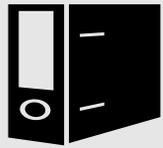


A person is holding a tablet computer. The screen of the tablet displays green text, resembling code or data. A yellow-bordered text box is overlaid on the right side of the image, containing the text 'Sector Profile Tech (IT and IT enabled Services)'. The background is dark and out of focus, showing a laptop keyboard at the bottom.

**Sector Profile**

**Tech (IT and IT enabled  
Services)**

# Sector Brief



- ▶ The 4<sup>th</sup> Industrial Revolution is currently taking place and it is digital. The actual size of the 2016 digital economy was \$11.5 trillion globally, which was 15.5% of the global GDP. The base digital assets comprise one-third, or \$3.8 trillion, while digital spillover effects account for the remaining two-thirds, \$7.5 trillion .
- ▶ Pakistan, which has about 60% of its 200 million population in the 15 to 29 age group, represents an enormous human and knowledge capital. Pakistan has more than 2000 IT companies & call centers and the number is growing every year. Pakistan has more than 300,000 English-speaking IT professionals with expertise in current and emerging IT products and technologies, 13 Software technology parks, More than 20,000 IT graduates and engineers are being produced each year coupled with a rising startup culture.
- ▶ 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. Pakistan's Information Technology (IT) sector is carving a differentiated position as the preferred source for software development, BPO and freelancing. Pakistan was ranked at number four for freelance development in the world and IT exports have increased 70% during the last three year
- ▶ Digital growth in Pakistan is going through a rapid evolution. IT/ITeS Sector is one of the fastest growing sectors of Pakistan contributing about 1% of GDP of Pakistan at about 3.5 billion USD. It doubled in the past four years and experts expect it to grow a further 100% in the next two to four years to \$7 billion.
- ▶ IT exports were recorded to be the highest in the history at \$1.067 billion in the fiscal year 2017-18 compared to \$939 million registered in the previous fiscal. Pakistan's software exports are currently worth \$700 million, according to the State Bank of Pakistan (SBP). However, the country's freelancers also earn another \$1.2 billion in exports, an amount not recorded by the central bank as they are not registered. Moreover, another \$600 million in exports are from those companies that do not bring their revenues to Pakistan.
- ▶ In accordance with Pakistan Vision 2025 and the Digital policy of Pakistan 2018, the ICT industry size is targeted to reach \$20 billion by 2025.
- ▶ Most importantly the security situation of Pakistan has improved. Startups like careem, daraz, zameen.com, rozee.pk and their success is bringing investment into Pakistan as evident from the recent acquisition of daraz and easypaisa by AliBaba. Traditional investors from other Pakistani sectors like textile, fertilizers are also taking special interest in the startup ecosystem. In the traditional IT outsourcing other south Asian nations are become increasingly expensive and these countries are finding it hard to compete in the technology areas like artificial intelligence, internet of things, cyber security, automation etc.

 **4<sup>th</sup>** Industrial Revolution  
"Digital Economy" worth \$11.5 trillion globally

 **10,000**  
IT graduates Produced each year in Pakistan

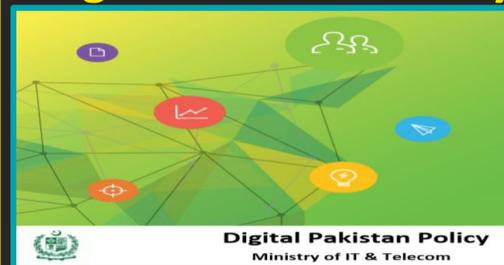
 **300,000**  
IT Professionals in Pakistan

 **4<sup>th</sup> Ranked**  
Globally For freelance development

  
**+100%**  
Growth in the value of the IT sector to a \$3.5 billion in the last 4 years. IT sector Prospected to grow to a size of \$7 billion in the next 2-4 years

 **\$1.06b**  
IT exports record, highest in FY 17-18. 30% year on year growth in the last 5 years.

## Digital Pakistan Policy



# Opportunities / Reasons to Invest



IT exports were recorded to be the highest in the history at \$1.067 billion in the fiscal year 2017-18

## Rising software exports



Internet penetration increasing from 2% to close to 30% in the past 4 years



## Broadband penetration

## Demand in the Intl market



Pakistan was ranked at number four for freelance development in the world.



## Skills availability

1,50,000 IT professionals available in the market

## Key highlights

- Pakistan's IT exports have increased 70% during the last three years
- zero income tax on IT & ITeS exports
- zero Income tax for PSEB registered IT start-ups
- 100% foreign ownership of IT & ITeS companies
- 100% repatriation of profits to foreign IT & ITeS investors
- tax holiday for venture capital funds till 2024.



## Reasons to invest in the IT sector

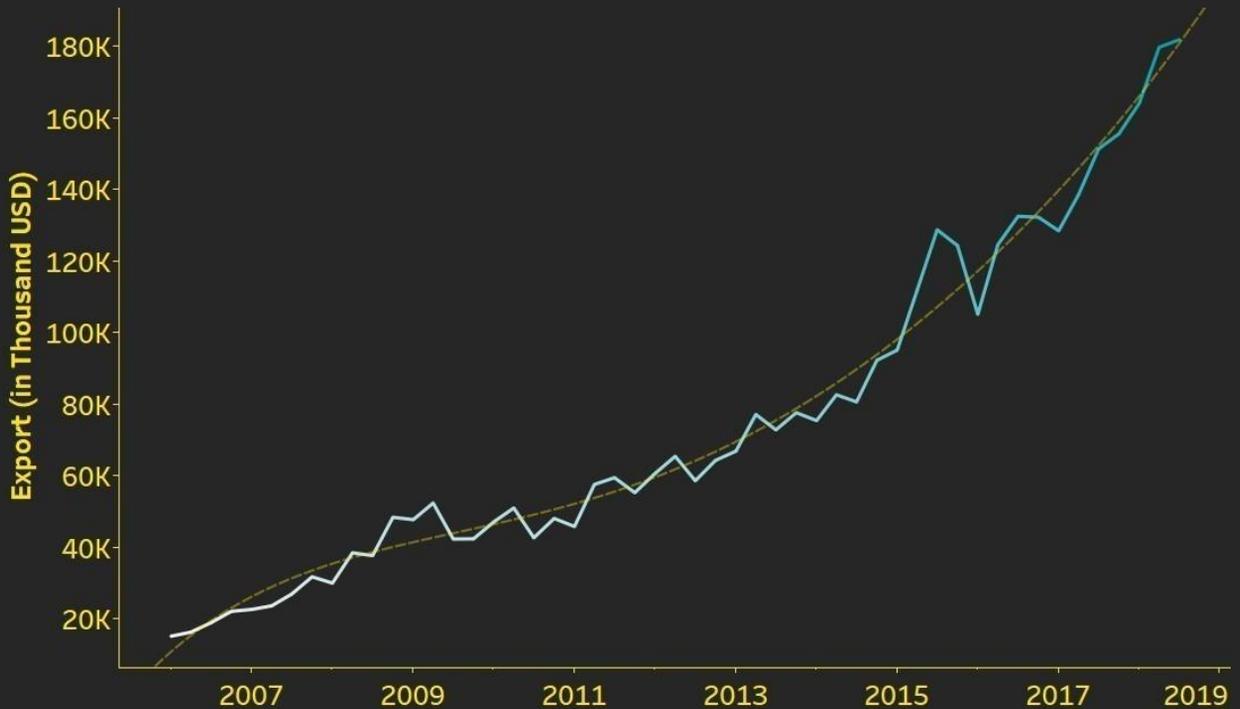


- ▶ Government of Pakistan is very enthusiastic for the advancement and development of IT industry. Recently, an agreement has been signed between ministry of technology and Korea for PKR 10bn in order to establish a technology park in Islamabad.
- ▶ Development of tech SEZ's has been seen as a key enabler in all countries where growth has taken place. Tech Special Zones have been included in the PM's Package so this will help companies bringing business and investment to Pakistan
- ▶ Pakistan's IT sector doubled in the past four years to \$3.5b and experts expect it to grow a further 100% in the next two to four years
- ▶ Pakistan's IT market is full of qualified people who are able to service the needs of the market at relatively low costs.
- ▶ There is a rapid increase in internet penetration with the introduction of 3G/4G services.
- ▶ In Pakistan, the trend of establishing incubation centers and accelerator is on rise, since every year 10,000 IT graduates are produced.
- ▶ The mobile-wallet (m-wallet) channel processed 21.8 million transactions valuing at \$3.07 billion during FY18.

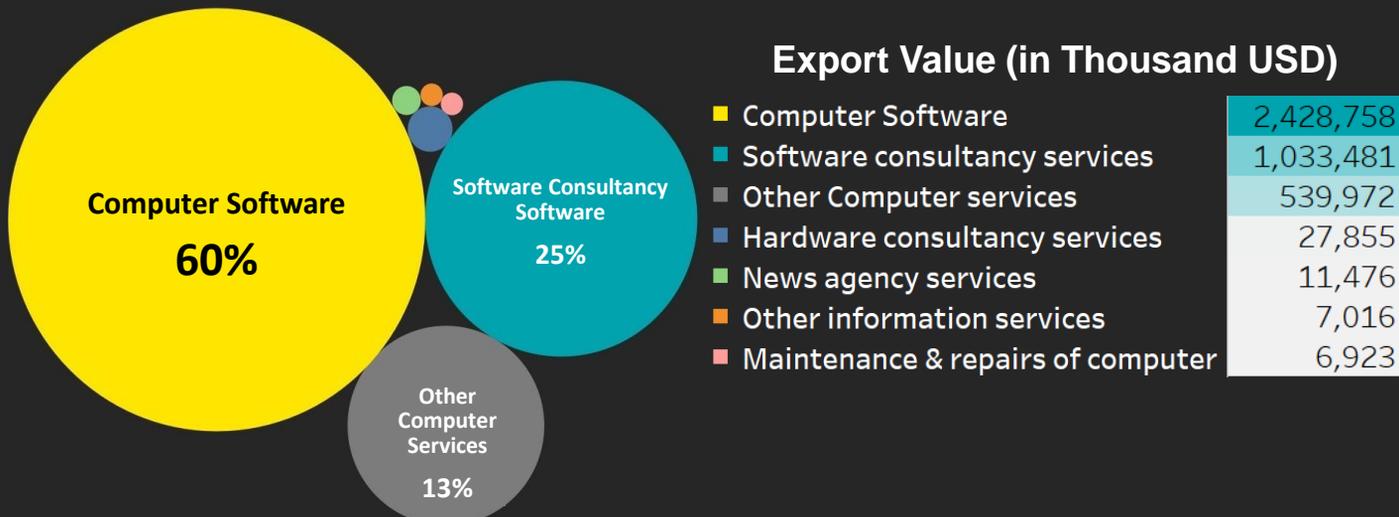
# Some useful stats



## Pakistan's IT Sector Exports Trend (2006-2018)



## Breakdown of Pakistan's IT Sector Exports



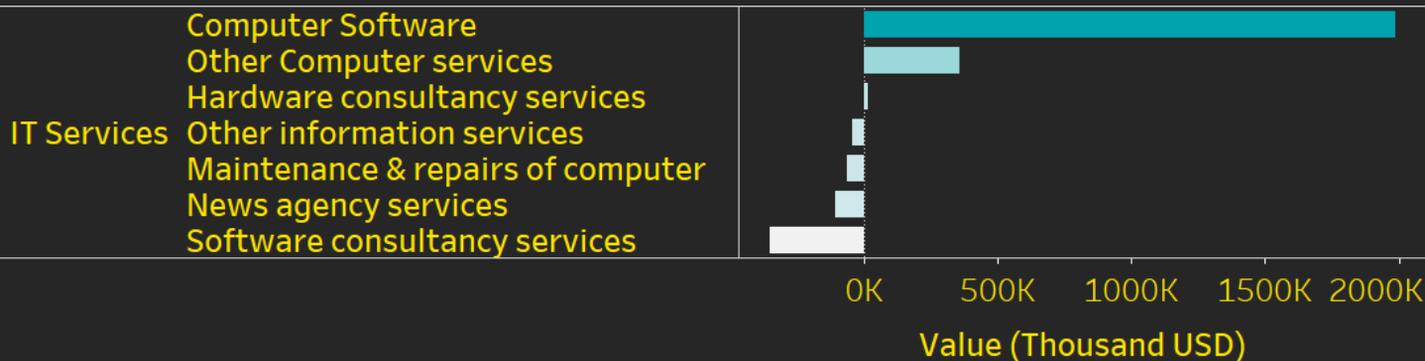
# Some useful stats



## Pakistan's IT Sector Imports vs Exports (2006-2018)



## Balance of Trade in Services by service type (Since 2006)



# Trend Analysis

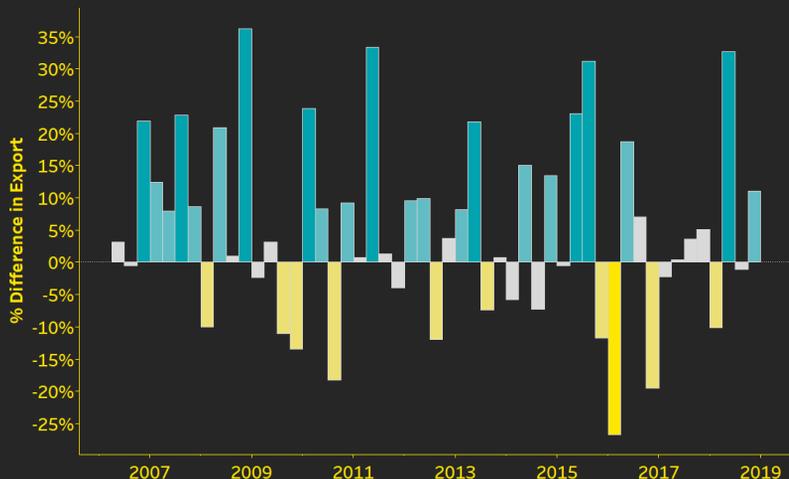
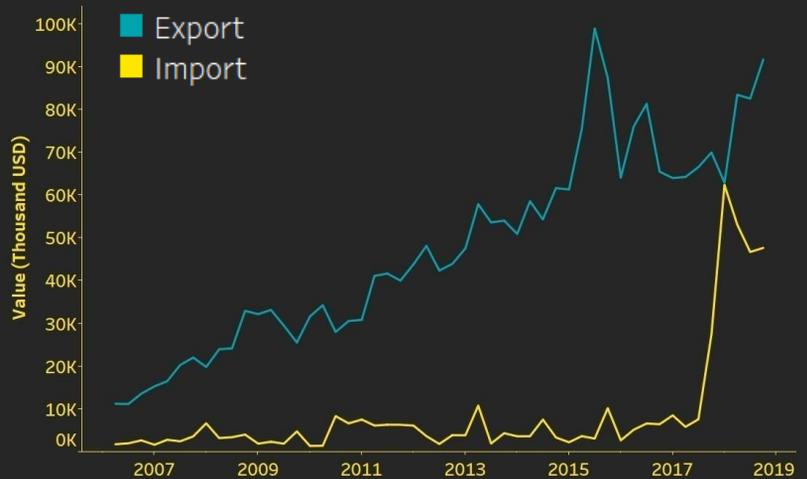


## Pakistan's Export/Import of Computer Software



Pakistan's computer software exports are the largest contributor to Pakistan's IT sector exports. They hit their peak in terms of exports in the third Quarter of 2015.

Pakistan's Export / Import of computer software, which has had a very good net surplus since 2006 saw a massive dip in Q1 of 2018. However, this surplus is again on its way up.

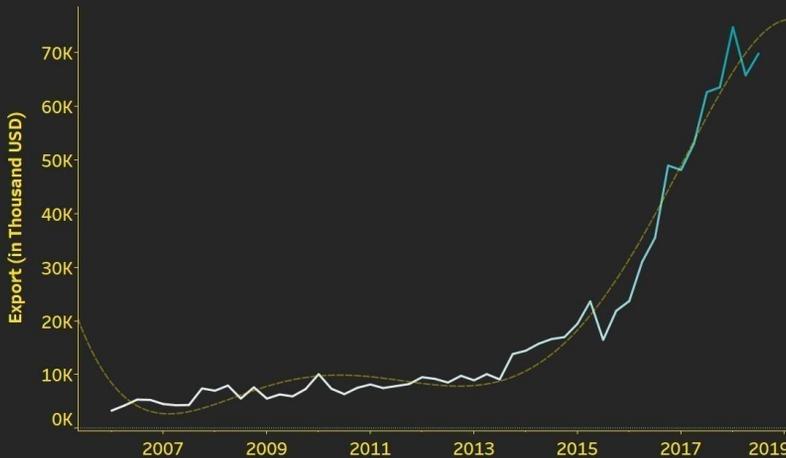


This graph shows the percentage change in quarterly exports as compared to the previous quarter.

# Trend Analysis

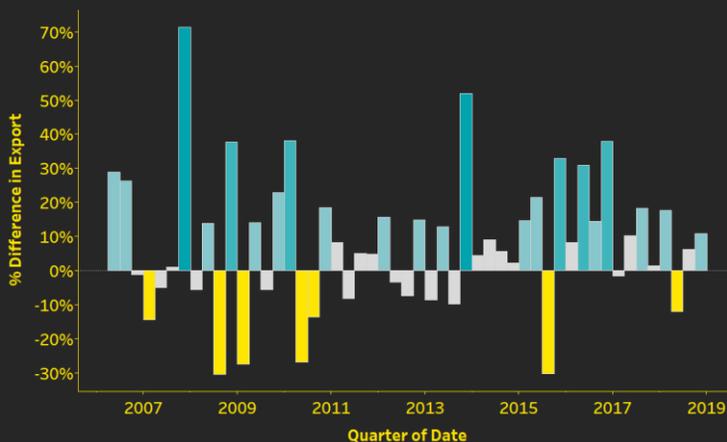


## Pakistan's Software Consultancy Services



The recent trend on the exports of Software Consultancy Services is looking very promising.

Owing to the steep rise in the exports of Software Consultancy Services, the overall net deficit between imports and exports is quickly diminishing. Since Q2 of 2017 the trade in services for software consultancy services have been in surplus.



This graph shows the percentage change in quarterly exports as compared to the previous quarter. Since 2016, the Software Consultancy Services have had a massive boost in exports with almost a monotonic rise up till 2018.

# Trend Analysis



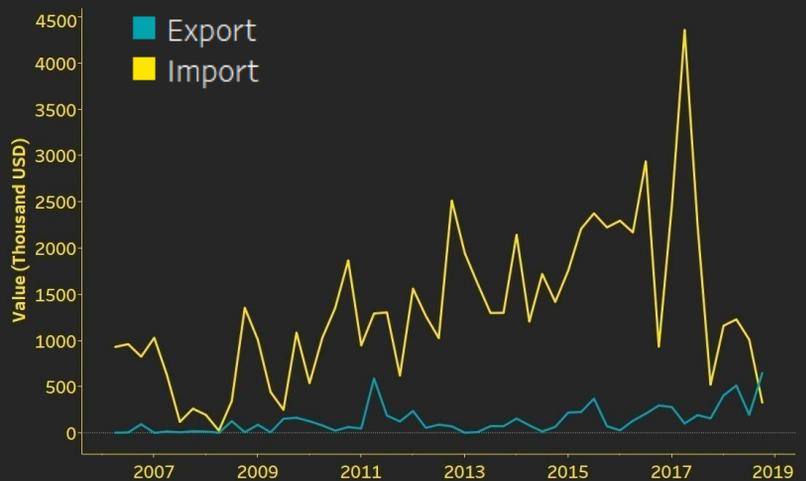
## Other Computer Services



Other computer services have seen a steep rise in exports since the start of 2017.

## Maintenance & Repair of Computer

For the first time in Q4 of 2018, the maintenance & repair of computer is expected (according to SBP) to have a net surplus, owing to a dip in imports in 2018.



# Sector Policy

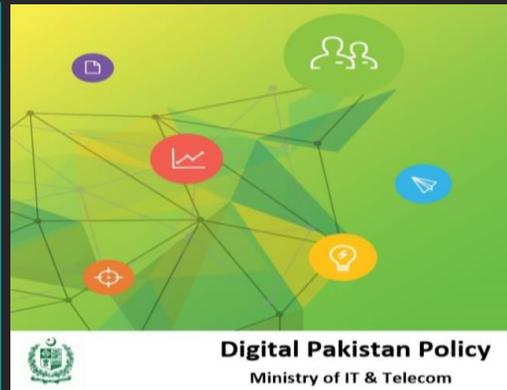


## Digital Pakistan Policy (2018)

### Vision

“To become a strategic enabler for an accelerated digitization eco system to expand the knowledge based economy and spur socio economic growth”

GOP strongly believes in mass adoption of emerging digital technologies and innovative applications to enable cross-sector socio-economic development and transformation of economic activities, governance models, social interaction, and achievement of sustainable development goals



### Objectives

- 1 Holistic digital strategy
- 2 Sectorial Digitalization
- 3 E/M-Commerce
- 4 Youth and women empowerment
- 5 Startups/ Incubators, Entrepreneurship.
- 6 Software exports, IT remittances
- 7 ICT ranking of Pakistan
- 8 Digital Inclusion
- 9 E-governance
- 10 FDI.
- 11 Persons with disabilities
- 12 Standardization

### Strategy

- 1 Legislation
- 2 Infrastructure Development
- 3 HR development, entrepreneurship, R&I and freelancing in IT
- 4 Software Exports
- 5 ICT for Girls
- 6 Local Languages Content Development
- 7 Persons with disabilities (PWDs)
- 8 Open Source
- 9 Local Manufacturing of Hardware
- 10 e-Governance

### Enabling digitization of key socio-economic sectors

- 1 e-agriculture
- 2 e-health
- 3 e-energy
- 4 e-commerce
- 5 e-justice
- 6 ICT education
- 7 IOT, FinTech, AI & Robotics
- 8 Cloud Computing & Big Data
- 9 ICT education

# Sector Policy



## Sectorial Digitization

Promote the use of technology in education, health, agriculture and other key socio economic sectors.

## E/M-Commerce

Enabling an environment where Payment Service Providers (PSP) and Payment Service Operators (PSO) can operate and establish an effective e-commerce setup.

## Digital Inclusion

Development of IT Zones/Software Technology Parks.

## Innovation

Establish a framework for setting-up incubation centers in provincial capitals & major secondary cities.

## Infrastructure

Open Digitization for shared services including cloud technologies to achieve synergies and economies of scale



## Empowerment

Ensuring women and girls have equal access to ICTs will help reduce inequalities and support gender equality. Initiate specific ICT for Girls' programs for imparting quality trainings.

## Standardization

Support standardization efforts, maximize reusability, create synergies and deliver cost effectiveness.

## Software Exports

Promote domestic software market and utilize the Pakistani Diaspora in the global markets.

# Sector Policy Objectives



## Holistic Digital Strategy

A key goal of the Digital Pakistan Policy is to create a digital ecosystem with infrastructure and institutional frameworks for the rapid delivery of innovative digital services, applications and content. This policy represents a shift away from a piece-meal approach to a holistic technology strategy clearly focused on ICT as a broad enabler of every sector of socioeconomic development.

## Sectorial Digitalization

Promote the use of technology in education, health, agriculture and other key socio economic sectors. Encourage the use of ICT in public schools and ensure they are online and have a meaningful impact on the current education eco-system in a phased manner

## E/M-Commerce

According to some estimates, the market carries an enormous growth potential due to exponential growth in broadband subscribers from 3.7 million in 2013 to over 44.3 million in 2017 and increasing. Overseas investments will continue to grow in e-commerce. Promote e-commerce by providing and enabling an environment where Payment Service Providers (PSP) and Payment Service Operators (PSO) can operate and establish an effective e-commerce setup

## Youth & Women Empowerment

Youth and Women represent roughly 60% and 49% respectively of the population. Ensuring women and girls have equal access to ICTs will help reduce inequalities and support gender equality. Initiate specific ICT for Girls' programs for imparting quality trainings in computer skills, including software coding, across the country to reduce inequalities, provide decent work and promote economic growth in line with relevant SDGs

## Innovation, Entrepreneurship, Incubators/Startups

Establish a framework for setting-up incubation centers in provincial capitals & major secondary cities facilitating IT startups to get off the ground more quickly and smoothly by tapping into a vast network of business partners and mentors, including specialized innovation centers in thematic areas including FinTech, AI, IOT and Robotics. Promote entrepreneurship by providing incentives to IT sector and training for young professionals to become freelancers

## Software exports, IT remittances & Domestic Market

The success of the IT industry and freelance sector, the ability of Pakistani IT professionals to win international awards and the availability of a large highly qualified English speaking workforce point to a huge potential for boosting software exports and outsourcing opportunities expanding the domestic market

## ICT Ranking of Pakistan

Improve Pakistan's ICT ranking based on international indices and benchmarks measuring the business & innovation environment, infrastructure, affordability, skills readiness, and socioeconomic impact. Improve the provision of data to the international rating agencies

## Digital Inclusion

(i) Development of IT Zones/Software Technology Parks: To setup at least one state of the art purpose built 'Software Technology Park' at major cities of Pakistan (federal and provincial capitals) to promote efficient and cost effective collaboration, digitization, R&D entrepreneurship and innovation. (ii) Telecenters: Setting up in unserved and underserved areas of Pakistan to provide public with easy access to ICT services.

## FDI & Standardization

Make Pakistan an attractive destination for investment in the IT/ITeS industries to create jobs and fuel economic growth.

Coordinate and support standardization efforts, maximize reusability, create synergies and deliver cost effectiveness. This includes facilitation of international standards certification e.g. CMMI, ISO, procurement etc.

## Persons with disabilities

Reduce barriers to online access for "Persons with Disabilities" (PWDs). Include provisions of prodigious empowerment of PWDs in IT accessibility

# Sector Policy Strategy



## Legislation

Promulgate necessary policy frameworks, laws and rules to enable creation of a sustainable IT environment including enactment of data protection law that covers: Protection of personal data and online privacy for improved transparency and security of confidential information through appropriate Data Protection law. Develop a framework for cloud based services and its regulation which include data classification mechanism, standards for access, data privacy & transparency, ownership and security. Continue cooperation with Ministry of Commerce to formulate e-Commerce framework/policy guidelines in consultation with relevant stakeholders in e-commerce. This will include measures such as appropriate regulation, tax rationalization, trade facilitation, Online Dispute Resolution (ODR), Consumer Protection and Privacy etc. Promote the use of digital signatures to augment data security and authentication. Amendment of relevant rules/laws related to e-Governance such as “Rules of Business”, “Secretariat Instructions” etc. to accommodate electronic workflows, processes and e-approvals.

### Infrastructure development

Establish state-of-the-art Software Technology Parks (STPs), National Technology Incubation Centers, Telecenters, e-payment gateways, Promote an Open Digitization infrastructure for shared services including cloud technologies to achieve synergies and economies of scale, access to subsidized workspaces, shared services, funding, promotional and accreditation agencies and R&D facilities

### HR development, entrepreneurship, R&I and freelancing in IT

Utilizing IT to enhance outreach and quality of education through HRD programs. Collaborating with international universities to enhance e-knowledge. Developing customized programs for women. Support startups and MSME sector. Collaborating with industry, executing internship programs. Digital skills training for freelancers. Facilitating seed funding. Promote entrepreneurship competitions

### Software exports

Emerging areas of mobile application development, responsive web applications, big data analytics, Internet of things (IoT) and cloud computing. Promote domestic software market through public sector projects. Utilize the Pakistani Diaspora in the North American, European and Middle Eastern markets. Encourage equity participation of banks in software projects by setting up venture capital funds. Encourage major multinationals operating in Pakistan to set up their software houses

### ICT girls

Initiate ‘ICT for Girls’ programs for training in computing skills. Establish computer labs in girls’ schools of underserved areas to train females in computing skills through collaboration with private sector. Provide incentives to boost digital services and applications for Girls’ empowerment (direct-to-mobile strategy). Strengthen international cooperation. To provide legal protection to females to encourage online participation

### Local languages content development

Support creation and sharing of content in natural and regional languages. Internet registry in Pakistan. Support the creation of text to speech software for all languages that can be used to enhance the utility of basic mobile phone based text messages as well as for normal computer usage. Localization of content through collaboration with local technology associations, academia and industry incubation centers to promote R&D

### Persons with disabilities

Involve Civil Society and Private Sector Organizations for developing and instituting holistic ecosystem to promote ICT accessibility for Persons with Disabilities (PWDs). Collaborate with local and international software industry to introduce ICT infrastructure and software applications for PWDs along with local language support. Ensure compliance of universal standards in development of websites that allow inclusiveness of PWD community.

### Local manufacturing of hardware

Promote the local manufacturing of IT hardware (Desktop PCs, Laptops, Mobile Handsets, Network equipment, LEDs, Microprocessors, etc.) to augment measures already in place to incentivize local manufacturing of handsets. Transfer management control of existing manufacturing concerns in the public sector to the private sector through equity participation or long-term lease, or any other public/private partnership modes. Work on Information Technology Agreement (ITA) under the framework of WTO in-line with necessities of local hardware manufacturing industry

### E-governance

Enable delivery of public services to citizens. Assist relevant department in developing technology solutions for greater effectiveness in service delivery. Establish holistic enterprise architecture through the creation of data center clusters. integration of government databases and software systems to share requisite data and knowledge. Implementation of e-procurement Enable efficient governance focused platforms for identity/transaction management, payment mechanisms, digital documentation etc. Establishment of G-Cloud to secure ICT environment.

# Sector Policy

## Enabling digitization of key socio-economic sectors



### E-agriculture

Create mobile “Agriculture Information Portal” for collection and dissemination of knowledge regarding price, horticultural diseases with remedial actions, water quality, weather updates and supply/demand data from agricultural commodity markets. Revamp Geographical Information Systems (GIS) for Pakistan to monitor the environment and plan sustainable agriculture. Prepare latest agriculture R&I material in local languages. Make available agricultural extension services by empowering and equipping farm extension workers with IT skills. Support farmers through the use of IT in relevant areas such as digital mapping, land use, soil types, meteorology, ecology, oceanography (particularly off-shore fisheries exploitation), hydrology, agricultural records etc. Build ICT capacity in agricultural institutions, farmer organizations and groups based on “train the trainer” concept.

### E-commerce

Create an enabling environment that empowers stakeholders in trade and commerce. Establish a national e-commerce gateway with the State Bank of Pakistan (SBP) with the support and coordination of relevant stakeholders to promote internet merchant accounts to facilitate B2B and other in-bound transactions. Develop a framework to allow e-banking activities. Encourage the use of e-commerce amongst general public. Promote Pakistan as a competitive (FDI) destination for e-commerce. Bring Micro Small and Medium Enterprises (MSMEs) and disadvantaged groups online to enhance their effective participation in e-commerce activities. Promote the IT enabled logistic systems of Logistic Operators, e.g. Pakistan post. Bring regulatory frameworks in-line with international obligations such as those being envisaged under the World Trade Organization.

### E-justice

Encourage use of IT to reduce delays in dispensation of justice, eradicate corruption and remove barriers to easy and equitable access to Justice. Automation will provide efficient case management and significantly reduce disposal time of cases. Provision of online forms required in various courts. Development of online portals for Judges to access various kinds of information such as calendar, pending tasks, pending cases etc. introduction of Online Dispute Resolution for low value civil claims to promote Alternative Dispute Resolution

### IOT, Fintech, AI and Robotics

Establish specialized innovation centers for FinTech, Artificial Intelligence (AI), Internet of Things (IoT) and Robotics. Promote home grown players in IoT, FinTech, AI and Robotics by encouraging an integrated startup ecosystem through collaboration with national/international incubation centers, financial institutions, universities etc.. Devise appropriate capacity building measures (trainings, seminars etc.) to promote smart technologies. Accelerate adoption of IoT, FinTech, Artificial Intelligence & Robotics and enable cost effective introduction of new technologies, targeted federal funding, and impactful public-private partnerships. Collaborate with HEC, IT industry and other relevant institutions to modernize the education curriculum.

### Cloud computing and big data

Integrate Federal Government’s distributed databases to enable data mining and analysis on big data through establishment of state of the art tier 3/4 national level data centers. Enhance the quality of e-Government services through real-time integrated management and data analytics. Discourage the establishment of silo IT infrastructures (small islands) in different government offices to mitigate duplication of efforts, HR requirements and operational expenses. Integrate national and provincial databases to avert duplication and ensure synergy. Remove legal and administrative barriers for exchange of data for citizen-oriented services and pattern analysis. Provision of cloud based citizen centric services for public. Provide a Common infrastructure platform for Public and Private Sector for the development and implementation of citizen-centric mobile applications to improve the communication between Government and the citizens. Promote the cloud infrastructure and associated delivery models (PaaS, SaaS, and IaaS) to be offered across the globe through special incentives programs.

### E-health

Accelerate the use of telemedicine to provide clinical health care to distant rural communities, especially for emergencies. Leverage access to qualified specialists by building an online network of doctors and paramedical staff working directly or remotely with them. Promote digitization and automation of existing hospitals to develop a network across the country to facilitate nationwide integration of health related records and data through a central health database/s. Legal requirements including a clear and consistent mechanism for patient data security to be ensured and appropriate instruments to be put in place at all levels. Share information for preventive care of dominant disease groups in local languages through appropriate ICT tools and technologies. Set E-health service providers accreditation and requisite protocols and standards.

### E-energy

Utilize IT to optimize energy consumption in the domestic, industrial, and retail sectors. Establish public-private partnerships with cellular operators and utility providers to utilize 3G/4G network for solutions such as smart grids, demand forecasting and availability of consumer portals to manage energy consumption. Promote implementation of a secure wireless Smart Metering system to improve control over electricity consumption and billing, theft, tampering with meters and supply lines. Adopt research developed for indigenous energy efficiency solutions.

# Areas to invest Information Technology

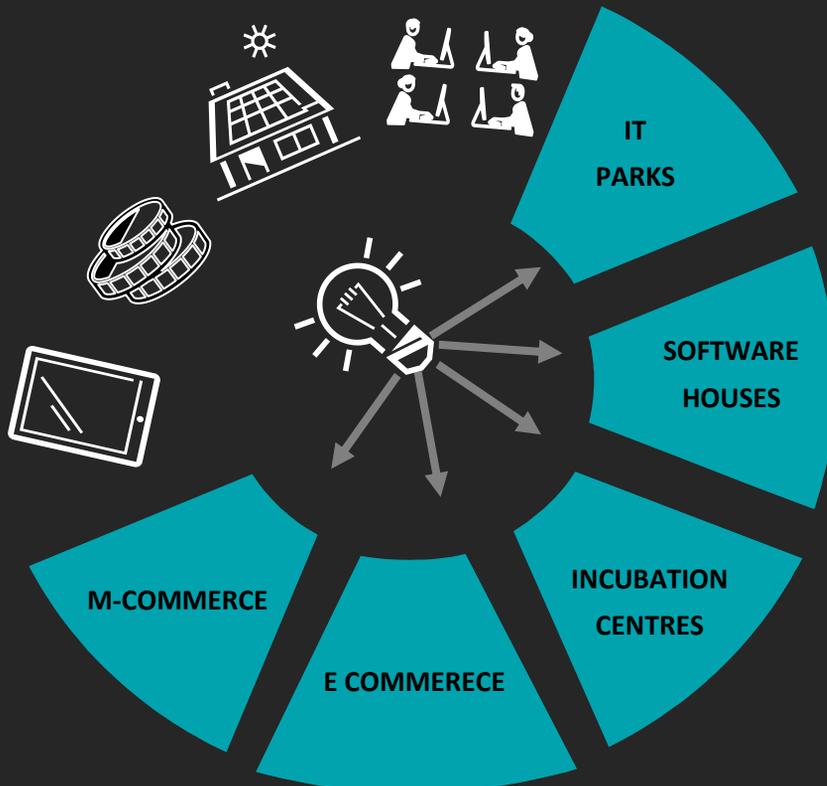


The advent of technology has made it part of daily life such that it has become an inherent part of corporate as well as domestic life. Businesses worldwide have entered digital age and success lies in the best use of it. Therefore, it has become the most fought upon frontier for competitive advantage.

Pakistan's IT industry generates approximately \$2 Billion annually for the country. With an average annual growth rate of 30%, Pakistan's IT industry has enough potential to contribute more to the overall economy. Given the apt support and facilitation from government, the sector can generate up to \$10 Billion in the next 2-3 years. Operating through approximately 120,000 employees, it is spread throughout the country (Peshawar to Karachi).

Rapid investment is fueled by the growth of exports encompassing software development along with the government support and policies. Overall country's security is favorable with respect to the expansion of IT sector

Moreover, following sub-sectors could make additional contribution to the overall growth of IT in Pakistan if provided with adequate investment and supportive policies coupled with effective regulations to run the sector.



## IT HIGHLIGHTS

**120,000 people employed by in Pakistan**

**10,000 graduates every year**

**1,800 IT companies**

**International Level Quality Certification Program By PSEB**

**25 IT companies won Silver and Gold Awards at Asia Pacific Information and Communication Technology Awards**

**International Clients - Motorola, Toyota, BMW, Halliburton and many more.**

**Foreign Investment by ZTE, Bearing point, Mentor graphics, NCR Teradata.**

# Areas to invest Software Houses



## FACTS & FIGURES

- More than 2000 Software houses and call centers, of which approximately 1,500 are registered local companies associated with the development of software for domestic and corporate use.
- FY 17 – 18: Pakistan's software exports were approximately \$5 billion – 8% over and above the previous year.
- The size of the software sector is approximately \$6.5 billion.

## SECTOR POTENTIAL

- A number of 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.
- Currently present are companies from UK, USA, Germany, Spain and China.
- Some of the notable names include: NetSoL, S&P Global, TRG Global and Teradata.

## SECTOR POTENTIAL

The local software market offers substantial business opportunities to foreign companies who offer products for the corporate sector including:

- Financial management,
- Business forecasting,
- Online IT training portals,
- E-commerce,
- E-payment,
- Embedded tools, and other web-based applications.

## SECTOR POTENTIAL

- Currently, development and distribution of enterprise resource management (ERM) and customized solutions for specific industry sectors are considered to be areas of interest by most of high end companies.
- Pakistan's IT market is full of qualified people who are able to service the needs of the market at relatively low costs.
- The Pakistan Software Export Board (PSEB), IBEX Global and Pakistan Institute of Management (PIM) have signed a memorandum of understanding to offer trainings in the areas of technical/BPO skills development. This is in order to enhance the current capacity of the BPO Industry in Pakistan,

# Areas to invest

## E Commerce



According to Bloomberg the larger number of young people in Pakistan, relative to the total population, has contributed to the rapid rise in the consumer market (more than 200 million people). Presenting growth opportunities for the likes of e-commerce companies such as Daraz whose market forecast looks positive, expanding 8.2% a year through 2021 amid rising disposable incomes.

### Current eCommerce Leaders

Some leading eCommerce websites in Pakistan include; OLX, Daraz, PakWheels, Zameen.

The larger players in the e-commerce space have started to utilize digital payments.

### Rising Internet Penetration

There is a rapid increase in internet penetration with the introduction of 3G/4G services. The total number of broadband subscribers reaching 62 million subscribers as at September 2018. This will continue due to the availability of cheap smartphones and the relatively low cost of 3G/4G services.

### High Rates of Mobile Penetration

There is room to grow as both broadband and 3G/4G Services have yet to break the 30% penetration mark (though this is increasing) while Pakistan has one of the highest rates of mobile penetration in South Asia at nearly 74%.

### Opportunities to Drive Traffic

There is heavy web traffic on Pakistani holidays and event season such as Eid-ul-Fitr, Eid-ul-Adha, and recently even Black Friday events.

### Online Grocers

Online groceries is also a very exciting and promising area for e-commerce. Currently more than 30 online grocers operate in Pakistan. The basic nature of the resources required for such a start-up is a huge positive in this regard, making setting-up easy.

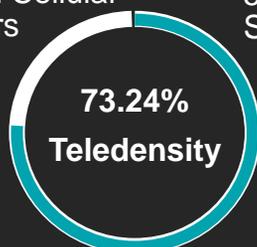


Daraz's increased marketing investment in 2017 led to Daraz reporting a 117% search increase over 2016. During Black Friday sales, total traffic of 17 Million sessions was reported over the week (an increase from 6 million the previous year).

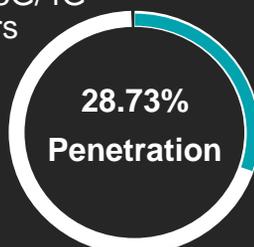
Hum Network Limited, a public limited media company based in Karachi, Pakistan, launched an online shopping platform. Currently operating in Karachi only, it has planned to go nationwide soon.



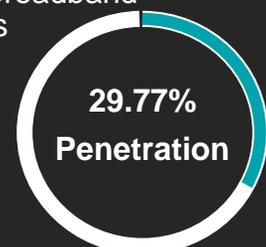
152 Million Cellular  
Subscribers



59 Million 3G/4G  
Subscribers



62 Million Broadband  
Subscribers



# Areas to invest M-Commerce



M-Commerce (mobile commerce), differs from electronic commerce in that it is centred around internet enabled mobile devices and the applications and services that may be accessible. This includes both cell phones and tablets. As mobile technology has become more accessible and further reaching in our lives, this is an increasingly exciting and important area when looking ahead at.

**152 million  
cellular  
subscribers**



**Vouch365  
BOGO (Buy One  
Get One Free)  
Lootlo.pk are all  
currently offering  
online coupon  
and voucher  
services**

Rise of e-commerce and m-commerce in South Asia with coupon usage on the increase in the South Asian market, iPrice saw a search volume of 740,000 in 2015

M-wallet to m-wallet transactions grew from 11.4 million transactions valued at PKR 40.9 billion in the first quarter of 2017 to 15.7 million transactions valued at PKR 53.6 billion

M-wallet channel crossed 23.69 million accounts in the 1st quarter of 2017, up from the 19.96 million of the previous quarter. These accounts are gradually being accepted and have shown growth of 73.3% between Mar-16 and Mar-17

As at December 2017 Telenor's total Easypaisa transaction volume stood at **\$8.9 billion**. The mobile-wallet (m-wallet) channel processed **21.8 million transactions** valuing at **\$3.07 billion during FY18**.

## Online Coupons & Mobile-Wallets (M-Wallets)

Pakistan has successful companies offering online coupons including Vouch 365, which represents popular brands across different categories, including; Restaurants, Salons & Spas, Health & Fitness, leisure, Retail, Services and Travel.

The mobile wallet launched by FINCA Microfinance Bank Ltd. and FINJA Pvt. Ltd. is a highly innovative, automated process which relies on NADRA integration and machine learning. Anyone with a valid CNIC can create a SimSim branchless bank account, in under one minute, using their smart phones.

**M-wallet share of  
customer-  
orientated  
transactions  
crossed 60% in  
September 2017**

In terms of M-wallets Easypaisa holds the most with 10.7 million accounts, Jazzcash has 10.1 million mobile accounts with UBL Omni having 2.5 million mobile accounts as at March 31st, 2017.

Pakistan e-commerce giant "Daraz" is currently offering various vouchers working in partnership with national brands such as FoodPanda and Telenor.

Ant Financial, formerly known as Alipay and an affiliate of the Chinese Alibaba Group has agreed to invest \$184.5m (USD) for a 45% stake in Telenor Microfinance Bank ("TMB"), a subsidiary of Telenor Group to further develop TMB's mobile payment and digital financial services

**73.24%  
Teledensity**



# Areas to invest

## IT Parks



More than 850,000 sq. ft. IT enabled space provided in 13 designated STPs

Science and Technology Parks (STPs) are an outcome of collaboration between community, academics, government and businesses. Technology (IT) Parks have become a primary source of innovation induction in areas which range from small sectors to large economies. Given the growth in economic activity fueled by the expansion in business dynamics, both innovation and technology have come up as the new frontiers for competition.

Around 90 Public and Private sector companies engaged in IT services.

### Government Support

Recently, an agreement has been signed between ministry of technology and Korea for PKR 10bn in order to establish a technology park in Islamabad. It will be set up in an area of 42 acres. More than 100 IT companies will be accommodated in this park. 5000 jobs will be out in market as this IT park becomes operational.

### Lower Operating Costs

Up to 70% can be saved on annual operational expenses through investment in the IT & ITeS sector in Pakistan. This is attributed to the lower average cost of the technical resources in the country. The annual cost for a software engineer in Pakistan is one fifth of the cost in USA and Europe.

### Incentives for Investors

The Government of Pakistan has a very efficient and well organized regulatory process and it incentivizes program for IT and ITeS investment in the region, as 100% foreign ownership is allowed in IT investments with 100% repatriation of profits permitted.

### Supportive Local Institutes

Another agreement has been inked between Pakistan Software Export Board (PSEB) and Pakistan Telecommunication Company Limited (PTCL), according to this agreement PTCL will be offering special discount on cloud based solutions to all software companies, call centers registered with PSEB working inside and outside of software technology parks.

These IT parks have attracted many established companies to set up their offices in there due to the low cost of rental space. With average cost of rental space coming in at PKR 70-120 per square foot

Pakistan has more than 15 IT parks with IT enabled infrastructure, out of which 13 parks are being managed by Pakistan software export board. These parks are operating in Lahore, Karachi, Islamabad and Rawalpindi.

Companies who have moved their business operations into STPs include Allainet Pvt Ltd, Interactive, PMTAC, Tejari Pakistan.

# Areas to invest

## Incubation Houses - Private



**Business incubators support the development of start-ups by providing them with advisory and administrative support services. In Pakistan, the trend of establishing incubation centers and accelerators is on the rise. Every year approximately 10,000 IT graduates are produced and there is a real entrepreneurial spirit in many who look to start their own business.**

**Pakistan is Ranked 4<sup>th</sup> Globally for freelance development**

### NSPIRE

Nspire is an example of accelerator established by reputable software house, Netsol. It is the first incubation center founded by any software company in Pakistan. It offers 4 months program and more than 15 startups have been incubated so far.



### LUMS CENTER FOR ENTREPRENEURSHIP

One of Pakistan's most distinguished and leading educational institute, Lahore University of Management Sciences (LUMS) has also established an accelerator named LUMS Center for Entrepreneurship (LCE).

**Many software houses and prestigious universities have been at the forefront in establishing incubation centers**



### NIC KARACHI

The National Incubation Centre (NIC) is housed in NED university, it has facilities to hold 40 startups at a given time with a total capacity of 200 individuals. The NIC complex is over 20,000 square feet across two buildings including innovation labs, makerspaces and training venues.



### Technology Incubation Centre-NUST

Technology incubation center (TIC) is another incubation center established under the umbrella of National university of Science and Technology (NUST). It has incubated almost 30 startups.

**10,000 IT Graduates annually**

## Start-Up Investment

- ▶ These start-ups bring in FDI through investment rounds held across the world.
- ▶ Several start-ups have been very successful operating in this manner and increased incubators can be seen as an area for investment as well

# Areas to invest

## Incubation Houses - Public



### Government Support and Startups

Extensive government support is provided to start-ups by the government through the set-up of various incubation houses to drive the growth of the IT sector.



Plan9 is Punjab Information Technology Board's (PITB) tech incubator established with the vision of kick-starting the entrepreneurial ecosystem in Pakistan. It was founded in August 2012. To date Plan9 has graduated 160 startups in 10 cycles with a gross valuation of \$70 million. With a staggering success rate of 60%, Plan9's thirty startups have raised a gross investment of \$3.5 million.



PITB seeks to promote the sustainability of technology startups through PlanX which is Pakistan's first accelerator of its kind. It was founded in September 2014, PlanX aims to empower commercially viable mid-stage technology startups by providing access to multiple funding channels, specialized network of mentors and global exposure to establish high impact businesses. To date Plan X has graduated 37 set ups with the gross valuations of \$4 million. Average amount of each set up is approximately \$10000. more than 900 jobs have been created by plan X so far.

In 2017, an initiative was taken by the Ministry of Technology and Telecommunication in collaboration with JAZZ establishing the National Incubation Centre. The vision and mission of the NIC is to provide a technologically sound environment and digital platform for promoting entrepreneurship and to create a space to discover, groom and develop high growth and high impact companies across Pakistan.

Government of Pakistan also offers lucrative incentives to startups such as 100% tax redemption.



# CPEC Impact



**China Pakistan Economic Corridor Project (CPEC) is of great significance for both China and Pakistan. China's government is looking to provide a supporting role to build a stronger technological eco-system under CPEC.**

Great potential has been identified in IT sector of Pakistan keeping in view the long term strategy of CPEC. Hence, both countries have agreed in carrying out projects related to IT as discussed below:

## Establishment of IT Park



1

The Pak-China Science, technology, commerce and logistic park will be established at an estimated cost of \$1.5 billion. This park will be built in Islamabad in area of 500 hectares. This will be in H-12 Islamabad near National University of Science Technology. It was agreed that land will be provided by Pakistan to China's Xinjiang Production and Construction Corps, with China bearing the cost of investment for 10 years.

## Optical Fibre Network



2

Special Communications Organization (SCO) has been given the task to lay down 820 km of optical fiber cable along the CPEC starting from Khunjerab to Rawalpindi. It is a \$44 million project. This optical fiber cable project will support the enhancement of telecommunication in the Gilgit Baltistan region. 50% of the work has been completed. Construction began in May 2016.

## Construction of Bio-Tech Laboratory



3

China and Pakistan have signed an Economic and Technical Cooperation Agreement, as well as pledged a "China-Pakistan Joint Cotton Bio-Tech Laboratory" as part of CPEC. The two countries also committed to build the "China-Pakistan Joint Marine Research Center" with the State Oceanic Administration and Pakistan's Ministry of Science and Technology. Also as part of the CPEC agreement, Pakistan and China have agreed to cooperate in the field of space research.

# Success Stories



Daraz began as an online fashion retailer, founded by German venture capital company "Rocket Internet" in 2012.

In 2014 Daraz switched it's strategy to become a general online market, diversifying the categories of products by offering things such as electronic appliances, health & beauty.

Daraz raised \$55 million in 2015 from the CDC-Group and the Asia Pacific Internet Group to assist with continued operations in Pakistan and penetrating Bangladesh and Myanmar markets.

As with many companies operating in the expanding e-commerce sector, Daraz has been hiring some of the best talent Pakistan has to offer, reporting a 72% increase in the number of jobs created (internally).

TCS and Daraz have signed a MoU for provision of pickup and Delivery services to the Pakistan's leading online portal.

In May 2018, Daraz was acquired by Chinese ecommerce giant, AliBaba Group for an undisclosed amount.

PKR 1 Billion revenue recorded on Black Friday sale in 2016, in 2017 this rose to PKR 3 billion

Deliveries in more than 730 cities

Employee strength of approximately 1,000

Delivery time reduced by half

Twice the employment opportunities through the introduction of the Asaan Zakat Campaign

More than 1.3M App downloads

Future Leaders program for fresh graduates

130 million websites visits

30K sellers

Acquired 150,000 sq ft warehouse

2 million products

More than 500 Brands



# Success Stories

Zameen.com, established in 2006, is Pakistan's leading online property portal. From 2010 Zameen.com began to charge fees for advertisements placed on their site. This has become the main driver for income, selling ad space for revenue.

## Investments

In 2012, the company received an angel investment by Gilles Blanchard, founder of French property website, seloger.com who has since chaired the company.

In 2014, two venture capital firms, Singapore-based Catcha Group and Malaysia-based Frontier Digital Ventures, invested in Zameen.com, really driving forward it's expansion.

A further two rounds of major investment were closed in late 2015 and early 2016, bringing in a total of \$29 million.

In August 2018, EMPG raised \$50 million for another investment round



## Expansion

March 2013 was the expansion to mobile, with a more accessible mobile version of it's website launched. An urdu version of the website was launched in the same year.

In 2014, the company launched its property magazine, collaborating with hundreds of property agencies and marketing them further through increased ad space.

The trust and reliability that Zameen.com brings to the projects taken up under its umbrella is remarkable, and the expertise of its marketing and sales teams, have led to this success, with more than 20 projects worth over PKR 40 billion marketed.

Zameen.com has attracted from 2.7 million to 3.6 million visitors to it's website between May 2018 and October 2018.



Headquartered  
in Lahore



No of Locations  
Offices: 11 cities

Official presence in  
more than 28 cities



12500  
registered  
agents

Employee  
Strength  
Over 1300

More than  
5 million  
monthly  
visitors



More than 32.8  
million views across  
all devices

Won Awards twice  
at CNBC  
international  
property awards

Over 350,000  
listings each  
month

More than 1  
Million App  
Downloads

Careem started operating in July 2012 as a website-based service for corporate car bookings, and evolved to become a transportation network company with car hire for everyday use in the Middle East.

## Investment

Total investment is \$421.7 million to date from 4 different rounds of investment. In the third round of investment, Abraaj group invested \$60 million.



## Penetration in Pakistan

Careem officially entered the Pakistani market in October 2015, investment assisting in the development of an app, a website and a helpline where customers can book rides.

## Collaboration with FleetCo

In Pakistan, Careem works with the FleetCo department. In the past year, FleetCo has established three partnerships with financial institutions JS Bank, Telenor Bank and UBL. Careem reports 3,000 vehicles have been financed so far under FleetCo's programs totaling over \$30 million of funding in the past 12 months.



## Main Investors

Careem is funded by 21 investors. Al Tayyar and Kingdom Holding company are the most recent investors.



## Key Highlights

- From 25 Captains in Dubai to almost 1 Million in 6 years - 275,000 in Pakistan
- More than 24 million users
- Expanded in more than 100 cities in Pakistan
- More 10 million App downloads



# Success Stories



CarFirst is a first of its kind for Pakistan. It is an online used-car auction and trading platform with a network of purchase centers and warehouses across the country. CarFirst offers a secure, convenient, and transparent manner to sell used cars. It also provides its dealer network access to its nationwide inventory through the online platform.

## Large Network in Pakistan

Network of over 19 purchase centers in Lahore, Karachi, and Islamabad.



## Investment

In May 2018, Naspers, the parent company of OLX invested \$89 million in Frontier Car Group which has invested in CarFirst.



## Collaboration with OLX

OLX is the No.1 online classified listings marketplace in Pakistan across 14 different categories including Auto.

CarFirst has collaborated with OLX to arrange 'CarBazaars' which are Pakistan's first used car online auctions.



## Expansion

CarFirst is expanding its nationwide network of purchase centers, by launching at several new locations, in addition to the 19 purchase centers currently operational.



## Penetration in Pakistan

CarFirst has been the recipient of the largest Series A investment in Pakistan from Frontier Car Group, and now the largest Series B investment from OLX.



## Foreign Investor

Frontier Car Group is a Berlin based startup that has built a used car marketplace expanding into developing economies.



FRONTIER  
CAR GROUP

This is a classic example as to how tech can be used to disrupt other sectors, the automotive sector in this case.

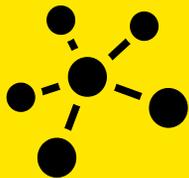
# Success Stories



NETSOL Technologies is a leader in providing innovative IT solutions to the global asset finance and leasing industry.

## About the Business

NETSOL has helped numerous businesses through the provision of end-to-end product solutions powering leasing, lending and wholesale asset management operations for more than 200 partners worldwide. Netsol's staff count is over 1,500 personnel globally.



## Q1 2019 Achievements

Netsol secured a five-year contract valued at roughly \$30 million with a European tier-one global auto captive to implement both NFS Ascent™ Retail and Wholesale platforms in China. Netsol was also selected by Speed Leasing to implement LeasePak Cloud™ SaaS platform and M-Account platform, powered by the NFS Digital™ suite. Commenced data migration project for an existing customer, which is expected to generate approximately \$500,000 in additional revenues over the next few months.

Gross profit for the first quarter of fiscal 2019 was \$8.2 million (or 50.2% of net revenues), compared to \$4.8 million (or 37.5% of net revenues) in the first quarter of fiscal 2018. The increase in gross profit as a percentage of net revenues was primarily due to an increase in total revenues of \$3.6 million, which was offset by a minor increase in cost of revenues of \$152,000.

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