



PAKISTAN'S CYBER SECURITY GOVERNANCE: CHALLENGES AND WAY FORWARD

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In a virtually connected world, digital gadgets and associated services have become a fundamental part of human life. Such devices and services are increasingly exploited by state and non-state actors for cyber-related and cyber-enabled crimes, which fall in the realm of cyber security. Countries are increasingly adopting new technologies across various business spheres, and Pakistan is no exception. With the world becoming more and more interconnected through Information Technology (IT), cyber security threats are multiplying and posing a fuzzy future for a digitalized world. Since the global penetration of internet users has increased exponentially (5 billion internet users forming 63.1% of the world population, out of those, 40.7 billion are social media users who make up 59% of the world population).¹ In recent years, there have been millions of cyber-attacks targeting infrastructure and services; therefore, effective cyber security is a need of the day. In the emerging cyber age, it is important to understand the impact of cyber security, data sovereignty and privacy of users linked to the sovereignty of a country.



Thus, Pakistan faces cyber security challenges in critical infrastructure, governance and institutional framework. According to Global Cyber Security Index (GCI), Pakistan is lagging in technical and organizational measures, posing an imminent threat to its national security.² The cyber security landscape of Pakistan presents a looming picture in terms of the promotion of data governance and protection, virtual privacy, capacity building, national and global cooperation, and special emphasis on setting up the adoption of a risk-based approach. Most importantly, issues such as the lack of governance framework, ineffective implementation mechanism, excessive reliance on external resources and inadequate human resources are creating difficulties in maintaining a cyber security posture. According to a survey, Pakistan is rated 79th worldwide for cyber security capabilities.³ In this way, Pakistan's growing reliance on Information and Communication Technologies (ICT) has increased vulnerabilities in diverse fields of security and the arena of global cyber-crimes.

Pakistan announced its first Cyber Security Policy in 2021. The draft policy requires extraordinary measures to address critical cyber issues causing challenges to Pakistan's national security. This policy objectifies a governance and institutional framework for the secure functioning of public and private organizations in compliance. Cyber Security Policy 2021 comprises 17 distinct policy deliverables, 16 of which are directly linked to cyber security. These policy deliverables present a spectrum of e-governance, technology, human resource and, particularly, cyber awareness. In a nutshell, cyber security governance is being run under exclusive national cyber security frameworks, as seen in the best practices worldwide. For the protection of cyber frontiers of a country, frameworks are arranged in an institutionalized manner. In such systems, chief information security officers directly report to chief executive/ risk officers assigned for risk management who have dedicated security budget and performance evaluations of cyber security measures, which are entirely independent of the ICT domain, across the globe.⁴

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In Pakistan's case, a Cyber Governance Policy Committee (CGPC) was also constituted after the announcement of Cyber Security Policy to effectively implement cyberculture and cyber force. Unfortunately, ownership and strategic oversight regarding the cyber security spectrum were neglected due to weak governance and inadequate institutional framework.⁵ In this way, policy recommendations and implementation await the approval of the Federal Cabinet. However, the implementation of Cyber Security Policy and coordination among institutions while establishing an independent authority are essential for Cyber Security Governance in Pakistan.

In order to mitigate Cyber Security Challenges, the Government of Pakistan established National Center for Cyber Security (NCCS) in 2018, whereas NCCS only deals with applied and theoretical areas to fight cyber-crimes. NCCS is also working on Cyber Reconnaissance, Cybercrime Investigation, Block Chain Security, Digital Forensics, Intrusion Detection Systems and Malware Analysis. Lack of institutional coordination, cooperation of stakeholders and synergy in public and private partnerships are some other challenges for effective cyber security governance. However, policymakers need to clarify the governance structure and operating framework of Cyber Security Governance with effective implementation of policy deliverables and proper digital hygiene to protect data and individual and organizational privacy.

In this milieu, followings are recommended:

- The approval of the Federal Cabinet for establishing the National Cyber Security Authority (NCSA) is the need of time. NCSA will serve as a central body at the federal level, mainly responsible for coordinating and implementing cyber security measures at national, provincial, and all organizational levels.⁶

- The establishment of an indigenous cyber army (known as keyboard warriors) under the umbrella of NCSA is suggested to achieve desired dividends.
- There is a dire need to establish a mechanism through NCCS and NCSA for capacity building and research culture, exclusive research and development domain, innovation in a public-private partnership for better synergy, and intra-institutional coordination to manage internet/ cyber protocols.

Implementation of Cyber Security Policy, synergy and coordination among institutions/ stakeholders while establishing an independent authority are essential for Cyber Security Governance in Pakistan.

The recent Cyber Policy highlights Pakistan's vision on cyber; not only restricted to securing assets but also emphasizes establishing resilience through a robust and continually improving digital ecosystem as well as establishing independent cyber authority to ensure the cyber security of Pakistan. Pakistan's Cyber Security Policy provides a comprehensive direction for protecting cyber infrastructure, emerging global cyber trends, technological advancements and cyber security governance framework at large. Ultimately, Pakistan needs effective implementation of cyber security policy and robust measures for institutional synergy to attain imperatives for economic development, advancement in the IT field and capacity building in the cyber domain. Pakistan needs this strategic bearing to be taken without delay. It is high time to establish a comprehensive mechanism and effective implementation as envisioned in Cyber Security Policy 2021 to safeguard the cyber frontiers and national security of Pakistan.

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