

Trade in Services

INFORMATION TECHNOLOGY & IT ENABLED SERVICES

AHSAN NAWAZ

RESEARCH ASSOCIATE

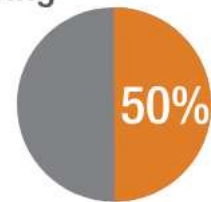
Contents

1. Introduction	2
2. Trade in Services – Explained	4
3. Global Landscape on Trade in Services	8
3.1. Trade in services by countries	8
3.2. Trade in services by category	9
4. Services Landscape of Pakistan	11
5. Information Technology & Information Technology Enabled Services (IT & ITES)	12
5.1. Introduction	12
5.2. IT &ITeS Classification	13
5.4. Growth of IT industry in Pakistan	15
5.5. Pakistan’s Exports of telecommunications, computer, and information	16
5.6. Composition of IT & ITeS in Pakistan	17
5.6.1. Major IT companies in Pakistan	20
5.7. Government Policies	21
5.7.1. Fiscal Incentives	22
5.7.2. Non-Fiscal Incentives	22
5.8. Govt. Agencies	23
5.9. Investment opportunities in IT services	24
5.10. Export potential of IT & IT enabled services	24
5.10.1. United States of America	26
5.10.2. United Kingdom	28
6. Competitor’s Industry Overview (India)	30
7. Challenges faced by IT Industry	31
8. Recommendations & Conclusions	33

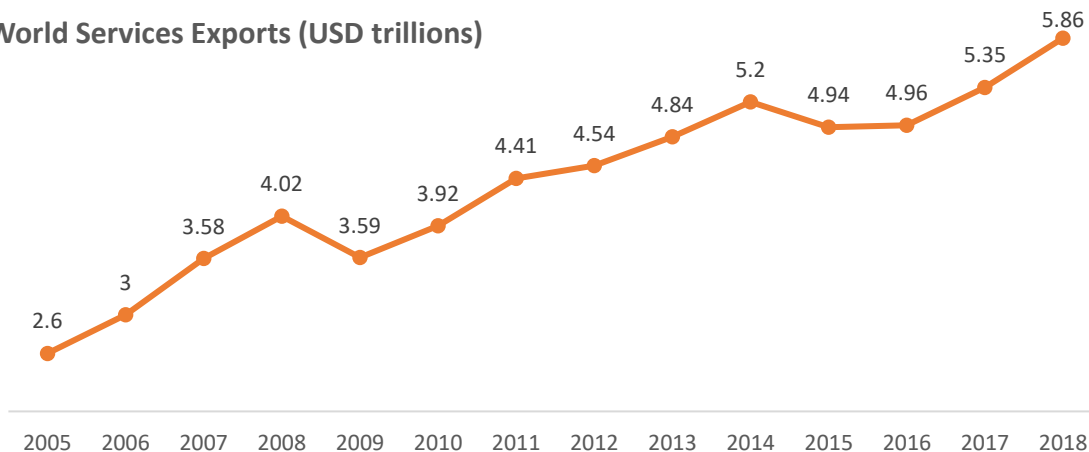
1. Introduction

Economic development depends on the growth and evolution of the three sectors of the economy i.e. agriculture (primary), industry (secondary) and services (tertiary). Services being the tertiary sector of the economy on average constituted about 63.6% of the world's GDP¹ in 2018. In the last 20 years, trade in services has become the most dynamic segment of international trade growing more quickly than the trade in goods. The services sector is already dominant in the developed countries with their two-third share in exports of world services. However, in recent years, the services sector is also growing at a very faster rate in the developing countries and is contributing with its major share in terms of output, income and employment. Even the productivity per worker is becoming higher in services sector when compared against those of agriculture and industrial sectors. International trade in services has further liberalized global economy and mobility across borders. Growth in export of services has helped developing countries maintain their trade deficits by effectively utilizing their untapped resources and skills.

Five Asian economies export half of all services provided by the developing world



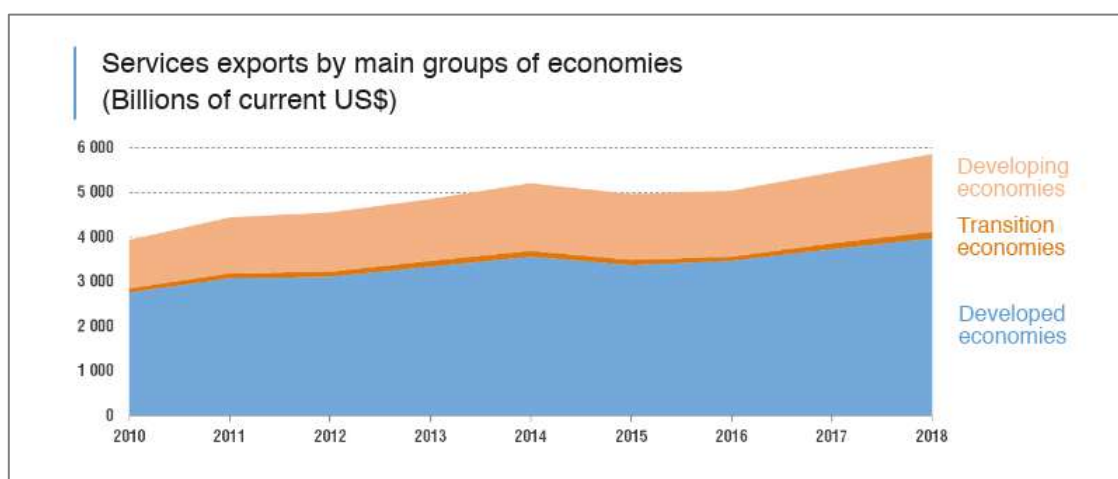
World Services Exports (USD trillions)



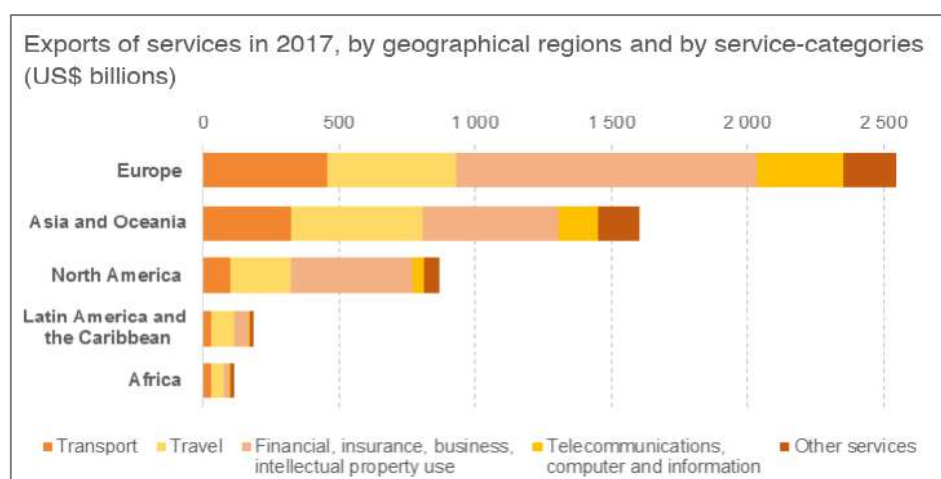
According to the UNCTAD Handbook of Statistics (Trade in Services, 2018); the world services exports posted even higher growth of 9.5% in 2018 after registering a strong increase

¹ The World Factbook (2018) - Central Intelligence Agency". <https://www.cia.gov/library/publications/the-world-factbook/fields/214.html#XX>

of 8 pc in the year 2018². Trade in services has gained momentum in the last four years with 18% year over year growth since 2015 whereas the international exports have increased more than two-fold since 2005 reaching at USD 5.86 trillion in 2018 from USD 2.6 in the year 2005. Although developed countries dominate the scene but several developing and transition economies are taking charge in this sector. In the year 2018, services exports share of developing countries grew up to 32% over the time span of a decade – with annual growth rate of 7.8 pc.



In 2017, the leading exporters of services in the world were USA, UK, Germany, France, Netherlands, China, India, Russian Federation, Egypt, Brazil, Mexico, and Singapore. On the other hand, leading importers of services were USA, Germany, France, United Kingdom, Netherlands, Russian Federation, China, Singapore, Brazil, Argentina, and Nigeria.



² UNCTAD Handbook of Statistics (Trade in Services, 2018).
<http://stats.unctad.org/handbook/Services/Total.html>

2. Trade in Services – Explained

Trade in services establishes a relationship between a consumer and a producer doing trade of intangible goods without any limitation of crossing the borders. The services traded vary to a great degree such as transportation services, travelling services, financial services, insurance, computer and information services, banking, intellectual property services, communication services, construction, engineering, legal/ professional services, and government services etc. All these services provided internationally through different modes are described as ‘Trade in Services’.

The diverse nature of services rendered along with fast-track growth of information and communication technologies (ICT), at one end has made it extremely difficult to keep track of the delivery channels while on the other has pacified international transfer of services. These services encompass an immense breadth of economic activities and participants, filling a variety of roles in national and global value chains, from assembly to e-commerce to human resources.

Article I:2 of the **GATS** defines the concept of “**trade in services**” as “*the supply of a service*” within one of four defined “*modes of supply*”.

This definition of “trade in services” through the four different modes of supply is fundamental to understanding the scope and operation of the GATS.

“TRADE IN SERVICES”



Trade in services records the value of services exchanged between residents and non-residents of an economy, including services provided through foreign affiliates established abroad.

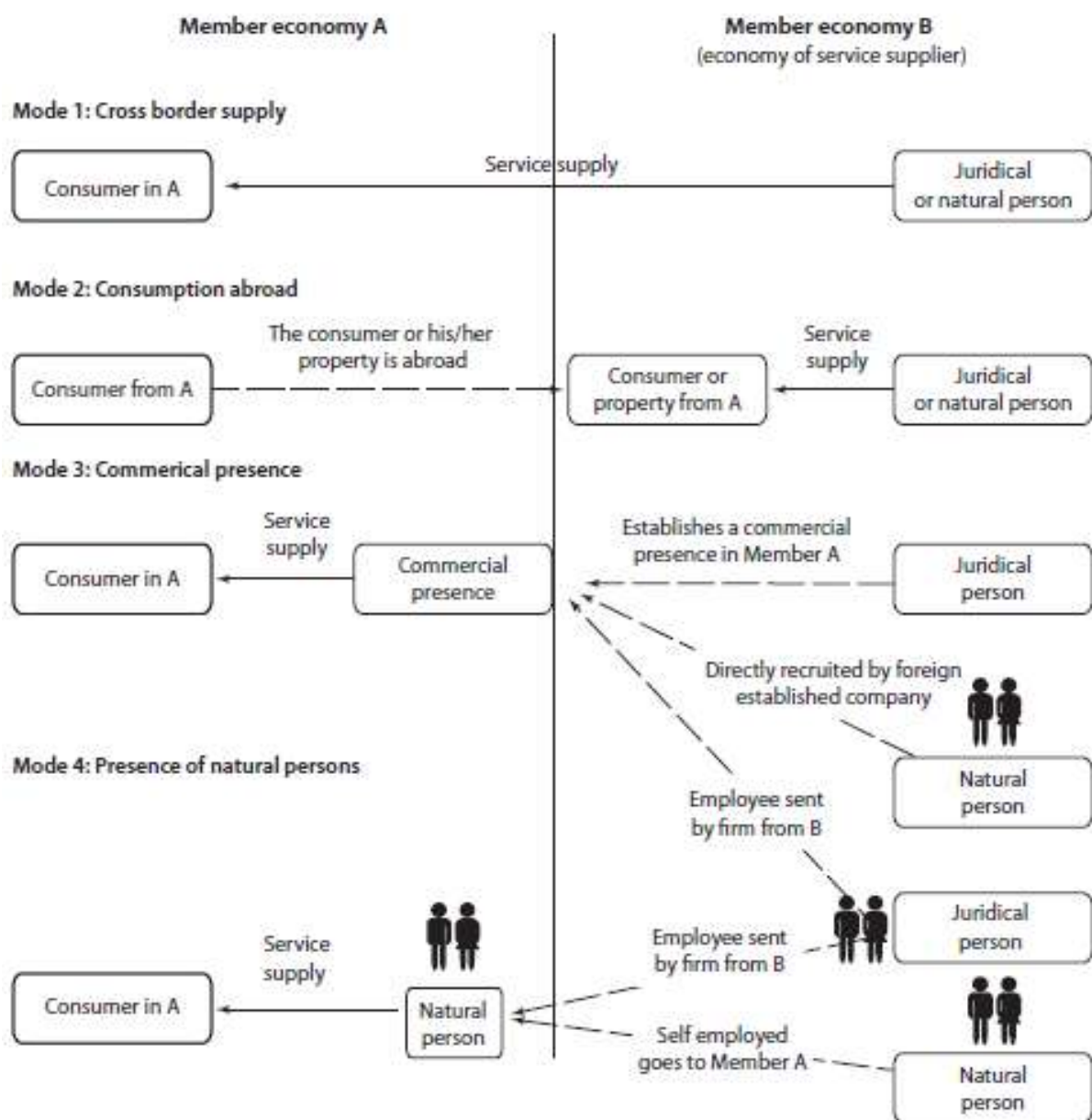
It drives the exchange of ideas, know-how & technology

Organisation for Economic Co-operation and Development (OECD)

The **General Agreement on Trade in Services (GATS)** enforced in January 1995, a multilateral treaty signed by 164 members, under the tutelage of World Trade Organization (WTO) provides for trade in services to take place in four different modes.

Mode	Description
Cross-Border	The supply of a service from the territory of one member into the territory of any other member.
Consumption Abroad	The supply of the service in the territory of one member to the service consumer of any other member.
Commercial Presence	The supply of a service by a service supplier of one member, through commercial presence in the territory of any other member.
Temporary Movement	The supply of a service by a service supplier of one member, through presence of natural persons of a member in the territory of any other member.

An illustration of trade in services



The General Agreement on Trade in Services applies to all the services sectors with two exceptions; defined in Article 1(3) that excludes “services supplied in the exercise of governmental authority (supplied neither on a commercial basis nor in competition with other suppliers i.e. Social security schemes – health & education)” and “Air Transport Services (Air traffic rights)”.

Currently, GATS is the only codified instrument on trade in services and works on the concept of Most-Favored Nation (MFN) treatment. It advocates specific commitments to uphold negotiated agreements by providing market access and refutes national treatment (preference to domestic suppliers over foreign suppliers). Initially in 1995, GATS listed services in broad 12 broad sectors that correspond to the GATT Secretariat classification:

- Business;
- Communication;
- Construction and Engineering;
- Distribution;
- Education;
- Environment;
- Financial;
- Health;
- Tourism and Travel;
- Recreation, Cultural, and Sporting;
- Transport;
- “Other”

Since then, there have been 6 rounds of amendments on classification of services into different categories/ sectors with latest classification known as BPM6.

In the year 2013, with the emergence of information and communication technology, the need to update GATS emerged. The negotiations on this contemporary framework (Trade in Services Agreement – TiSA) are underway with 21 rounds of talks; last held in 2016. TiSA is based on the architecture of WTO's General Agreement on Trade in Services (GATS) and is believed to be the future of liberalizing trade in services. TiSA aims at opening up markets and improving rules in areas such as transparency in licensing, domestic regulations, telecommunication, e-commerce, financial services, maritime transport, and professionals moving abroad temporarily to provide services.

TiSA

TRADE IN SERVICES AGREEMENT

1st NEGOTIATION TO
UPDATE GATS IN 20 YEARS
STARTED IN MARCH 2013

21 rounds of talks in Geneva by November 2016



2016

LAST ROUND OF NEGOTIATIONS

Horizontal & sectoral rules negotiated:

transparency & domestic regulation,
e-commerce & telecommunication,
financial services & delivery services
transport (maritime, air and road) services
services of highly-skilled professionals ("Mode 4")



Plurilateral Agreement

23 WTO members including EU

CONTRIBUTING 70% OF THE WORLD TRADE IN SERVICES



50%

average cost
of trade barriers

\$3 trillion

trade expected with updated rules

Source: Ed Gresser – 21st century trade policy: the internet and the global economy)

AUSTRALIA, CANADA, CHILE,
CHINESE TAIPEI, COLOMBIA,
COSTA RICA, HONG KONG
CHINA, ICELAND, ISRAEL,
JAPAN, KOREA, MAURITIUS,
MEXICO, NEW ZEALAND,
NORWAY, LIECHTENSTEIN,
PAKISTAN, PANAMA, PERU,
SWITZERLAND, TURKEY,
THE UNITED STATES, THE EU

3. Global Landscape on Trade in Services

3.1. Trade in services by countries

In the year 2017, the total trade of services was USD 5.4 trillion with United States of America being the biggest exporter (USD 781 billion) and also the largest market (imports at USD 538 billion) amongst developed economies in the services sector. The leading exporters followed by USA were United Kingdom (USD 351 billion), Germany (USD 304 billion), France (USD 249 billion) and Netherlands (USD 218 billion). The biggest market for trade in services was Europe with its cumulative trade around USD 2.6 trillion.

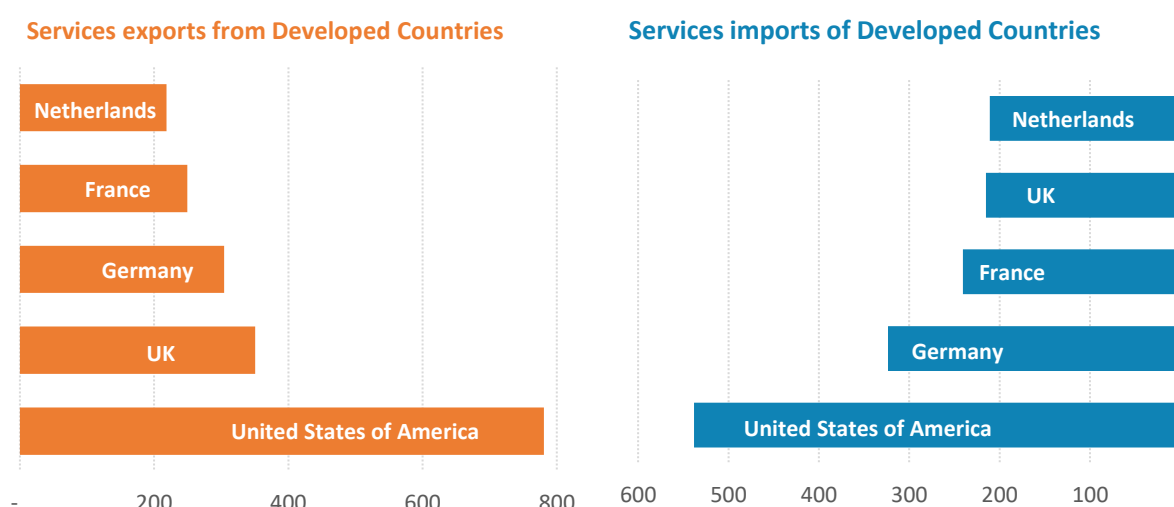


Figure 1: Global trade in Services (Top 5 developed countries) - values in USD billions

Among the developing economies in Africa; Egypt emerged as the biggest exporter of services followed by Morocco, South Africa, Ghana and Nigeria in 2017. On the import front, the largest market of trade in services was Nigeria which registered a 55.6% change in imports from last year in 2016. Furthermore, Egypt, South Africa, Angola and Algeria were the leading importer of services. Trade in services outlook in African economies registered the deficit of USD 28 billion indicating demand for services and a potential market for exports of services.

Developing economies: Africa

Exporter	2017	World Share	% Change
Egypt	20	0.38%	47.2
Morocco	17	0.32%	12.2
South Africa	15.7	0.30%	9.8
Ghana	6.7	0.13%	5.3
Nigeria	5	0.09%	34.6
Total Africa	94		13.7

Importers	2017	World Share	% Change
Nigeria	18	0.34%	55.6
Egypt	17	0.32%	2.2
South Africa	16	0.30%	8.2
Angola	14.2	0.27%	13.3
Algeria	11.5	0.22%	6.6
Total Africa	122		10.4

Figure 2: Trade in Services Outlook (Top 5 Developing Countries in Africa) - values in USD billions

Developing economies: America

Exporter	2017	World Share	% Change	Importers	2017	World Share	% Change
Brazil	34	0.64%	3.5	Brazil	68	1.28%	7.2
Mexico	27	0.51%	10	Mexico	36.8	0.69%	9.9
Argentina	14	0.26%	10.8	Argentina	24	0.45%	14
Panama	13	0.25%	7.2	Chile	13	0.25%	3.4
Cuba	11	0.21%	0.2	Colombia	11	0.21%	10.5
Total America	1,045		6	Total America	852		6.4

Figure 3: Trade in Services Outlook (Top 5 Developing Countries in Americas) - values in USD billions

The total exports of services of America regions in 2017 stood at USD 1,045 billion. Of the total trade in services of Americas, none of the developing economies could capture export share of 1%. Brazil dominated the services sector both exports and in imports.

Developing economies: Asia

Exporter	2017	World Share	% Change	Importers	2017	World Share	% Change
China	228	4.30%	8.9	China	468	8.83%	3.4
India	184	3.47%	13.7	Singapore	171	3.23%	5.1
Singapore	165	3.11%	4.3	India	154	2.91%	15.3
Hong Kong	103	1.94%	5.2	South Korea	122	2.30%	8.3
South Korea	87	1.64%	-7.8	UAE	86	1.62%	2
Total Asia	1,516		7.5	Total Asia	1,785		5.9

Figure 4: Trade in Services Outlook (Top 5 Developing Countries in Asia) - values in USD billions

In the Asia region, the total exports of services from Asia were USD 1,516 billion whereas the imports of services were recorded at USD 1,785 billion. Asia is the second biggest supplier and the market for trade in services in the world dominated by China, India, South Korea, and Singapore.

3.2. Trade in services by category

In the global trade in services, the majority share by category were the exports of travel and tourism services (around 30% of world services exports). As per GATS framework defined under EBOPS 2010, travel and tourism (T&T) include tuition & living cost during study, health cost, business travel expenses, accommodation, transport, postal service, and telecommunication costs incurred upon the non-residents during his/ her travels to a foreign country. World exports of T&T services in 2017 were USD 1,274 billion in 2017.

The second most traded service in the world in 2017 were the transport services with their contribution of USD 911 billion. Transport services by definition cover the process of carriage of people and objects from one location to another as well as related supporting and auxiliary services and rentals of carrier with crew. EBOPS 2010 framework distinguishes transportation

into 8 different modes i.e. sea, air, space, rail, road, internal waterway, pipeline and electricity transmission. The third most traded service in 2017 was intellectual property that includes patents, trademarks, copyrights, industrial processes & designs, trade secrets, and franchises. The trade in intellectual property right stood at \$519 billion in 2017.

Telecom, IT & IT enabled services ranked fourth in the global trade in services by category with their export value of USD 455 billion followed by financial services, and insurance & pension services.

All segments of trade in services witnessed surge in exports in 2017 – though to a varying degree. The strongest growth was recorded in transport services at 9% per annum. Travel, intellectual property, other business services, and telecommunications, computer and information services also experienced growth of 7 to 8 per cent. Personal, cultural and recreational services along with Insurance, pension, and financial services recorded smaller growth, with rates near 4 per cent.

Exports of transport services grew by almost 9%



Figure 5: Global Trade in Services by category (values in US\$ billions) - UNCTAD

In 2017, developing economies exported services worth US\$1.6 trillion, while exports from developed economies were valued at US\$3.6 trillion, and those from transition economies US\$122 billion. Travel remains the top category in developing economies' services exports,

amounting to US\$521 billion in 2017 and capturing 40 per cent of the global market (US\$1.3 trillion). Transport ranks second, with a value of US\$317 billion in 2017. Transport (US\$42 billion) and travel (US\$29 billion) are also the main categories of services exported by transition economies. Developed economies lead world services trade in all categories. Their services exports consist mainly of business services (US\$1.2 trillion), followed by travel (US\$760 billion) and transport (US\$573 billion).

4. Services Landscape of Pakistan

Code	Services Exports	2016	2017	2018	%Share	Change
S	All services	4,991	5,755	5,255		-8.7
SOX	Memo item: Commercial services	3,628	3,914	4,004		2.3
10	Other business services	1,099	1,328	1,442	27.4	8.6
12	Government goods and services n.i.e.	1,363	1,841	1,251	23.8	-32.0
9	Telecommunications, computer, and information services	873	1,005	1,085	20.6	8.0
3	Transport	1,053	929	847	16.1	-8.8
4	Travel	322	352	390	7.4	10.8
7	Financial services	112	163	106	2.0	-35.0
5	Construction	65	67	62	1.2	-7.5
6	Insurance and pension services	63	37	51	1.0	37.8
11	Personal, cultural, and recreational services	26	16	11	0.2	-31.3
8	Charges for the use of intellectual property n.i.e.	10	10	7	0.1	-30.0
2	Maintenance and repair services n.i.e.	5	7	3	0.1	-57.1

Table 1: Pakistan's Exports of Services (values in US\$ million) - Trade Map

Code	Service Imports	2016	2017	2018	%Share	Change
S	All services	9,219	10,576	10,123		-4.29
SOX	Memo item: Commercial services	8,706	9,858	9,559		-3.04
3	Transport	3,467	4,031	3,705	36.60	-8.09
10	Other business services	2,120	2,520	2,780	27.46	10.32
4	Travel	1,909	2,019	1,793	17.71	-11.19
12	Government goods and services n.i.e.	513	718	564	5.57	-21.45
9	Telecommunications, computer, and information services	369	424	452	4.47	6.60
6	Insurance and pension services	244	231	241	2.38	4.33
7	Financial services	242	316	218	2.15	-31.01
8	Charges for the use of intellectual property n.i.e.	221	227	189	1.87	-16.74
2	Maintenance and repair services n.i.e.	71	54	130	1.28	140.74
5	Construction	52	25	50	0.49	100.00
11	Personal, cultural, and recreational services	11	11	1	0.01	-90.91

Table 2: Pakistan's Imports of Service (values in US\$ million) - Trade Map

5. Information Technology & Information Technology Enabled Services (IT & ITES)

5.1. Introduction

Information technology has assumed a central enabling role in the emerging dynamics of a knowledge society and knowledge economy. It is a key lever of economic development triggered primarily by the 4th Industrial Revolution. The revolution has digitalized the working of our societies and as a result, the trade under IT & ITes has become

one of the fastest growing sectors in services with annual growth of more than 7%. ‘Global Connectivity Index 2018’ by Huawei claims that artificial intelligence (AI) will provide the necessary catalyst to almost double the value of the digital economy to \$23 trillion by 2025³.

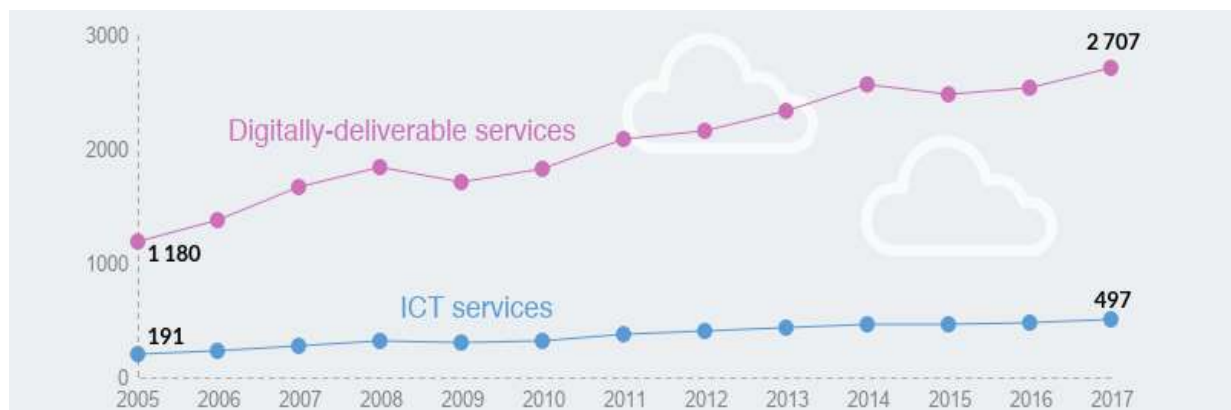


Figure 6: Global exports of ICT services and Digitally deliverable services (values in USD billions) - WTO

In the year 2018, the trade in telecom/computer and information services were around USD 518.7 billion (up 28.6% from 2017), contributing around 10% to the global trade in services. Whereas the impact of ICT services is way more than just exports, as greater access to information communication technologies (ICT) in turn furthers the exports of digitally deliverable services (i.e. insurance, financial, intellectual property charges, other business & audio-visual services). In 2017, services exports that can be

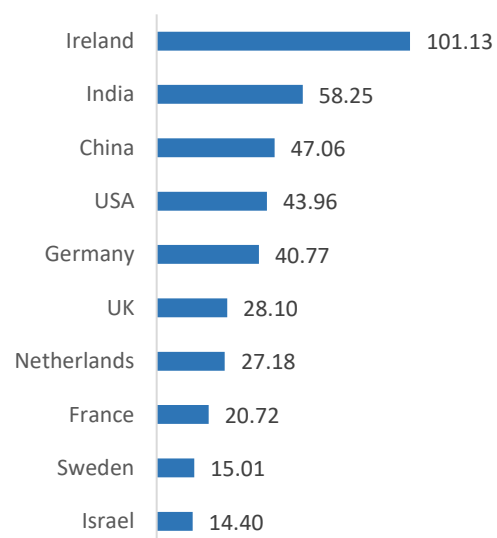


Figure 7: Top IT & ITes Exporters (2018) – US\$ billions

³ <http://telecoms.com/489985/ai-will-double-size-of-digital-economy-to-23-trillion-huawei/>

delivered digitally were 5 times greater than the value of ICT services exports. This signpost the importance of IT & ITeS services as the catalyst of economic growth and development for both trade in services & in merchandise.

5.2. IT & ITeS Classification

General Agreement on Trade in Services (GATS) under BPM-6 revision classifies Telecommunications, computer and information services in Chapter 9 whereas Manual on Statistics of International Trade in Services 2010 (MSITS, 2010) defines IT & ITeS three sub-components:

- **Telecommunications services (BPM6 Chapter 9.1)**

Telecommunications services cover the broadcast or transmission of sound, images, data, or other information by telephone, telex, telegram, radio and television cable transmission, radio and television satellite, electronic mail, facsimile, etc., and includes business network services, teleconferencing and support services. Also included are mobile telecommunications services, Internet backbone services and online access services, including the provision of access to the Internet. It does not include the value of the information transported.

- **Computer services (BPM6 Chapter 9.2)**

Computer services consists of hardware, software-related services and data processing services.

- **Information services (BPM6 Chapter 9.3)**

Information services is divided into news agency services and other information services: News agency services include the provision of news, photographs and feature articles to the media. Other information services include database services, such as database conception, data storage, and the dissemination of data and databases (including directories and mailing lists), both online and through magnetic, optical or printed media and web search portals (encompassing search engine services that find Internet addresses for clients who input keyword queries). Also included are: direct non-bulk subscriptions to newspapers and periodicals, whether by mail, electronic transmission or other means; other online content provision services; and library and archive services. (Bulk newspapers and periodicals are

included under general merchandise.) Downloaded content that is not software or an audio-visual or related product is also included in information services.

5.3. Export & Reporting data codes in Pakistan

In Pakistan, all the IT & ITeS exports are reported to State Bank of Pakistan through all operational banks in Pakistan. In this regard, companies are required to deposit their remittance in lieu of IT services on “Export Proceeds Realization Certificates (EPRC) along with Form-R”.

No.	SBP Code	Category	Description
1	9102	Call Centers	Receipts on account of services provided by Call Centers
2	9181	Hardware Consultancy Services	Receipts on account of computer hardware consultancy services provided to non-residents
3	9182	Software Consultancy Services	Receipts on account of database services provided to non-residents such as development, storage, and on-line times series. Also included are the database processing services provided to non-residents
4	9183	Maintenance and Repair of Computers	Receipts on account of maintenance and repair of computers and peripheral equipment abroad to non-residents
5	9184	Export of Computer Software	Receipts on account of export of computer software including design, development, and programming of customized system
6	9185	Other Computer Services	Receipts on account of other computer services not specified elsewhere

5.4. Growth of IT industry in Pakistan

The IT industry of Pakistan has flourished tremendously in the past decade and continues to grow at a very faster pace. According to the Pakistan Software Export Board (PSEB), the total size of the software sector is approximately \$6.5 billion including formal and informal economy, which is expected to grow at the rate of around 4 percent in the next five years. The growth of IT sector to an exorbitant level speaks volumes as IT sector exports contributed with over 1.12% share to total GDP of Pakistan in 2018 registering 6.43% year-on-year growth.

Export growth of IT industry in Pakistan has outranked all the regional competitors in South Asia during the last five consecutive years. During this period, Pakistan's IT & ITeS witnessed the growth of around 71% followed by 40.6% export growth of India and 20% export growth of Sri Lanka's IT services.

According to the Pakistan's national technology fund (IGNITE) reports, Pakistan's IT industry is set to double by 2020. The current worth of IT industry in Pakistan stands around \$3.5 billion expected to reach \$7 billion by 2020. The IT industry of Pakistan is composed of four sub-groups that add to national kitty through export of their services. According to the State Bank of Pakistan data, software exports of IT & IT enabled services that are traded through formal channels stand at \$1 billion. However, undocumented remittances (amount not recorded by SBP since such persons/ firms are not registered) from services provided by SMEs and freelancers add cumulatively \$1.5 billion to the industry's output. Fourth group fueling up the

IT sector exports are the companies and individuals who do not bring their revenues to Pakistan – account for \$600 million revenue to IT sector.

I.T SECTOR HIGHLIGHTS

 **USD**
6.5b
size of software sector

 **1.12%**
GDP

71pc
IT sector growth
Highest in Asia

+100%
set to double by
2020

\$1b 
IT & ITeS exports

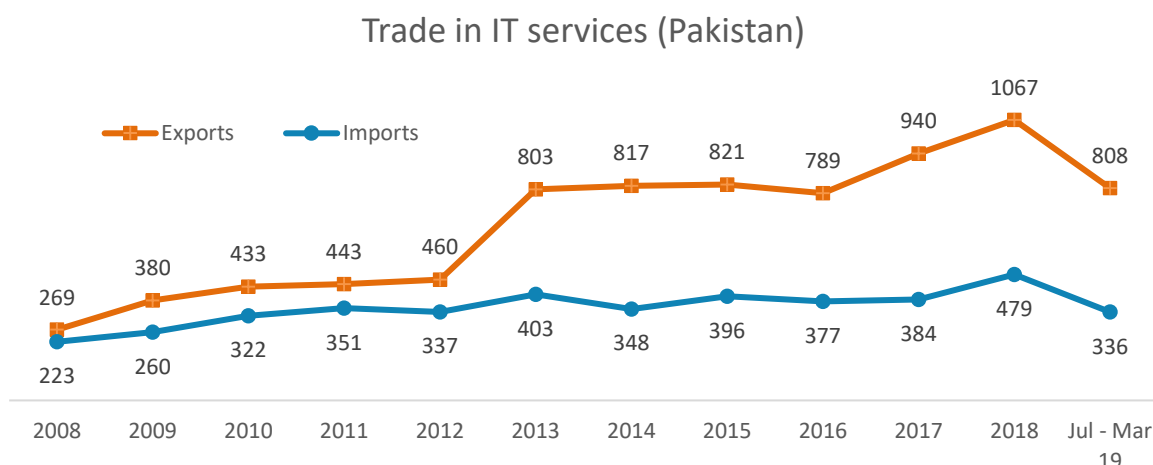


Figure 8: Imports/ Exports of IT services of Pakistan (values in USD millions)

The key factor facilitating this level of sky-high growth in the last decade is the bulging youth in Pakistan. According to a comprehensive National Human Development Report (NHDR) report launched by UNDP in 2018, Pakistan houses the largest population of young people ever recorded in its history. Pakistan is one of the youngest countries in the world by age as 64 per cent of the total population is below the age of 30 whereas 29 per cent is between the ages of 15-29 years. According to the Pakistan Technology Industry Survey 2018, the IT sector will produce around 18,000 new jobs. So, with the largest population of young people and the booming IT industry; it is sufficed to say that with right facilitation from government, IT & ITeS can yield the revenue of around USD 10 billion in the next 2-3 years.

5.5. Pakistan's Exports of telecommunications, computer, and information

In the year 2018, export share of telecommunications, computer and information services in the total exports of Pakistan remained around 20%. Pakistan's exports were around USD 1.06 trillion, registered the year-on-year growth of 13.29% from USD 940 billion in 2017. Of the total exports under telecommunications, computer and information services (USD 1.06 trillion), Pakistan exported around 53% of the said services to United States of America (USD 563 million). United States of America imported around USD 40 trillion of IT services in 2017 whereas Pakistan could hardly capture 1.4% of the market share. The leading export destinations for IT services of Pakistan after USA were United Kingdom, Singapore, Malaysia, and China.

Countries	FY15	FY16	FY17	FY18	World Import 2018
Pak Total Export of Services	5,880	5,459	5,555	5,312	
Telecommunications, computer, and information	821	788	940	1,065	348,883
U. S. A.	541	444	537	563	40,417
U. K.	42	63	76	80	16,416
Singapore	16	20	29	38	15,029
Malaysia	7	27	32	36	3,240
China	14	15	20	31	23,770
Ireland	3	6.8	9.7	22	6,377
Canada	11	15	16	20	4,827
Japan	4	11	10.6	17	15,498
Germany	9	10	13	16	36,551
Saudi Arabia	19	14.4	14	16	2,214
U. A. E.	8.9	8.9	15	16	3,458
Australia	4	6	11.8	15	3,067
Netherlands	3.6	5	6.4	12	18,095
Norway	38	6	4.8	11	4,221
Finland	0.28	1.1	5.4	10	4,456

Figure 9: Pak exports destinations of IT services (values in US\$ million) – SBP

5.6. Composition of IT & ITeS in Pakistan

IT industry in Pakistan is successfully heading towards international markets, making its mark, through their mobile applications, gaming applications, ERP software, and video graphics. Pakistan has more than 300,000 English-speaking IT & ITeS-BPO professionals & graduates and this pool is growing every year. About 10,000 IT graduates enter Pakistan's job market each year, which already comprises around 150,000 professionals and a similar number of freelancers.

PSEB IN NUMBERS



4098

Total Companies



2983

Total Call Center



8200

Interns Placement



50

Total Events

Local application developers, freelancers, and IT companies are the major driving force behind the success of the computer software sector in Pakistan. As per Pakistan Software Export Board (PSEB) data, there are approximately 4,098 registered local companies involved in a variety of

applications development for domestic and corporate use. The majority of high-end companies are involved in the development and distribution of enterprise resource management and customized solutions for specific industry sectors. In addition, there is a growing interest from local companies and freelancers to enter the online space, especially after the launch of 3G and 4G cellular spectrums in Pakistan.

The majority of these development activities involve consumer applications based on Android or Apple platforms, website development, e-wallets/payments, e-commerce, and online gaming. Most foreign firms operate either through their appointed local distributor or by having their own office with fully-equipped technical and support teams to cater to their customers' needs. If we categorize these activities according to the EBOPS 2010 framework; they are divided into Telecom services, computer services and information services.

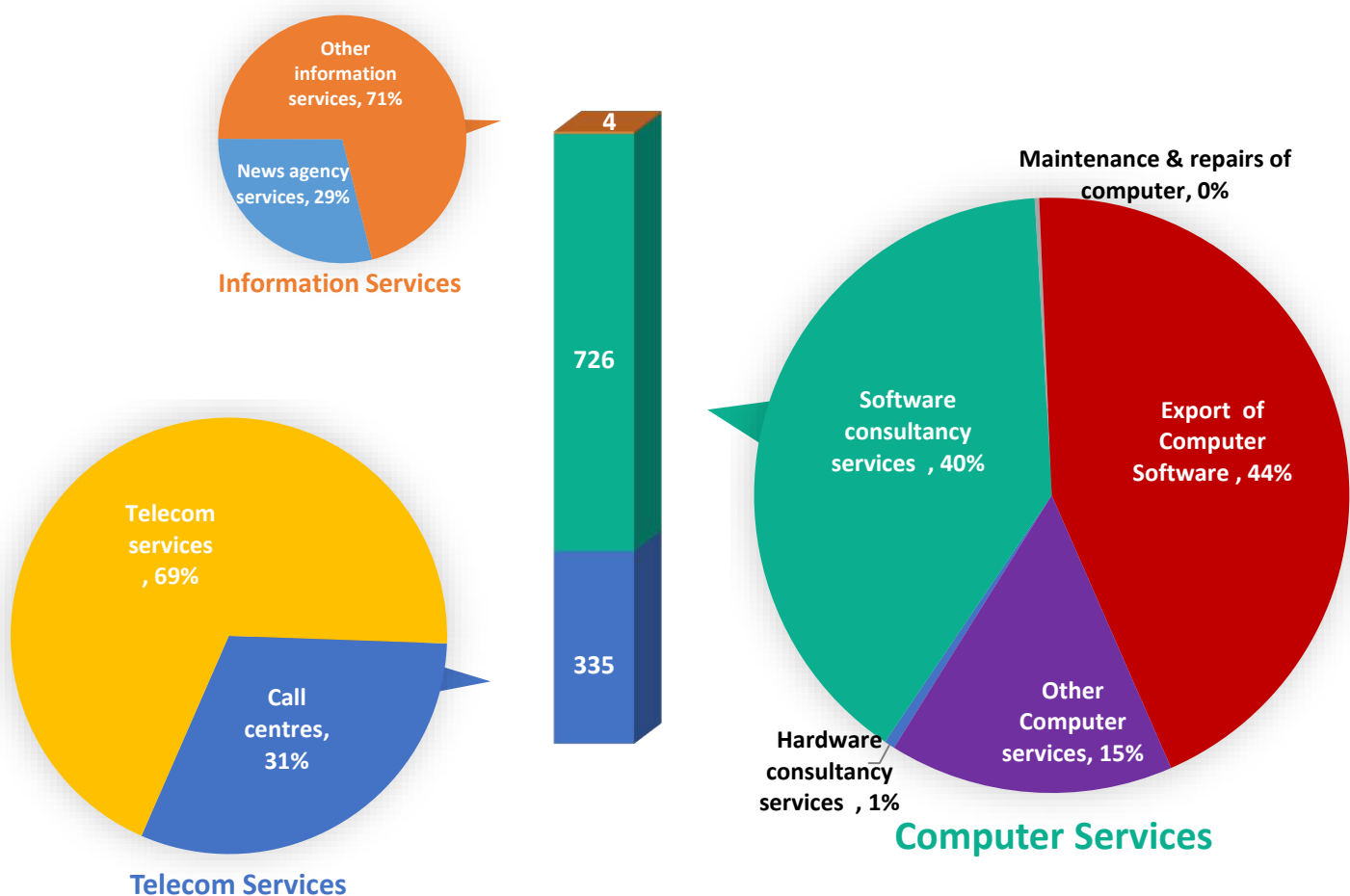


Figure 10: Breakdown of Pakistan's IT Sector Exports 2018 - SBP

Pakistan's IT exports in 2018 were USD 1.065 billion with majority of the value earned from the delivery of computer services such as hardware (\$4m) & software (\$288m) consultancy, export of computer software (320), maintenance & repair of computers (\$2m) and other computer services(\$112m). Telecom sector also contributed considerably to the national kitty with export from call centres (\$104m) and telecommunication services (\$231m). Information services being the third pillar of IT & ITeS had a nominal share in Pakistan's exports (\$4m).




EBOPS 2010 Classification		FY18	July- May '19
9. Telecommunications, Computer, and information services		1,065	966
9.1 Telecommunications services		335	310
	Call centres	104	93
	Telecom services	231	217
9.2 Computer services		726	654
	Export of Computer Software	320	286
	Software consultancy services	288	260
	Other Computer services	112	105
	Maintenance & repairs of computer	2	5
	Hardware consultancy services	4	4
9.3 Information services		4	2
	News agency services	1	0.88
	Other information services	3	1.07

Table 3: Sector-wise exports of IT & ITeS of Pakistan (values in USD million) - SBP

The export outlook of IT sector in the first eleven months of FY'19 seems promising as the total exports of telecommunications, computer, and information services remained USD 966 million from July 2018 to May 2019. In order to promote the growth and market share of IT sector in exports of Pak services; Pakistan government in coordination with private sector has established more than 15 IT parks with IT-enabled infrastructure.

Lahore

There are 8 Software Technology Parks (STPs) located at the prime location of Lahore.

- Aiwan e Iqbal Software Technology Park
- Shaheen Complex Software Technology Park
- Anjuman Himayat e Islam Software Technology Park
- Netsol IT Village
- JGC Descon Software Technology Park

- Imran House Software Technology Park
- TRG Complex Software Technology Park
- Systems Software Technology Park

Islamabad/ Rawalpindi

There are 5 Software Technology Parks located in Islamabad and Rawalpindi.

- Awami Markaz Software Technology Park
- Evacee Trust Complex Software Technology Park
- KSL Software Technology Park
- Rose Center Software Technology Park
- Meridian Software Technology Park

Karachi

- Tariq Center

5.6.1. Major IT companies in Pakistan

Pakistan Software Export Board (PSEB) with Ministry of IT and Telecommunication Pakistan (MoITT) awarded “PSEB IT Awards” in December, 2016 to the top IT exporting companies in recognition of their exceptional services in providing IT solutions worldwide. Major IT companies awarded are:

- NETSOL Technologies Inc.
- Systems Limited
- S&P Global Pakistan
- Teradata
- TRG Pakistan
- Medical Transcription Billing Co.
- Ovex Technologies
- i2c Pakistan
- LMKR
- Mentor Graphics

5.7. Government Policies

Government of Pakistan realized the emergence of Information Technology in the year 2000 and in turn Ministry of Science & Technology formulated the first ever policy titled “IT Policy & Action Plan” to promote the growth of IT industry. The policy facilitated and encouraged the private sector to drive the development in IT & Telecommunication. Government’s policies focused primarily on the development of human resources, infrastructure development, and software and hardware industry development. In this regard, government introduced various fiscal and non-fiscal incentives, carried out aggressive awareness and marketing campaigns through Export Promotion Bureau (EPB). The forthcoming decade witnessed the enthusiastic growth in IT sector related legislation and general usage of computer at all levels of government.

Last year in 2018, Government of Pakistan has announced its latest holistic policy for IT & Telecommunication sector titled “Digital Pakistan Policy 2018⁴”. The government has placed high priority on the development of IT industry at both federal and provincial levels. The policy is based upon 4 imperatives:



Sectoral Digitalization



Cross-sector Collaborations



IT sector Sustainability



Entrepreneurship & Innovation

Furthermore, government has launched numerous initiatives along with several incentives with special focus to encourage local and foreign companies to invest in Pakistan that include:

“Digital Pakistan Policy”

Key components

- Legislation
- Human Resource Development
- Infrastructure Development
- Entrepreneurship and R&I in IT Sector
- Accelerated Digitization
- E-Governance
- E-Agriculture
- E-Justice
- E-Health
- E-Energy
- E-Commerce
- Software Exports
- Cloud Computing and Big Data
- Persons with disabilities (PWDs)
- Open Source
- Digital Services
- Cyber Security
- ICT Education
- Local Languages Content Development

⁴ [http://moib.gov.pk/Downloads/Policy/DIGITAL_PAKISTAN_POLICY\(22-05-2018\).pdf](http://moib.gov.pk/Downloads/Policy/DIGITAL_PAKISTAN_POLICY(22-05-2018).pdf)

5.7.1. Fiscal Incentives

IT & ITeS Export Income Tax exemption for PSEB registered start-ups till June 2025	5% cash reward on export remittances for PSEB registered IT/ITeS companies	100% foreign ownership of IT & ITeS companies allowed	100% repatriation of profits to foreign IT & ITeS investors (subject to SBP Approval)
Income Tax holiday for venture capital funds till 2024	Reduced sales tax of 5% on domestic revenues in Islamabad Capital Territory	Accelerated depreciation of 30% on computer equipment	Provision of low rent space in Software Technology Parks (STPs), with fiber-optic connectivity
State Bank of Pakistan allowed banks to open Internet Merchant Accounts		Provision of Bank loans to IT/ITeS Industry at 5% rates under consideration	Tech SEZs - Extending the incentives of SEZs to IT industry on the cards

5.7.2. Non-Fiscal Incentives

Industry status to IT sector

Ratification of WTO's Information Technology Agreement (ITA) to eliminate tariff barriers

Call centres registration/renewal period increased from 1 year to 5 years

Call center certifications to Individual/Sole proprietors allowed

PSEB/PTA to enable telecommuting/work from home facility for the call centers

International branding, marketing & PR campaign for IT sector

Collaborations with private sector for trainings & development of IT sector

5.8. Govt. Agencies

Govt agencies involved in the policy making, implementation, registration, training, and promotion of IT & IT enabled services in Pakistan are:



Ministry of Information Technology & Telecom (MoITT)
www.moitt.gov.pk



National Information Technology Board (NITB)
www.nitb.gov.pk



Pakistan Telecommunication Authority (PTA)
www.pta.gov.pk



Electronic Certification Accreditation Council (ECAC)
www.ecac.org.pk



Telephone Industries of Pakistan (TIP)
www.tip.org.pk



Telecom Foundation (TF)
www.telecomfoundation.com.pk



Special Communication Organization (SCO)
www.sco.gov.pk



National Telecommunication Corporation (NTC)
www.ntc.net.pk



Securities & Exchange Commission of Pakistan (SECP)
www.secp.gov.pk



Pakistan Software Export Board (PSEB)
www.pseb.org.pk



Board of Investment (BOI)
www.invest.gov.pk



Trade Development Authority of Pakistan (TDAP)
www.tdap.gov.pk



Higher Education Commission (HEC)
www.hec.gov.pk



Virtual University (VU) of Pakistan
www.vu.edu.pk



Universal Service Fund (USF)
www.usf.org.pk



Ignite - National Technology Fund
www.ignite.org.pk



Punjab Information Technology Board (PITB)
www.pitb.gov.pk



Khyber Pakhtunkhwa Information Technology Board (KPITB)
www.kpitb.gov.pk



Information, Science & Technology Department Sindh (IS&TD)
<https://istd.sindh.gov.pk/>



Presidential Initiative for Artificial Intelligence & Computing (PIAIC)
www.piaic.org

5.9. Investment opportunities in IT services

The new IT sector policy 'Digital Pakistan Policy 2018' provides lucrative opportunities to invest in the fast-emerging IT & ITeS sector of Pakistan. The government is promoting start-ups, setting up incubation centres and has established Software Technology Parks (STPs) in major cities of Pakistan with high speed internet facility. Hence, there lies investment potential in areas of IT industry i.e.

- Company acquisitions and mergers
- High growth IT startups
- IT parks
- Technology incubators
- E-commerce & M-commerce
- Software companies/ houses
- Software research & development centers
- BPO centers
- Call centers
- Gaming & animation studios
- Data centers
- Training centers
- IT consulting centers

"A 20% growth in ICT investment will increase a country's GDP by 1%" - GCI

SILVER LINING

Many international IT firms have established offices in Pakistan

IBM®, Intel®, Cisco®, Microsoft®, Oracle®, SAP®, Teradata®, Mentor Graphics®, Bentley®, S&P Global®, Ciklum®

5.10. Export potential of IT & IT enabled services

In the year 2018, the world import of IT & ITeS were USD 349 billion making around 6.35% of the world's trade in services whereas Pakistan's exports of IT sector remained just above \$1 billion. IT sector comprises mainly of three sub-sectors i.e. Telecom, computer, and information services.

In Pakistan, the private sector has been more inclined towards establishment of call centres which globally are considered a low value-added segment. Irrespective of being low-end service, call centres hold significance for the developing economies like Pakistan, because they provide employment to the bulging unemployed youth. According to Pakistan Software Export Board (PSEB) statistics, as of June 2019, there were 2,983 registered call centres in Pakistan. Given the skillset needed to provide Business Process Outsourcing (BPO) services; Pakistan

has a huge potential for export of call centre services as it hosts more than 300,000 English speaking human capital and produces around 20,000 IT graduates every year. In recent times, an international competition has spurred among third world countries due to the emerging trend of outsourcing call centres services. In this regard, finding the most economical ways to develop a product, while maintaining quality is the key to secure business. Furthermore, after the installation of six internet gateways for backup internet support along with the commercial rollout of 3G/ 4G/ LTE, and extended internet connectivity via fiber-optic cables; Pakistan now has a more reliable communication connectivity with the world.

The telecommunication services are exported through the transmission of internet service, telephone communication, satellites and cable connections. In the global market, there is high demand for innovative and affordable services such as high-speed internet, e-agriculture, e-education, storage area networks, storage network services, storage products, entry level servers, enterprise networking services, 3G services, calling cards, broadband networks, and application networking services.

The recent transformations in the IT sector have not only prolonged the impacts of 3rd Industrial Revolution (3IR) but have also given way to an exponential growth in the form of 4th Industrial Revolution (4IR). The increasing popularity of artificial intelligence, robotics, the Internet of Things, autonomous vehicles, 3D printing, nanotechnology, biotechnology, materials science, energy storage, cloud computing, and quantum computing are some of the emerging potential service areas to focus for investment and export growth. Similarly, the concept of smart devices (such as smartphones, tablets, smart watches, smart meters, sensors, smart buildings, and smart monitoring devices) coupled with machine-to-machine wireless communication (such as air conditioners, refrigerators, music systems, and food processors) is also a potential service arena for export.

Realizing the changing trends, the Government of Pakistan has taken up a number of initiatives to develop the IT industry. In this regard, Ministry of Information Technology & Telecom has established two distinct organizations to explore, train & promote the potential exports of IT services.

- Pakistan Software Export Board (PSEB)⁵ – responsible for the development, trainings, certification and international marketing of IT industry.

⁵ Pakistan Software Export Board (PSEB) - <https://www.pseb.org.pk/>

- Ignite (National Technology Fund)⁶ – provides trainings for capacity building & finances to newcomers for IT startups i.e. Digiskills programme launched to train one million youth, Codiskills, National Incubation Centre (NIC).

Recently, the incumbent government introduced a training program as “Presidential Initiative for Artificial Intelligence and Computing (PIAIC)” to equip the youth with cutting-edge technological skillset in Artificial Intelligence (AI), Blockchain and Internet of Things (IoT).

Given the rapid transformation of technology and the emerging growth of IT industry in Pakistan; the most attractive market for Pakistan’s IT services exports will be the English-speaking countries or the countries where English language is widely used for communication. Pakistan can easily offer BPO services, computer softwares, software consultancy and other computer services in English. In this context, the potential export destinations with high demand of IT services are:

Countries	FY16	FY17	FY18	Pak market share	World Import 2018
Pak Total Export of Services	5,459	5,555	5,312		
Telecom, computer, and information	788	940	1,065		348,883
U. S. A.	444	537	563		40,417
U. K.	63	76	80		16,416
China	15	20	31		23,770
Singapore	20	29	38		15,029
Ireland	6.8	9.7	22		6,377
Canada	15	16	20		4,827
Australia	6	11.8	15		3,067
Malaysia	27	32	36		3,240
Saudi Arabia	14.4	14	16		2,214
U. A. E.	8.9	15	16		3,458

Figure 11: Potential exports destinations of IT services (values in million) – SBP

5.10.1. United States of America

United States of America is the biggest market for IT services – imported US\$ 40 billion worth of IT services that stand around 12% of the global trade in this sector in 2018. According to CompTIA’s Cyber states report 2019, tech market in the United States values approximately at US\$ 1.6 trillion representing 31% of the global IT market⁷. Regardless of the market size of ICT sector, around 69%



Figure 12: US % spending in key categories

⁶ Ignite (National Technology Fund) - <https://ignite.org.pk/>

⁷ CompTIA IT Industry Outlook 2019

of the technology spending occurs beyond US borders whereas Asia-Pacific is the largest IT facilitator – receiving one of every three dollars spent on technology. The bulk of IT sector spending by United States comes from the purchase made by corporate or government entities. Given the size, imports and huge spending of USA in IT services; there is huge indicative potential for Pakistan’s Telecom & computer services exports. Despite its immense potential, Pakistan could only capture the market share of just 1.39% in 2018.

US Tech industry Emerging jobs & trends 2019

- Artificial intelligence (AI) ethicist
- Data governance officer
- Building technology officer
- People analyst
- AR/VR object designer
- 3D Printing Engineer
- Marketing technologist
- Web analytics developer
- Data modeler
- Quality assurance (QA) specialist
- Robotics process automation (RPA) engineer
- Distributed ledger technology (DLT) developer
- Machine learning trainer / scientist
- AI developer
- Industrial IoT engineer
- Geospatial and mapping specialist
- Blockchain developer / engineer
- Cybersecurity architect
- Penetration tester
- Security incident responder
- User experience (UX) designer
- Solutions architect
- Full stack developer
- Technology project manager
- Chief data officer (CDO)
- AI / machine learning architect
- Container developer
- Cloud services engineer
- UX designer

12

Global Tech Hubs Put Spotlight on the Ingredients for Innovation



10

Technology Professionals Take the Lead in Anticipating Unintended Consequences



11

High Tech Increasingly Transforms Low Tech



7

Partnerships Bridge Gaps in New Tech Ecosystem



8

Persistent Tech-Worker Shortages Fuel New, Creative Solutions



9

Digital-Human Models Begin to Shape the Workplace of Tomorrow



6

Hyper-personalization Takes Customer Experience to Next Level



5

Business of Emerging Technology Prompts Sales Channels Reinvention



4

Stackable Technologies Supercharge Digitization Efforts



3

Distributed Technology Models Challenge Existing Structures



2

IoT and AI Open New Possibilities in Ambient Computing



1

Cloud, Edge and 5G Form the Modern Economic Infrastructure



5.10.2. United Kingdom

United Kingdom is the sixth largest importer of IT services with world import of US\$ 16.4 billion in 2018. The UK is the third largest digital technology leader in the world, with state-of-the-art capabilities and resources. Innovation has been the key driving factor for UK as *Global Innovation Index, 2018* ranked her the 4th most innovative place in the world with digital technology turnover of around US\$ 230 billion. The UK has one of the world's largest technology ecosystems with thousands of tech start-ups, built around a strong entrepreneurial culture. Despite the economic woes in the face of Brexit referendum, there is still huge demand for IT professionals in the UK. According to Department for Digital, Culture, Media and Sport statistics, before Brexit referendum in 2016, of the 1.5 million UK digital sector jobs, approximately 100,000 employees were European. Now, after Brexit, there remains a void of about 7% job placements in the digital sector of the UK. Pakistan can tap into the potential employment opportunities and earn remittance in UK market.

Furthermore, as per Information Services Group (ISG) index: outsourcing industry in UK has witnessed the YoY growth of nearly 20% in 2018. In United Kingdom, there is a high level of both IT outsourcing (infrastructure, application development and maintenance and network services) and business process outsourcing (BPO) across most business sectors. Interestingly enough that the UK government is also one of the main users of outsourcing services in the market across the full range of IT and BPO functions. In April 2019, Pakistan and United Kingdom have also launched a tech corridor at British Parliament to promote greater links between two countries. This is the high time that Pakistani IT industry should realize the market potential in UK and capitalize upon the IT sector capacity of Pakistan.

Large Companies in the IT sector in UK

- Accenture
- Apple
- Capgemini
- Cisco
- Cognizant
- FDM
- Fujitsu
- Google
- IBM
- Infosys
- Microsoft
- Rockstar Games
- Softcat
- Ubisoft

Major Telecom Companies

- BT
- EE
- Sky UK
- TalkTalk
- Telefónica O2 UK
- Three
- Virgin Media
- Vodafone



Areas to focus in UK market

- Applications Development
- Computer Forensics
- Content Management
- Cyber Security and Risk Management
- Data Analysis and Analytics
- Game Development
- Geographical Information Systems (GIS)
- Hardware Engineering
- Information Management
- IT Consultancy (Business and Technical)
- IT Sales
- Multimedia Programming
- Software Engineering (Designing, Building, Developing and Testing)
- Systems/Network Management
- Technical Support
- Telecommunications
- Web Design/Development

6. TDAP Initiatives

EXHIBITIONS (2018)

S. N	Exhibitions	Country	Sector	Dates	Companies Participated
1	Gitex Technology Week and Gitex Super Star	Dubai, UAE	IT sector	September , 2018	13
3	Mobile World Congress	Spain	IT sector	March, 2018	
4	National Hardware Show	LA, USA	Construction	May-18	3
5	CeBIT Expo 2018	Sydney, Australia	IT sector	May-18	4

DELEGATIONS Sent (2018)

S.No	Sector	Country	Dates	No. of Delegates
1	IT sector	Canada	24-27 October, 2018	7

7. Competitor's Industry Overview (India)

Geography (Demographics)	<p>India's highly qualified talent pool of technical graduates is one of the largest in the world and the country has a low-cost advantage by being 5-6 times inexpensive than US.</p> <p>IT industry employs nearly 3.97 million people in India of which 105,000 were added in FY18. The industry added around 105,000 jobs in FY18 and is expected to add over 250,000 new jobs in 2019.</p>
Country Standing in the world (Ranking, Award & titles)	<p>India is the world's largest sourcing destination, accounting for approximately 55 per cent of the US\$ 185-190 billion market in 2017-18.</p> <p>India is the topmost offshoring destination for IT companies across the world.</p> <p>India has become the digital capabilities hub of the world with around 75 per cent of global digital talent present in the country.</p>
Emergence of Industry	1974
Industry share in exports	<p>Revenue of India's IT industry reached US\$ 167 billion and exports stood at US\$ 126 billion in 2017-18.</p> <p>Export revenue from digital segment forms about 20 per cent of the industry's total export revenue.</p> <p>Total export revenue of the industry is expected to grow 7-9 per cent year-on-year to US\$ 135-137 billion in FY19. However, IT services exports are projected to add US\$ 10 billion in FY19 to reach US\$ 126 billion by the end of the year.</p>
Future of the Industry	<p>India's IT-BPM sector is expected to expand to US\$ 350 billion by 2025 and BPM is expected to account for US\$ 50-55 billion out of the total revenue.</p> <p>Revenue from the digital segment is expected to form 38 per cent of the total industry revenue by 2025.</p> <p>Hardware exports from India are expected to grow at 7-8 per cent in FY19.</p>
Trade promotion organizations/ Associations	<ul style="list-style-type: none"> Ministry of Commerce and Industry Ministry of Electronics & Information Technology, Government of India Electronic and Computer Software Export Promotion Council (ESC) National Association of Software and Services Companies (NASSCOM)
Trade Policy Framework	<p>'Startup India' Program</p> <p>Foreign Trade Policy (2015 - 2020)</p>

Government Support	<p>As a part of Union Budget 2018-19, NITI Aayog is going to set up a national level programme that will enable efforts in AI and will help in leveraging AI technology for development works in the country.</p> <p>The government has identified Information Technology as one of the 12 champion service sectors for which an action plan is being developed. It will set up a Rs 5,000 crore (US\$ 745.82 million) fund for realizing the potential of these champion service sectors.</p>
Trainings & Skill Development	Nasscom has launched an online platform which is aimed at up-skilling over 2 million technology professionals and skilling another 2 million potential employees and students.
Trade Incentives & Schemes (SEZ, EPZ)	<ul style="list-style-type: none"> • Digital India Program • The India BPO Promotion Scheme (IBPS) • Market Development Assistance (MDA) • Market Access Initiative (MAI) • The Government of India has extended tax holidays to the IT sector for Software Technology Parks⁸ of India (STPI) and Special Economic Zones⁹ (SEZs). Further, the country is providing procedural ease and single window clearance for setting up facilities.
Foreign Direct Investment	<p>The computer software and hardware sector in India attracted cumulative Foreign Direct Investment (FDI) inflows worth US\$ 33.36 billion between April 2000 and September 2018 and ranks second in inflow of FDI, as per data released by the Department of Industrial Policy and Promotion (DIPP).</p> <p>Private Equity (PE)/Venture Capital (VC) investments in India's IT & ITeS sector reached US\$ 7.6 billion during April-December 2017.</p>
R&D, Innovation	Leading Indian IT firms like Infosys, Wipro, TCS and Tech Mahindra, are diversifying their offerings and showcasing leading ideas in <i>blockchain, artificial intelligence</i> to clients using <i>innovation hubs, research and development centres</i> , in order to create differentiated offerings.
Standards Compliance	As of March 2018, there were over 1,140 GICs operating out of India while meeting all the compliance requirements.
Export Activities	<ul style="list-style-type: none"> • Participation in Int'l Exhibitions (i.e ICT Expo Hong Kong, Comex IT Oman, Japan IT Week, ICT Expo Kenya, Gitex Dubai etc.) • Delegation • Seminars • Open House meet • Catalogue Shows Abroad

⁸ <http://www.stpi.in/>

⁹ <http://www.sezindia.nic.in/>

8. Challenges faced by IT Sector in Pakistan

In order to furnish this report, the concerned association (P@SHA), relevant governmental organizations and professional concerning the IT sector were contacted and consulted for the prevailing problems faced by the IT industry. Some of the issues have been detailed here under:

8.1. Sustainable Growth

IT sector in Pakistan has been growing for the last two decades but the sector lacks sustainability in its business model. Enterprises/ ventures in IT sector are initiated on project basis and wind up upon the completion of those project. The business model lacks consistency, passion and sustainability to acquire new projects. Resultantly in majority cases, the sole intention to start-up venture remains to yield profits rather than deliver quality and fame to the IT industry.

8.2. Government penetration into the IT business

The IT industry lamented about government's penetration into IT business specifically criticized the role of NADRA in securing international projects in Bangladesh, Kenya, Sudan, Nigeria and Fiji. They disapproved public sector intervention into business which consequently undermines private sector's capacity to compete and flourish in the global market.

8.3. Source Destinations (Lack of Specialized Technology Parks)

Pakistan is rated as the 4th biggest freelancer market yet Pakistan lacks infrastructure, ready to hire talent, spoken English qualified & skilled labour and upgraded technology to become the sourcing destination to the world. The industry is complainant about the lack of infrastructure stating that after acquiring international projects through competitive bidding and expensive marketing when they receive orders; it takes months to actually start working entailing delays on delivering outputs. The registration & licensing process is not integrated, high-speed fibre optics connectivity is limited to very few cities, suitable office facilities, English speaking workforce for call centres and lack of ready to hire skilled talent are some of the problems that hinder IT sector output.

8.4. Market Concentrated to developed countries

Presently, the focus of Pakistan's IT sector exports and marketing activities are developed countries. Professionals in IT industry claim that there is huge potential in developing economies i.e. Africa, South America, Sweden, Peru and Denmark are some of the emerging

markets outsourcing their IT projects. Unfortunately, Pakistan has not invested enough to explore and engage these markets for business.

8.5. Commercial Counsels awareness

The IT industry also highlighted the need to spread awareness & training to Commercial Counsels (who are believed to be the eyes and ears of Pakistan abroad) regarding trade in services. Commercial counsels have a fair understanding of merchandise trade and have been active to promote Pakistan but lack understanding & knowledge to promote the services sector abroad which in turn, costs IT industry to negotiate & establish business.

8.6. Visa Issues, Security and protocol

IT sector bemoaned that despite new visa policy, removal of NOC and improvement in security situation; majority of the potential foreign investors avoid visiting Pakistan. The difficulties in acquiring visa, non-cooperative attitude of airport staff, and the rent seeking lethargic behaviour of police officers scare off foreigners who in turn prefer to either visit India or Sri Lanka or Philippines.

8.7. FTA Coverage

Pakistan has around nine bilateral and multilateral trade agreements including South Asian Free Trade Area (SAFTA) and GSP+ Concession but unfortunately only two bilateral agreements facilitate trade in services i.e. China – Pak Free Trade Agreement (CPFTA) and Pak – Malaysia Closer Partnership Agreement.