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Pakistan's I.T. Sector:
Challenges and Opportunities amid Economic Crisis

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EXECUTIVE SUMMARY

The I.T. industry of Pakistan has shown remarkable growth over the past 5 years and it is expected that the sector will attain volume of US $ 7 billion over the next 4 years. The healthy state of the sector, especially that of growth of freelancing, is mainly due to development of skilled human resource and its availability to national, regional, and international markets at a relatively lower cost. Reforms of public policies has also played its role in moving towards digitalization of sectors of economy and has helped in improving the general state of the sector. However, challenges of I.T. sector are also huge and complicated. Lack of enforcement of Intellectual Property rights, absence of effective framework for e-commerce, and digital marketing remain major challenges for Pakistan that need to be addressed on priority basis.

KEY RECOMMENDATIONS

- National I.T. Policy needs to be revised in light of the current challenges and subsequently a realistic Action Plan has to be prepared in consultation with the stakeholders especially the private sector.

- Current policies pertaining to the I.T. sector also need to be aligned with the national I.T. policy to be developed after consultation. All the subservient policies need to establish clear thematic and operational linkages with the national policy.

- Conducive policy environment and operational facilitation needs to be introduced for Payment Service Providers (PSPs) and Payment Service Operators (PSOs). Addressing this lagging aspect will boost e-commerce.

- More incubators and accelerators need to be developed by the government and the private sector for which adequate support may be extended by the public sector.

– Measures should be taken to improve and enforce Intellectual Property rights.

Policy Context

IT Policy and Action Plan 2000 accords high priority to information technology and envisages government in the role of enabler, facilitator, promotor for responding to the evolving challenges of knowledge-based growth. The policy strives for providing a comprehensive framework to the I.T. industry so that intersectoral linkages and issues of governance are addressed in systemic manner. Human resource development, infrastructure development, software industry development, hardware industry development, availability of internet, promotion of I.T. and its usage, and introduction of legislative and regulatory measures are the key aspects addressed by the IT Policy and Action Plan 2000. The policy was unique in its context as it formed eleven working groups of experts to arrive at the policy recommendations that supported the policy framework and further guided the formulation of a performance indicators / benchmarks with respect to the given Action Plan and suggested projected portfolio. Since thrust of the policy was enabling the private sector, it shifted the focus away from governmental control to empowerment of private sector.

Digital Pakistan Policy 2018 propougnds its vision as “To become a strategic enabler for an accelerated digitization ecosystem to expand the knowledge-based economy and spur socioeconomic growth.” Policy objectives covering key areas like holistic digital strategy, sectoral digitalization, e-commerce, promotion of innovation and entrepreneurship, e-governance, and inclusion are indicative of the realization of needs of digitalization by the government and complement the policy framework of I.T. Policy and Action Plan 2000. Freelancing is also addressed as a pillar of digital Pakistan with resolve to launch digital skills programs. Policy on freelancing is still at the draft stage with the Ministry of I.T. but is expected to be approved with due updations and inputs by the stakeholders. Digitization of sectors and fiscal incentives along with non-fiscal incentives are significant suggested structural improvements in the national digital framework.

National SME Policy 2021 is another critical policy that shapes the contours of entrepreneurial ecosystem in Pakistan. Most significantly the recommended definitions of small enterprise, and start-up are going to have far reaching effects on the development of entrepreneurship in Pakistan. One significant policy ask therein is the teaching of entrepreneurship at university level as specialized stream in partnership with the National Incubation Centre, the Higher Education Commission, and provincial departments for education.

Pakistan Vision 2025 after the IT Policy and Action Plan 2000 may be regarded as the key policy document that encapsulates the spirit of growth through embracing technological development at national level. The Telecommunications Policy 2015 is another policy milestone as it regulates the most thriving sub-sector in the IT industry. Market competition, expansion, broadband facilitation, telecommunication infrastructure, and most importantly creation of the National ICT R&D Fund are the hallmarks of this policy that steer the continued investments in the sector and gradual increase in penetration that supports the materialization of digital Pakistan.

Prevention of Electronic Crimes Act 2016, and Research and Development Fund Rules 2006 are other enabling policy instruments that help improve and safeguard the I.T. culture in the country through exercising check over electronic crimes and regulating the use of R&D Fund respectively. National level entities established to promote IT industry and IT culture for digitalization and human resource development are Pakistan Software Export Board and National Incubation Centre that deal with different set of stakeholders with some commendable accomplishments.

Taxation regime is another policy aspect that is critical for promotion of innovation and development of entrepreneurial ecosystem in the country. Formalization of small firms within the taxation system governed by finance bill of every year by national and sub-national governments, SROs issued from time to time, and implementation and regulation by the FBR remain challenge areas for our I.T. industry.

Snapshot of the I.T. Industry of Pakistan

Pakistan’s IT and Information Technology enabled Services (ITeS) sector has been thriving over the past few years with steady growth of internal market as well as that of IT exports along with rise in freelancing. IT exports are expected to grow to US $ 3.5 5 billion from $ 2.1 billion which is indicative of the positive impact of national policy framework that could catalyse the potential of the private sector supplemented by the development of human resource and research under the direct patronage of public sector through consistent public financing. The percentage of expenditure on education including higher education to GDP may not be as per desired benchmark but absolute increase in public financing of education is noteworthy. Establishment of 16 technology parks across the country is another healthy sign for the IT industry and reporting of rise in freelancing by the Global Gig-economy Index i.e. Pakistan as third most popular country, is certainly a positive indicator of growth of IT culture. IT products and services are being exported to 120 countries with a well-developed IT infrastructure that is led by six international cables and four mobile operators. More than 10,000 IT companies are registered with SECP with an estimate of about 30% of this number of companies registered with other bodies or not registered at all. 3,567 companies are reportedly registered only in Lahore showing largest concentration of companies. 90% IT companies have been reported to be registered in 4 cities of Pakistan i.e. Lahore, Islamabad, Rawalpindi, and Karachi.

Overview of the IT industry and its performance as a sector is encouraging for Pakistan despite the ongoing debate of sectoral performance being below its true potential.

Economic Crisis and Growth of I.T. Industry

Increasing exports by IT industry and Information Technology enabled Services (ITeS) reflect a satisfactory sectoral performance despite the odds. COVID-19 jolted the entire global economy and Pakistan was no exception to it as economic slowdown and negative growth in multiple sectors emerged as its imminent results. However, the IT industry of Pakistan continued its growth recording a 23% to 27% growth during the past two years as compared to the preceding years. Rise in freelancing is symptomatic of presence of critical skills and their supply in regional and global markets. Local IT market is another facet of the industry which is estimated to stand at US $ 1 billion indicating the transformation of various sectors albeit varying pace owing to their adaptability and knowledge and financial deficit.

Economic slowdown at the national level does have negative implications for growth of IT sector by virtue of low demand levels. However, the $ 1 billion figure that posits a nudge from hundreds is again reflective of positive contribution of the private sector. It further indicates the increasing role of IT sector in creation of knowledge economy with a distinctive position with respect to other sectors of the economy. Low performance of other sectors when compared with IT sector reveals the structural and positional advantages of IT sector. Enabling environment created by conducive policy framework led to the present strong position of private sector that not only penetrated local market but also explored regional and international markets. Development of market savvy skills and capture of market share though induced and nurtured by governmental support rests with the thriving private sector that excelled with all its constraints. Non-realization of true potential of the sector is attributed to restrictive and over regulated interventions of government. However, the development of IT sector and projections of growth place the thrust in the ambit of private sector and the space it occupies opened up by public policies.

Despite positive growth of the sector and policy support in form of infrastructure development and human resource development, the target volume of IT industry i.e. $ 20 billion envisaged by Pakistan Vision 2025 and the Digital Policy of Pakistan 2018 by 2025 is most likely to be missed. Optimum projections of $ 6 billion for IT industry for the coming three years falls short of the lofty target of $ 20 billion as merely 30% of the target will be achieved.

Opportunities and Challenges

Following major opportunities have been identified after consultation with the stakeholders for I.T. industry of Pakistan amidst the on-going economic crisis:

1. Pakistan is considered to be at the cusp of Fourth Industrial Revolution in terms of human resource development opportunities as sectoral growth has manifested over the past few years. Therefore, there exists lot of potential for reaping optimum benefits of state of sector within the country and through its regional and national market linkages.

2. Increase of internet penetration across the country couple with increased opportunities for learning and capacity building have created ripe conditions for adding value human resource to the industry. therefore, sector can benefit a great deal from this opportunity and cultivate strong academic linkages as per its current and futuristic needs.
3. Human resource development and growth of SMEs jointly pose promising opportunities for the industry as the number of incubators and accelerators have risen over the years and are adding to the market volume and quality.
4. Sectoral growth has shown promising progress as a national indicator of progress over the past years i.e. the I.T. sector stands at US $3.5 billion. It is expected that the in the coming three to four years it will reach around $7 billion.
5. Competitive edge of Pakistan's I.T. industry lies in its comparatively low-cost services available to the international and most of the regional markets. Therefore, the same value may be enhanced over the coming years by competing for larger shares of regional and international markets while maintaining the required quality standards.
6. Freelancing has emerged as a fast-growing sub-sector in Pakistan whereby Pakistan stands in top three countries with highest volume of business. Growth of freelancing may be directly associated with the aforementioned factors of developed human resource and that too available at a low cost. The level of expertise and services provided by Pakistani freelancers speaks for its standing in the regional and international markets. Acquisition of higher skills and polishing of the existing ones as per the market needs is likely to accelerate growth and provide employment.
7. Business opportunities provided by E-commerce (emerging opportunities due to operations of Amazon) carry huge potential for local actors in form of placement of products but also with respect to provision of technical assistance to to aspiring SMEs and larger businesses. Thus, I.T. professionals can act as conduits of market accessibility and business growth.
8. M-Wallet provides huge opportunities for investment in the I.T. sector as the country has more than 152 million cellular subscribers.
9. Seriousness of the government is visible with respect to reforms for I.T. sector and commitment for development of technology parks across the country. Public-private partnership in this regard will boost the I.T industry and catalyze environmental progress and sectoral growth. Moreover, development of technology centric Special Economic Zones (SEZs) will further create the much-needed market interface of local and international businesses.

Challenges of I.T. industry from a policy perspective are manifold and the significant ones are presented below:

1. Absence of a holistic digital strategy harms the functioning of multifaceted aspects of I.T. industry and its sub-sectors. Since, current policy instruments recognize it as a key enabler, more concrete actions are required on part of the government to make use of opportunities for sectoral growth.
2. Payment Service Providers (PSPs) and Payment Service Operators (PSOs) are integral actors of e-commerce and Pakistan has been struggling to provide adequate environment for them to flourish. Therefore, it is the responsibility of the government to create conducive environment for growth of PSPs and PSOs.
3. Conversion and success rates of incubators call for strengthening of the ecosystems governing innovation and technology centric entrepreneurship. Without strong ecosystems for the aforementioned aspects, Pakistan will continue to fall short of successful start-ups adding to the growth of SMEs.
4. Digital marketing is another challenging aspect I.T. industry of Pakistan.

Freelancers as well as other business of varying scale suffer at the hands of lack of digital marketing skills whereas adequate identification of target markets, branding in accordance with market pulse, and effective outreach to potential clients can help boost the industry. Government may collaborate with the private sector to introduce I.T. facilitation desks.

5. Lack of enforcement of Intellectual Property (IP) protection measures across the country despite the presence of IP laws / regulations is a big challenge for the I.T. industry especially the software industry that cannot expect exclusivity and safeguard measures for its knowledge product.

6. Absence of an effective framework to boost e-commerce is hurting the I.T. industry of Pakistan despite the existence of great potential for optimization of current growth trends in the face of legal and policy conditions.

7. Incentives for hardware manufacturing for I.T. sector are missing from the policy landscape that can save foreign exchange and add to the local expertise.

This Policy Brief Series is the product of Azra Naheed Centre for Research & Development (ANCRD).

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