision of resources in preparing, running and completing a project on behalf of the client;
  - Project management services, which can involve budgeting, accounting and cost control, procurement, planning of time scales and other operating conditions, coordination of subcontractors' work, inspection and quality control, etc.
  - Project management services that include

- management and office management services, with or without the provision of their own staff.
- 1.6.8. Employment services include:
- Executive/retained search services;
  - Permanent placement services, other than executive search services;
  - Contract staffing services;
  - Temporary staffing services;
  - Long-term staffing (payrolling) services;
  - Temporary staffing-to-permanent placement services;
  - Co-employment staffing services.
- 1.6.9. Investigation and security services include:
- Investigation services;
  - Security consulting services;
  - Security systems services;
  - Armoured car services;
  - Guard services;
  - Other security services.
- 1.6.10. Travel arrangements, tour operator and related services include:
- Reservation services for air transportation;
  - Reservation services for rail transportation;
  - Reservation services for bus transportation;
  - Reservation services for vehicle rental;
  - Other transportation arrangement and reservation services n.e.c.;
  - Reservation services for accommodation;
  - Time-share exchange services;
  - Reservation services for cruises;
  - Reservation services for package tours;
  - Reservation services for convention centres, congress centres and exhibition halls;
  - Reservation services for event tickets, entertainment and recreational services and other reservation services;
  - Tour operator services;
- Tourist guide services;
  - Tourism promotion services;
  - Visitor information services.
- 1.6.11. Credit reporting services include:
- Services consisting of the reporting of credit ratings of persons and businesses;
  - Evaluation of the financial status and credit experience of prospective customers, of loan applicants, etc.
  - Credit investigation services.
- 1.6.12. Collection agency services include:
- Services consisting of the collecting of accounts, cheques, contracts or notes and of the remittance of the money to the client;
  - Collection of regular accounts (e.g., utility bills) and the recovery of delinquent accounts;
  - Outright purchase of delinquent accounts and debts and subsequent recovery.
- 1.6.13. Telephone-based support services include:
- Telephone call centre services;
  - Other telephone-based support services.
- 1.6.14. Combined office administrative services include:
- Provision of a combination of day to day office administrative services, such as reception, financial planning, billing and record keeping, personnel and mail services etc. for others on a contract or fee basis.
- 1.6.15. Specialized office support services include:
- Duplicating services;
  - Mailing list compilation services;
  - Mailing services;
  - Document preparation and other specialized office support services.
- 1.6.16. Other information and support services n.e.c. include:
- Other information services;
  - Other support services n.e.c.

## ANNEXURE IV

### 1.7. Licensing services

Licensing services include:

- Licensing services for the right to use trademarks and franchises (see 1.7.1.);
- Licensing services for the right to use R&D products (see 1.7.2.);
- Licensing services for the right to use entertainment, literary or artistic originals (see 1.7.3.);
- Licensing services for the right to use mineral exploration and evaluation (see 1.7.4.);
- Licensing services for the right to use other intellectual property products (see 1.7.5.);
- Licensing services for the right to use databases (see 1.7.6.).

1.7.1. Licensing services for the right to use trademarks and franchises include:

- Licensing services for the right to use trademarks and to operate franchises in respect of other non-produced assets.

1.7.2. Licensing services for the right to use R&D products include:

- Licensing services for the right to use the outcome of research and development activities, i.e. inventions, such as constitutions of matter, processes, mechanisms, electrical and electronic circuits and devices, pharmaceutical formulations and new varieties of living things produced by artifice.

1.7.3. Licensing services for the right to use entertainment, literary or artistic originals include:

- Licensing services for the right to reproduce, distribute or incorporate entertainment, literary, musical or artistic originals such as:
  - broadcasting and showing of original films, sound recordings, radio and television programmes, prerecorded tapes and videos;
  - reproduction of original artworks;
  - reprinting and copying of manuscripts, books, journals and periodicals.

1.7.4. Licensing services for the right to use mineral exploration and evaluation include:

- Licensing services for the right to use mineral exploration and evaluation information, such as mineral exploration for petroleum, natural gas and non-petroleum deposits.

1.7.5. Licensing services for the right to use other intellectual property products include:

- Licensing services for the right to use other kinds of intellectual property products, such as architectural and engineering plans, industrial designs etc.

1.7.6. Licensing services for the right to use databases include:

- Licensing services for the right to reproduce, distribute or incorporate databases (i.e. compilations of facts/information) in other databases or applications. This applies to various levels of licensing rights:
  - rights to reproduce and distribute the database;
  - rights to use database components for the creation of and inclusion in other databases and applications.

### 1.8. Engineering, related technical services and R&D

Engineering, related technical services and R&D include:

- Research and experimental development services in natural sciences and engineering (see 1.8.1.);
- Research and experimental development services in social sciences and humanities (see 1.8.2.);
- Interdisciplinary research and experimental development services (see 1.8.3.);
- Industrial design services (see 1.8.4.);
- Research and development originals (see 1.8.5.);
- Design originals (see 1.8.6.);
- Technical testing and analysis services (see 1.8.7.);
- Architectural services, urban and land planning and landscape architectural services (see 1.8.8.);
- Engineering services (see 1.8.9.);
- Surface surveying and map-making services (see 1.8.10.);

- Weather forecasting and meteorological services (see 1.8.11.);
  - Scientific and technical consulting services n.e.c. (see 1.8.12.);
  - Publishing, printing and reproduction services (see 1.8.13.);
  - Photographic processing services (see 1.8.14.);
  - Translation and interpretation services (see 1.8.15.);
  - Restoration and retouching services of photography (see 1.8.16.);
  - Other photography services (see 1.8.17.);
  - Interior design services (see 1.8.18.);
  - Other specialty design services (see 1.8.19.);
  - Drafting services, n.e.c. (see 1.8.20.).
- 1.8.1. Research and experimental development services in natural sciences and engineering include:
- Basic research services in physical sciences;
  - Basic research services in chemistry and biology;
  - Basic research services in biotechnology;
  - Basic research services in engineering and technology;
  - Basic research services in medical sciences and pharmacy;
  - Basic research services in agricultural sciences;
  - Basic research services in other natural sciences engineering;
  - Applied research services in physical sciences;
  - Applied research services in chemistry and biology;
  - Applied research services in biotechnology;
  - Applied research services in engineering and technology;
  - Applied research services in medical sciences and pharmacy;
  - Applied research services in agricultural sciences;
  - Applied research services in other natural sciences and engineering;
- Experimental development services in physical sciences;
  - Experimental development services in chemistry and biology;
  - Experimental development services in biotechnology;
  - Experimental development services in engineering and technology;
  - Experimental development services in medical sciences and pharmacy;
  - Experimental development services in agricultural sciences;
  - Experimental development services in other natural sciences.
- 1.8.2. Research and experimental development services in social sciences and humanities include:
- Basic research services in psychology;
  - Basic research services in economics;
  - Basic research services in law;
  - Basic research services in languages and literature;
  - Basic research services in other social sciences and humanities;
  - Applied research services in psychology;
  - Applied research services in economics;
  - Applied research services in law;
  - Applied research services in language and literature;
  - Applied research services on other social sciences and humanities;
  - Experimental development services in psychology;
  - Experimental development services in economics;
  - Experimental development services in law;
  - Experimental development services in languages and literature;
  - Experimental development services in other social sciences and humanities.

## ANNEXURE IV

- 1.8.3. Interdisciplinary research and experimental development services include:
- Interdisciplinary basic research services;
  - Interdisciplinary applied research services;
  - Interdisciplinary experimental development services.
- 1.8.4. Industrial design services include:
- Design services for industrial products, i.e. creating and developing designs and specifications that optimize the use, value and appearance of products, including the determination of the materials, construction, mechanism, shape, colour and surface finishes of the product, taking into consideration human characteristics and needs, safety, market appeal and efficiency in production, distribution, use and maintenance.
- 1.8.5. Research and development originals include:
- Scientific originals, i.e. ideas, plans, blueprints, formulas for inventions, products and processes, which can be protected and licensed as industrial property, trade secrets, patents, etc.
- 1.8.6. Design originals include:
- Original design concepts, produced on own account:
    - industrial product designs
    - aesthetic designs
    - graphic designs
- 1.8.7. Technical testing and analysis services include:
- Composition and purity testing and analysis services;
  - Testing and analysis services of physical properties;
  - Testing and analysis services of integrated mechanical and electrical systems;
  - Technical inspection services of road transport vehicles;
  - Other technical testing and analysis services.
- 1.8.8. Architectural services, urban and land planning and landscape architectural services include:
- Architectural advisory services;
  - Architectural services for residential building projects;
  - Architectural services for non-residential building projects;
  - Historical restoration architectural services;
  - Urban planning services;
  - Rural land planning services;
  - Project site master planning services;
  - Landscape architectural advisory services;
  - Landscape architectural services.
- 1.8.9. Engineering services include:
- Engineering advisory services;
  - Engineering services for building projects;
  - Engineering services for industrial and manufacturing projects;
  - Engineering services for transportation projects;
  - Engineering services for power projects;
  - Engineering services for telecommunications and broadcasting projects;
  - Engineering services for waste management projects (hazardous and non-hazardous);
  - Engineering services for water, sewerage and drainage projects;
  - Engineering services for other projects;
  - Project management services for construction projects.
- 1.8.10. Surface surveying and map-making services include:
- Surface surveying services;
  - Map-making services.
- 1.8.11. Weather forecasting and meteorological services include:
- Providing meteorological analysis of the atmosphere and predicting weather processes and weather conditions.
- 1.8.12. Scientific and technical consulting services n.e.c. include:

- Environmental consulting services;
  - Other scientific and technical consulting services n.e.c.
- 1.8.13. Publishing, printing and reproduction services include:
- Publishing, on a fee or contract basis and media, on a fee or contract basis;
  - Printing services;
  - Services related to printing;
  - Reproduction services of recorded media, on a fee or contract basis.
- 1.8.14. Photographic processing services include:
- Sale or leasing of advertising time or space, on commission;
  - Services of media buying agencies, which buy media space or time on behalf of advertisers advertising agencies.
- 1.8.15. Translation and interpretation services include:
- Services generally related to the translation of texts from one language to another, resulting in a written document;
  - Interpretation services are generally concerned with stating orally in one language what has been stated orally in another language.
- 1.8.16. Restoration and retouching services of photography include:
- Services consisting of old photograph restoration;
  - Retouching and other special photographic effects.
- 1.8.17. Other photography services include:
- Microfilming services.
- 1.8.18. Interior design services include:
- Planning and designing of interior spaces to meet the physical, aesthetic and functional needs of people;
  - Drawing up of designs for interior decorating;
  - Interior decorating, including dressing of windows and stalls.
- 1.8.19. Other specialty design services include:

- Creating designs and preparing patterns for a variety of products by harmonizing aesthetic considerations with technical and other requirements, such as:
    - furniture designs;
    - aesthetic design for various other customer products.
  - Package design services;
  - Production of three-dimensional models;
  - Graphic design services, including graphic design for advertising purposes.
- 1.8.20. Drafting services, n.e.c. include:
- Drafting services (detailed layouts, drawings, plans and illustrations of buildings, structures, systems or components from engineering and architectural specifications, done by architectural draftsmen or engineering technicians).
- 1.9. Education and training services**
- Education and training services include:
- Pre-primary education services (see 1.9.1.);
  - Primary education services (see 1.9.2.);
  - Secondary education services (see 1.9.3.);
  - Post-secondary non-tertiary education services (see 1.9.4.);
  - Tertiary education services (see 1.9.5.);
  - Educational support services (see 1.9.6.);
  - Cultural education services (see 1.9.7.);
  - Sports and recreation education services (see 1.9.8.);
  - Other education and training services, n.e.c. (see 1.9.9.).
- 1.9.1. Pre-primary education services include:
- Education services usually provided by nursery schools, kindergartens, pre-schools, centres for early childhood education, centres for infant education or special sections attached to primary schools. Pre-primary education (ISCED Level 0) is defined as the initial stage of organized instruction designed primarily to introduce very young children to a school-

## ANNEXURE IV

type environment, that is, to provide a bridge between the home and a schoolbased atmosphere;

- Services related to the provision of special education programmes at this educational level.

### 1.9.2. Primary education services include:

- Educational services provided at ISCED Level 1, which includes programmes designed to provide students with an initial basic education in reading, writing and mathematics along with an elementary understanding of other subjects such as history, geography, natural science, social science, art and music;
- Services related to the provision of special education programmes at this educational level;
- Services related to the provision of literacy programmes for adults at this educational level.

### 1.9.3. Secondary education services include:

- Lower secondary education services, general;
- Lower secondary education services, technical and vocational;
- Upper secondary education services, general;
- Upper secondary education services, technical and vocational.

### 1.9.4. Post-secondary non-tertiary education services include:

- Post-secondary non-tertiary education services, general;
- Post-secondary non-tertiary education services, technical and vocational.

### 1.9.5. Tertiary education services include:

- First stage tertiary education services;
- Second stage tertiary education services.

### 1.9.6. Educational support services include:

- Non-instructional services that support

educational processes or systems, such as:

- educational consulting;
- educational guidance counselling services;
- educational testing evaluation services;
- educational testing services;
- organization of student exchange programmes.

### 1.9.7. Cultural education services include:

- Piano and other music instruction;
- Art instruction;
- Dance instruction and dance studios;
- Art instruction except academic;
- Photography instruction.

### 1.9.8. Sports and recreation education services include:

- Sports instruction (baseball, basketball, cricket, football, hockey, tennis, figure skating, etc.);
- Camps, sports instruction;
- Gymnastics instruction;
- Riding instruction;
- Swimming instruction;
- Martial arts instruction;
- Card game instruction (such as bridge);
- Yoga instruction.

### 1.9.9. Other education and training services, n.e.c. include:

- Training for car, bus, lorry and motorcycle driving licenses;
- Training for flying certificates and ship licenses;
- Management training services;
- Services provided by music camps, science camps, computer camps and other instructional camps, except for sports;
- Education services not definable by level.



## NOTES

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