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# CYBERWARFARE IN SOUTH ASIA: THE IMPACT OF INDO-CHINESE RIVALRY ON PAKISTAN'S SECURITY

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## ABSTRACT

*The escalating cyberwarfare between China and India plays a significant role in South Asian geopolitics, reflecting a Realist view of international relations that focuses on power struggles, national security, and competition in a leaderless world. This study explores how both nations' cyber strategies are part of a larger race for regional dominance, driven by their quest for technological superiority. It also looks at the impact of this rivalry on Pakistan, a country already facing its own challenges while being drawn into this conflict. Examples like cyber spying and attacks on critical infrastructure show the serious risks involved in this ongoing struggle. As technologies like blockchain, quantum cryptography, and artificial intelligence continue to evolve, Pakistan finds itself at a crossroads, facing both exciting opportunities and serious challenges. This study highlights the importance of building stronger cyber defenses by fostering strategic partnerships, investing in local technological innovation, and playing an active role in shaping global cyber policies. It provides practical insights to help scholars, policymakers, and strategists better understand how cyberwarfare is influencing traditional power struggles. The focus is on how this affects Pakistan's critical infrastructure, national sovereignty, and its position in the region, offering a Realist perspective on these pressing issues.*

***Keywords:*** *Cyberwarfare, Technological Superiority, National Security, Strategic Partnerships, Regional Dominance*

## Introduction

The digital age has changed how countries compete, making cyberspace an important battlefield for power struggles. The cyber rivalry between India and China is a modern version of traditional conflicts, driven by their advanced technology and competing goals in the region. Both nations are using strategies like spreading false information, sabotage, and cyber spying to gain an edge. For Pakistan, caught in the middle of this conflict, the situation is risky. Its independence and role in the region are under growing threat in this unstable and unpredictable cyber world. India's Digital India program is focused on making the country a global cyber leader, with strong backing from collaborations with major international tech companies. This drive reflects a Realist approach, where nations rely on their own efforts and use technology to strengthen their power. On the other hand, China's cyber strategy, including the Belt and Road Initiative (BRI) and the Cyber Silk Road, shows its long-term ambition to secure strategic advantages and establish dominance in both the region and the world. The intensity of this rivalry was evident in 2020, when a suspected Chinese cyberattack targeted India's power grid, exposing critical vulnerabilities and highlighting how digital tools can be used as weapons to further geopolitical aims.

Pakistan's partnership with China, especially through the China-Pakistan Economic Corridor (CPEC), reflects its efforts to align with a strong ally to counter India's growing influence in the region. However, Pakistan faces serious challenges due to its weak cyber defenses and limited technological resources. To ensure its security and avoid being caught in the middle of the cyber conflict between China and India, Pakistan must address these gaps. Protecting critical infrastructure while maintaining its independence requires a well-thought-out and proactive strategy. New technologies like blockchain, quantum cryptography, and artificial intelligence are changing the cyber world, giving countries new ways to gain power and influence. These advancements have made the cyber rivalry between India and China more complicated but also give Pakistan a chance to strengthen its position. To keep up, Pakistan needs to focus on building its own technology, forming partnerships to deal with outside threats, and working with other countries to protect its interests and secure its future in the digital age.

Pakistan must urgently prioritize strengthening its cybersecurity, as critical sectors like energy, finance, and defense are increasingly under threat from cyberattacks. As the distinction between traditional and digital warfare fades, it is essential for Pakistan to rethink its strategies to stay resilient and maintain its importance in the region's power dynamics. By looking at India and China's cyber strategies through a Realist lens, Pakistan can gain valuable insights into how to tackle its vulnerabilities. Building stronger alliances and leveraging strategic partnerships will play a vital role in helping Pakistan secure its position and navigate the fast-changing world of cyber geopolitics. In international relations, the idea of relative gains means one country's progress is judged by how much it outpaces another. This concept is central to how India and China approach their cyber rivalry. For them, it's not just about improving their own cyber abilities but also about stopping their rival from getting ahead. Cyberattacks, data breaches, and propaganda efforts show how this competitive mindset drives their actions. For Pakistan, this rivalry brings both challenges and opportunities. Its location makes it an important partner for countries wanting to balance the growing cyber power of India or China. However, Pakistan's weak cyber defenses leave it open to attacks. To handle this situation, Pakistan needs to strengthen its cyber capabilities and use its strategic position wisely, making the most of opportunities while staying out of direct cyber conflicts. Realist theory highlights the importance of building partnerships and alliances to stand up to stronger rivals. For Pakistan, its close ties with China, especially through projects like CPEC, provide a way to counter India's growing cyber power. However, depending too much on Chinese technology and infrastructure could limit Pakistan's independence and make it vulnerable to outside control. The major research question of this paper is; Within the evolving South Asian security landscape, how can Pakistan effectively mitigate the multifaceted cyber threats emanating from the escalating cyber competition between China and India, thereby safeguarding its national security, economic stability, and strategic autonomy?

To address these challenges, Pakistan needs to expand its partnerships with other countries facing similar security issues and actively participate in global efforts to improve cybersecurity. At the same time, it's important for Pakistan to develop its own technology to reduce its reliance on others. This approach can strengthen Pakistan's position in the region and safeguard its independence. By finding the right balance between partnerships and self-reliance, Pakistan can better manage the challenges of today's fast-changing cyber landscape. Pakistan's ability to navigate the rapidly evolving cyber landscape depends on a clear understanding of Realist principles that shape international relations. By addressing its weaknesses and actively pursuing opportunities for collaboration, Pakistan can better protect its critical infrastructure and play a stronger role in shaping global cyber policies and standards. Taking these proactive steps will not only enhance its security but also elevate its influence in the international cyber arena among the China and India cyber warfare around the globe.

## Problem Statement

Cyberwarfare has become a defining feature of modern international conflicts, reshaping how nations interact and compete for power in today's chaotic global landscape. The ongoing cyber competition between India and China in South Asia is a clear example of the Realist principles of survival and the quest for dominance. Both countries are using cyberspace as a strategic tool to assert their power, protect their national interests, and shape the region's security dynamics. This rivalry, fueled by state-sponsored cyberattacks, espionage, and information warfare, reflects the Realist view of power struggles and the deep-seated mistrust that often exists between competing nations. Pakistan is caught in the middle of the growing rivalry between India and China, facing serious security challenges. It risks cyberattacks on important sectors like defense, energy, and finance, and there's also the danger of becoming a battleground for their conflict. To counter India's growing power, Pakistan has partnered with China through projects like the China-Pakistan Economic Corridor (CPEC). While this partnership provides support, it also comes with risks. Relying too much on China, especially on its technology, makes Pakistan more vulnerable to cyberattacks and could reduce its independence in making decisions. Pakistan's weak cyber defense system adds to its challenges, leaving it unprepared to deal with the fast-evolving nature of cyber threats. New technologies like artificial intelligence, blockchain, and quantum computing are making these threats even more complex, widening the gap between Pakistan's vulnerabilities and its ability to defend itself. Realist thinkers argue that this lack of preparedness not only weakens Pakistan's independence but also lowers its position in the region, making it an easy target for more powerful nations in the ongoing race for cyber dominance. This study examines how the cyber conflict between India and China impacts Pakistan's security, independence, and role in the region. It highlights the urgent need for Pakistan to boost its cyber defenses by working with global partners, building strong alliances, and developing its own technology. To protect critical infrastructure, strengthen its regional position, and adapt to the shifting dynamics of cyber power, Pakistan must address its weaknesses and close the gaps in its cyber capabilities.

## Hypothesis

The growing cyberwar between China and India is reshaping regional security and threatening Pakistan's stability and sovereignty. This analysis, based on Realist principles, argues that the intense competition between India and China has worsened Pakistan's cyber vulnerabilities, making it both a target and a potential pawn in their rivalry. To address these challenges, Pakistan needs to act quickly by improving its cybersecurity through better laws, investing in its own technology, and building a wider network of regional and global partnerships. If Pakistan fails to adapt to these changes, it risks losing its independence, becoming overly reliant on others, and weakening its role in the region's balance of power.

## Literature Review

### Cyber Warfare in International Relations

Nye (2010) explains that cyberspace is now considered the fifth domain of warfare, alongside land, sea, air, and space. The rise of cyberwarfare has completely changed how countries make decisions about strategy and security. Nations now rely on cyber tools to show power, protect their interests, and maintain control. For example, the cyber conflicts between Israel and Iran (Lindsay, 2013) and between the U.S. and Russia (Harknett & Nye, 2017) show how cyber tactics are being used in larger political and military conflicts. These examples clearly show that cyberspace has become an important battleground where countries fight for power and influence in today's world. Gupta and Malhotra (2023) point out the increasing reliance on AI-powered systems for detecting cyber threats and emphasize the importance of cyber deterrence in maintaining stability during regional conflicts. Gill (2023) explains how the balance of power in Asia is shifting as countries like China and India use advanced technology to achieve their strategic goals. Greathouse (2018) provides a detailed analysis of cyberwarfare as a tool for coercion, showing how it fits into modern Realist theories. Clarke and Knake (2010) discuss the growing militarization of cyberspace, explaining how the use of offensive cyber tools is becoming an extension of traditional military power. Schmitt and Vihul (2017) explore how international law applies to cyber operations, focusing on the challenges of identifying who is responsible for attacks and how to respond in this rapidly evolving area.

### India's Cyber Strategy

India's cyber strategy focuses on building offensive cyber capabilities, stopping threats, and protecting critical infrastructure. To strengthen its cybersecurity, India is investing in advanced technologies like artificial intelligence (AI), quantum computing, and machine learning (KPMG, 2021; Carnegie India, 2022). After the 2020 Chinese cyberattack on its power grid, India made significant changes to its National Cyber Security Policy, as noted by Joshi (2021). India has also strengthened its partnerships with the Quad nations to boost its cybersecurity efforts (Pant, 2022). Patel et al. (2023) highlight the important role of the private sector in driving cybersecurity innovation, especially in creating advanced threat detection systems and blockchain solutions. Suri and Singh (2022) discuss India's collaboration with Israel for advanced cyber training, stressing the importance of global partnerships in improving cyber defenses. Bhattacharya (2021) reviews India's cybersecurity frameworks and suggests using AI algorithms to predict and prevent cyber threats more effectively.

**China's Cyber Dominance**

China's cyber policy reflects its focus on technological dominance and asymmetric warfare. The integration of cyber, space, and electronic warfare into the PLA's Strategic Support Force shows its comprehensive approach to achieving digital superiority (Zhou and Wang, 2023). An example of China's efforts to influence global cybersecurity standards is the "Cyber Silk Road" initiative, which aims to export its cybersecurity practices and shape international cyber norms and governance (Cai, 2023). This highlights China's ambition to lead in the digital world.

Li et al. (2023) highlight how advances in quantum cryptography and AI-powered tools are strengthening China's cyber operations and infrastructure defense. Wu (2020) explores how blockchain is being used strategically to improve cybersecurity, especially in protecting critical infrastructure. Greer and Tao (2021) emphasize the importance of China's digital surveillance networks, which rely on big data analytics to monitor and address perceived threats both domestically and internationally. These technologies showcase China's focus on enhancing its cybersecurity and control around the world.

**Implications for Pakistan**

Pakistan's weak cyber infrastructure leaves it exposed to the growing cyber rivalry between China and India. Key sectors like energy, finance, and defense have significant vulnerabilities, as noted by Khan (2021) and Ahmed (2023), highlighting the urgent need for better cybersecurity of the world in different domains. Bhatti and Rizvi (2023) recommend adopting digital forensics and real-time threat monitoring to strengthen Pakistan's defenses. Improving cybersecurity is essential to protect critical systems and reduce risks in an increasingly competitive and challenging cyber landscape around the globe of the world. Mustafa (2023) says Pakistan can benefit from Chinese technology and expertise through CPEC collaborations. However, Rehman (2021) warns that relying too much on China could reduce Pakistan's independence. Malik et al. (2023) suggest that Pakistan should also partner with other countries, like Malaysia and Turkey, to maintain a better balance. Building partnerships with more countries would help Pakistan rely less on China, strengthen its cybersecurity, and manage its data better in the long global competition with major powers like China. Zaidi (2022) suggests closing skill gaps by creating public-private partnerships and involving local tech companies in cybersecurity innovation. Shafiq (2023) highlights the importance of regional cybersecurity forums in building partnerships to address common risks. Niaz and Haider (2022) emphasize the need to invest in local research and development (R&D) to strengthen Pakistan's independence in cyberspace and reduce its reliance on foreign solutions. Together, these steps can help Pakistan improve its cybersecurity and build a stronger, more self-reliant system around the globe.

## Critical Analysis

### Espionage and Sabotage

The core of the India-China cyber competition is cyber espionage and sabotage, which reflects the calculated use of digital tools to weaken opposing capabilities and obtain an advantage. High-profile cyberattacks that have been purportedly connected to Chinese organizations have targeted India, impacting its defense infrastructure, healthcare systems, and electrical grid (Joshi, 2021). These examples demonstrate the use of cyber operations as tools for intelligence collection and power projection. India's cyber capabilities, including offensive measures to repel Chinese invasions, have been greatly increased in response. Beyond the local participants, the wider regional security environment is being destabilized by this intensifying digital weapons competition.

These competitive dynamic increases Pakistan's vulnerability to direct and indirect threats. Cybersecurity flaws that rivals like India could take advantage of are created by shared digital infrastructure with China, especially under the China-Pakistan Economic Corridor (CPEC). Furthermore, Pakistan is a prime target for espionage and sabotage due to its inadequate cybersecurity infrastructure, which calls for immediate investments in threat intelligence, network hardening, and digital forensics to protect vital industries like defense, energy, and telecommunications.

### Regional Norms

Escalation and miscalculation risks are increased when there are no unified regional rules or frameworks controlling cyber involvement. According to Schmidt and Vihul (2017), China and India both consistently disregard multilateral frameworks such as the Budapest Convention on Cybercrime, instead choosing to implement unilateral measures that align with their geopolitical interests. Unchecked cyber operations that exacerbate regional instability are made possible by this normative vacuum.

Pakistan should use organizations like the Shanghai Cooperation Organization (SCO) to promote regional agreements on cyber conduct in order to close this gap. Though their efficacy is frequently limited by underlying geopolitical issues, these forums offer channels for discussion. Pakistan's credibility might be increased and regional stability could be promoted by bringing its policies into line with new international cyber norms and encouraging transparency in its cyber plans.

### Pakistan's Policy Gaps

Despite recognizing the difficulties presented by the changing threat landscape, Pakistan's cybersecurity regulations are neither broad enough or consistently implemented enough to provide effective mitigation efforts. Despite its potential, programs like as the National Cyber Security Policy are beset by poor resource allocation and little enforcement (Ahmed, 2023). This dependence on outside assistance, especially from China, highlights the pressing necessity for developing domestic capabilities. Bridging these policy gaps requires establishing strong public-private partnerships, boosting cybersecurity infrastructure financing, and encouraging interagency coordination.

### Military Applications

China and India's militarization of cyberspace has added a new level of complexity to regional security considerations. With an emphasis on safeguarding vital military infrastructure and upsetting hostile networks, India's defense strategy increasingly incorporates cyber capabilities for both offensive and defensive activities (Bhattacharya, 2021). China's strategy, which has its roots in asymmetric warfare, focusses on taking advantage of weaknesses in vital infrastructure and disrupting opposing command-and-control systems (Zhou & Wang, 2023). For Pakistan, updating its military strategy to include cyber capabilities is essential to preserving strategic parity. Incorporating cyber defense into larger military plans, training specialized cyber forces, and funding research and development are all examples of this. Adapting solutions to Pakistan's particular security situation while learning from both allies and enemies would be essential.

### Technological Adaptation

Pakistan's cybersecurity posture could undergo a radical change thanks to emerging technologies including blockchain-based data protection, AI-driven threat detection, and quantum cryptography. The technological and financial obstacles related to these technologies are still substantial, nevertheless. To solve these problems, concerted domestic capacity-building initiatives and cooperative efforts with technologically sophisticated nations are crucial. By creating research and innovation centers centered on cybersecurity technology, it is possible to lessen dependency on outside parties and promote information sharing.

### Economic Impact

Cyberwarfare has far-reaching economic effects that go well beyond the immediate damage of infrastructure. Cyberattacks that persist have the potential to undermine investor trust, disrupt commerce, and cause instability in important economic sectors. Protecting vital financial institutions, export-driven sectors, and the CPEC infrastructure are all key priorities for Pakistan. The long-term economic effects of cyber risks can be lessened by taking proactive steps including sector-specific cybersecurity frameworks, real-time threat monitoring, and economic risk assessments.

### Strategic Alliances

Pakistan can enhance its cybersecurity capabilities while managing the intricacies of regional rivalries through strategic partnerships and multilateral initiatives. An excessive dependence on one ally runs the risk of developing strategic dependencies that could jeopardize national autonomy, even as its engagement with China within the CPEC framework provides vital technological support (Rehman). In addition to participating in international forums like the United Nations Group of Governmental Experts (UNGGE), Pakistan can find sustainable and well-rounded answers to its cybersecurity problems by broadening its alliances with nations like Turkey, Malaysia, and members of the Gulf Cooperation Council (GCC). By taking such steps, Pakistan may reduce the dangers associated with the cyberwarfare between China and India, strengthen its cybersecurity framework, and establish itself as a proactive regional player in the rapidly changing cyberspace.

### Findings

- Cyberattacks continue to pose a serious threat to Pakistan's vital infrastructure, which includes the energy, financial, and defense sectors. Lack of investment in cybersecurity, antiquated technology, and poor threat detection systems all contribute to these weaknesses. Improving these vulnerabilities with strong digital defenses and proactive legislative actions is a top goal.
- Pakistan is at serious risk of turning into a proxy war ground due to the growing cyberwarfare between China and India. Pakistan, a geographically significant state in South Asia and a strategic ally of China, is particularly vulnerable to cyber espionage, sabotage, and retaliatory assaults. To reduce these threats, strategic partnerships and cyber neutrality must be balanced.
- Under the CPEC framework, Pakistan can improve its cyber capabilities through collaborations with China. To close

cybersecurity gaps, these partnerships can secure funding, offer vital training, and ease the transfer of cutting-edge technologies. To prevent strategic dependencies, one must control one's reliance on a single ally.

- The National Cyber Security Policy and Pakistan's current cybersecurity framework are devoid of operational coherence, enforcement mechanisms, and regular changes to take into account the ever-changing nature of cyberthreats. It is crucial to have a thorough and flexible policy supported by sufficient financial resources and institutional backing.
- Blockchain-based data management, AI-driven threat detection, and quantum cryptography are revolutionary approaches to Pakistan's cybersecurity problems. Even though these technologies have a lot of promise, their adoption will need focused funding, R&D, and partnerships with technologically advanced countries.
- Pakistan's economic stability is threatened by ongoing cyberthreats that erode investor confidence, impede trade, and jeopardize vital infrastructure, such as CPEC projects. It is essential to protect these assets with thorough cybersecurity measures in order to maintain growth and draw in foreign investment.
- By taking part in regional and international forums like the UN Group of Governmental Experts (UNGGE) and the Shanghai Cooperation Organization (SCO), Pakistan can establish cooperative defense mechanisms, promote regional cyber norms, and obtain access to international cybersecurity best practices.
- Achieving strategic parity with China and India requires Pakistan to update its military doctrine to include cyberwarfare capabilities. According to lessons learnt from their cyber plans, including cyber offence and defense into military planning can provide a significant competitive advantage.
- Improving real-time threat detection systems and interagency collaboration are essential for raising Pakistan's operational readiness. By establishing smooth cooperation between military and civilian agencies, the country will be better equipped to handle cyber emergencies.
- The first step in creating a robust cyber ecosystem is increasing national awareness of cybersecurity concerns and encouraging digital literacy. Campaigns and educational initiatives at the

national level can enable people, organizations, and enterprises to embrace safe practices and support national defense.

## Conclusion

The escalating cyberwarfare between India and China presents a significant challenge to Pakistan, directly impacting its regional influence, national security, and sovereignty. This competition, characterized by a zero-sum dynamic, underscores how the gains of one state inevitably translate into vulnerabilities for others. A realist perspective highlights this, emphasizing that the advantages accrued by China or India in cyberspace invariably diminish Pakistan's relative power and security. To navigate this complex landscape, Pakistan must strategically recalibrate its cyber posture. A robust response demands a multi-faceted approach that encompasses technological advancements, policy reforms, and strengthened international cooperation. Firstly, significant investments in cutting-edge cybersecurity technologies are imperative. This entails developing sophisticated threat detection and response systems capable of identifying and mitigating advanced cyber threats. Prioritizing the protection of critical national infrastructure, such as power grids, telecommunication networks, and financial institutions, is paramount. Furthermore, robust cybersecurity research and development initiatives are crucial to stay abreast of evolving threats and develop innovative solutions.

Secondly, a comprehensive legal and regulatory framework is essential to govern cyberspace effectively. This framework should encompass robust data protection laws that safeguard sensitive information from unauthorized access and exploitation. Clear guidelines for critical infrastructure security must be established and enforced to ensure the resilience of essential systems. Moreover, a legal framework for cyber operations is crucial, defining acceptable and unacceptable behavior in cyberspace and establishing clear lines of accountability for malicious cyber activities.

Thirdly, strengthening international partnerships is vital to address the transnational nature of cyber threats. Engaging with regional and global organizations, such as the United Nations, ASEAN, and other relevant forums, can facilitate information sharing, joint cyber exercises, and the development of common norms of behavior in cyberspace. These collaborative efforts can enhance collective defense capabilities and promote a more stable and secure cyberspace for all.

Domestically, fostering a robust cybersecurity ecosystem requires a multi-pronged approach. Investing in cybersecurity education and training programs at all levels is crucial to develop a skilled workforce capable of addressing the challenges of the digital age. Public awareness campaigns can play a vital role in educating the public about cyber threats and best practices for online safety. Furthermore, encouraging private sector participation in cybersecurity initiatives, through public-private partnerships and incentives, can leverage the expertise and resources of the private sector to enhance national cybersecurity capabilities. The dynamic nature of the cyber threat landscape demands a proactive and adaptive approach. Continuous monitoring and analysis of emerging threats are essential to anticipate and respond effectively to evolving challenges. Investing in research and development to stay ahead of the curve in cybersecurity technologies is crucial. Moreover, fostering a culture of innovation and experimentation within the cybersecurity domain is vital to develop novel solutions and adapt to the ever-changing threat landscape.

By proactively addressing these challenges, Pakistan can enhance its ability to anticipate, adapt, and respond effectively to cyber threats. This will not only safeguard its critical infrastructure and sovereignty but also enhance its strategic stability in the face of escalating geopolitical and technological challenges. A robust and resilient cybersecurity posture will be crucial for Pakistan to navigate the complexities of the 21st century and maintain its regional influence and national security in an increasingly interconnected and digitized world. This expanded response provides a more in-depth analysis of the challenges and opportunities facing Pakistan in the face of escalating cyber competition between China and India. It delves deeper into the specific measures that Pakistan can undertake to enhance its cybersecurity capabilities, including technological advancements, policy reforms, international cooperation, and domestic capacity building. By addressing these challenges proactively, Pakistan can safeguard its national interests and ensure its long-term security and prosperity in the digital age.

**Recommendations**

- To solve serious weaknesses and conform to international cybersecurity standards, allocate funds for the development and adoption of cutting-edge technologies such as blockchain-based data security systems, AI-driven threat detection, and quantum cryptography.
- Create cybersecurity training facilities and courses with an emphasis on advanced threat analysis, incident response, and safe digital infrastructure design for professionals in the military and the civilian sector.

- Incorporate enforceable regulations, establish regular review processes, and encourage cooperation between the public and commercial sectors to strengthen the National Cyber Security Policy's implementation.
- Engage in regional and global cyber forums, such the United Nations Group of Governmental Experts (UNGGE) and the Shanghai Cooperation Organization (SCO), to promote common standards, foster trust, and cooperatively resolve disputes.
- To promote innovation in cybersecurity and provide domestic solutions suited to Pakistan's particular problems, support collaborations between governmental organizations, the commercial sector, and academic institutions.
- Use real-time threat detection, sophisticated monitoring systems, and secure-by-design strategies to protect important economic assets, such as financial networks, electricity grids, and CPEC infrastructure.
- In balance Using engagement methods with other international and regional partners, including Turkey, Malaysia, and Gulf Cooperation Council (GCC) governments, Pakistan is able to diversify its technical and strategic support while reducing its dependency on China.
- Launch nationwide awareness campaigns to promote a culture of digital resilience by educating the public, institutions, and companies on cybersecurity threats and recommended practices.
- In order to promote a collective security environment among South Asian countries, regional mechanisms for intelligence sharing, resource pooling, and coordinated responses to cyber threats should be developed.
- To effectively manage large-scale attacks, form a national-level cyber incident response team with professionals from the military, corporate sector, and civilian sectors. Rapid containment, recovery, and post-incident analysis should be the team's main priorities. Ahmed, S. (2023). *Cybersecurity Challenges in Pakistan*. Journal of South Asian Studies, 34(2), 45–58.

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