

IT Policy Landscape of Pakistan

Challenges and the Way Forward

Policy Brief

The IT sector has been one of the fastest-growing industries in Pakistan in recent years, contributing significantly to the country's GDP. Despite encountering numerous challenges, the sector is experiencing rapid advancement. Pakistan's IT policy landscape is undergoing continual evolution and demonstrating consistent improvement. This policy brief outlines the current state of the IT policy landscape, highlights the challenges hindering its growth, and provides recommendations to mitigate these challenges.

Introduction

Information Technology (IT) plays a dynamic and pivotal role in the transformation of the knowledge economy and has established itself as a potent instrument for fostering economic development. Its influence extends across diverse sectors, including agriculture, manufacturing, services, education, health, and government. By enhancing productivity, efficiency, and competitiveness, IT contributes significantly to overall economic growth.

The multifaceted impact of IT is reflected in its potential to generate employment opportunities, improve human capital, enhance governance, promote social inclusion, attract investment, and streamline market and institutional efficiency. Beyond economic considerations, IT also holds the promise of elevating social welfare and contributing to environmental sustainability. This is achieved through improved access to information related to education, healthcare, and public services, as well as efforts to reduce energy consumption and carbon emissions.

Recognizing the transformative power of IT, the Government of Pakistan has articulated a visionary agenda known as the Digital Pakistan Policy. This strategic initiative aims to expand the footprint of the digital economy, fostering economic prosperity and public empowerment. The government is committed to enhancing the quality of life and overall well-being

by ensuring that IT services are not only accessible but also affordable and universally available.

The government has developed a comprehensive strategy focusing on several key pillars to achieve the Digital Pakistan Vision. These include:

- **E-Governance:** Implementing effective electronic governance systems to enhance government services and improve administrative efficiency.
- **IT Infrastructure:** Investing in robust IT infrastructure to provide a solid foundation for digital advancements across various sectors.
- **Human Capital Development:** Prioritizing capacity building in both the public and private sectors to nurture a skilled workforce capable of driving digital innovation.
- **Innovation and Entrepreneurship:** Encouraging a culture of innovation and entrepreneurship to harness the full potential of IT for economic growth.
- **Development and Export of IT and ITeS:** Promoting the development and export of IT and IT-enabled services to position Pakistan as a global player in the digital marketplace.
- **Fintech, E-Commerce, and Digital Platforms:** Fostering the growth of financial technology, e-

commerce, and digital platforms to facilitate seamless transactions and business operations.

- **Privacy and Security:** Ensuring the protection of privacy and cybersecurity to build trust in digital interactions and transactions.
- **Partnership and Collaboration:** Actively engaging in partnerships and collaborations with various stakeholders, including the private sector, to collectively drive the digital transformation agenda.

In essence, the Digital Pakistan Vision is a strategic roadmap that underscores the government's commitment to harnessing the full potential of IT for the holistic development of the country, blending economic progress with social inclusion and environmental responsibility.

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The landscape of IT policy transcends mere restrictions, encapsulating a visionary approach driven by specific goals and targets. Earlier, during the Year 2000 (Y2K) wave, the policy formulation committee of different software houses highlighted the persistent focus on attaining specific targets as a fundamental aspect. The prospective worldwide ramifications of the Y2K wave problem underscored the susceptibility to system failures arising from date-related programming issues. The current IT policy in Pakistan is characterized by public-private partnerships, reflecting a positive trajectory. It is led by highly experienced professionals who are steadfast in their commitment to propel IT exports to new heights.

In the contemporary IT landscape, marked by advancements in artificial intelligence, cloud computing, and the Internet of Things, the need for a robust regulatory framework becomes imperative. Such a framework is essential not only for resolving technical conflicts but also for ensuring business continuity. Recognizing the challenges many IT projects face, a critical factor contributing to their failure is the often overlooked aspect of business continuity planning.

The regulatory framework, therefore, assumes a pivotal role in defining minimum standards for information and communication technology (ICT) projects to guarantee their success and resilience in the face of challenges. Moreover, in today's digital era, the ICT landscape is central, demanding a regulatory framework that not only establishes standards but also evolves in tandem with the dynamic nature of

technology, positioning ICT as an integral component in business development.

Challenges Faced by IT Sector in Pakistan

The Pakistani IT sector confronts a myriad of challenges, both domestically and on the international front. Recent geopolitical events, such as the conflict in Ukraine, underscore the need for a robust regulatory framework to safeguard national interests, especially considering the impact on international service providers. Additionally, misconceptions about the quality of cloud services in Pakistan persist, contributing to a challenging landscape. Despite sincere responses from Pakistani support centers being favored by international clients, the perception issue remains and is amplified by language barriers in customer support.

On the financial front, the absence of major service providers operating directly from Pakistan poses challenges in international transactions influenced by external pressures. A strong regulatory framework and strict policy adherence are deemed essential to navigate these complexities effectively. Continuous improvement, reviews, and audits of ICT policies and regulatory frameworks are crucial for adapting to the dynamic technological landscape.

The challenges extend to the domestic arena, where a significant gap exists between industry demands and the skills possessed by the workforce. This skills mismatch stems from inadequate focus on technical education and outdated curriculums, hindering the industry's growth potential. In addition, inadequate infrastructure, slow internet speeds, and frequent power outages create hurdles for productivity, discouraging potential foreign investors.

A critical bottleneck for the IT sector lies in the limited emphasis on research and development (R&D), impacting innovation and global competitiveness. Homegrown IT companies struggle internationally due to constrained investments in R&D, hindering breakthroughs and novel product development. Inconsistent government policies and regulatory uncertainties further compound the challenges, acting as deterrents for both local and foreign investors.

Access to financing and venture capital proves to be a hurdle for many IT startups and entrepreneurs, contrasting with more traditional sectors. This lack of financial support restricts scalability and growth potential, limiting contributions to the industry. Currency parity issues and exorbitant import duties, especially amid PKR vs USD fluctuations,

significantly raise the cost of acquiring hardware and software solutions, diminishing the industry's global competitiveness.

Addressing these multifaceted challenges necessitates strategic interventions, emphasizing the importance of a conducive environment for the growth and sustainability of Pakistan's IT sector. The sector's resilience and adaptability will be pivotal in navigating these obstacles and fostering a thriving digital landscape.

Conclusion

In conclusion, the IT sector landscape in Pakistan is marked by both transformative opportunities and significant challenges. The Digital Pakistan Policy, spearheaded by the government, reflects a visionary agenda to harness the full potential of IT for economic development, social inclusion, and environmental sustainability. The strategic pillars of this vision, ranging from e-governance to fostering innovation and entrepreneurship, underscore a comprehensive approach to drive the digital transformation agenda.

Simultaneously, the IT policy landscape demonstrates a positive trajectory, with a focus on achieving specific targets and embracing advancements like artificial intelligence and cloud computing. The integration of ICT atop IT emphasizes the crucial role of trust in technology and the need for robust policies and frameworks to ensure a secure digital environment.

However, these aspirations and positive trends are accompanied by challenges. Domestically, there is a notable gap between industry demands and the skills possessed by the workforce, compounded by infrastructure limitations and inconsistent government policies. Internationally, the perception of cloud services and challenges in financial transactions pose hurdles, requiring a strong regulatory framework and continuous adaptation to a dynamic technological landscape.

The challenges faced by the IT sector extend to access to financing, limited focus on R&D, and the impact of currency parity and import duties. Addressing these multifaceted challenges demands strategic interventions and emphasizes the importance of creating a conducive environment for the growth and sustainability of Pakistan's IT sector. The sector's resilience, adaptability, and commitment to innovation will be pivotal in navigating these obstacles and realizing the full potential of a thriving digital landscape in the country.

Policy Recommendations

To unlock the full potential of Pakistan's IT sector and address the existing challenges, a strategic set of policy recommendations is essential, spanning education, infrastructure, innovation, governance, and international collaboration.

- **Enhanced Investment in Technical Education:** It is crucial to address the skills gap by allocating resources to enhance technical education, ensuring that curriculums are updated to align with industry needs. Collaboration between educational institutions and industry players can facilitate a more practical and relevant learning experience.
- **Infrastructure Development:** The authorities should prioritize infrastructure development, including improvements in internet speed, reliable connectivity, and consistent power supply. This can be achieved through public-private partnerships and targeted investments to create a robust foundation for IT operations.
- **Promotion of R&D:** There is a dire need to encourage a culture of innovation and R&D within the IT sector by providing incentives, grants, and support for homegrown companies, especially when the IT sector boomed during the last few years. This can foster breakthroughs, product development and enhance the sector's global competitiveness.
- **Consistent Government Policies:** For a stable and successful IT sector, it is necessary to ensure stability and predictability in government policies to attract local and foreign investment.
- **Financial Support for Startups:** Establish mechanisms to improve access to financing and venture capital for IT startups and entrepreneurs. A pool of dedicated funds can be created, offering financial incentives and streamlining the application process, which can unlock the growth potential of innovative ventures.
- **International Collaboration and Partnerships:** Actively engage in international collaborations and partnerships to exchange knowledge, attract investment, and foster a global perspective. This can provide the IT sector in Pakistan with exposure to best practices and emerging trends.

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