

AN ANNUAL REVIEW OF THE PROGRESS OF
DIGITALIZATION OF PAKISTANI SOCIETY, DEMOCRACY,
MEDIA, GOVERNANCE AND ECONOMY

PAKISTAN DIGITAL TRANSFORMATION REPORT – 2024



Adnan Rehmat

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For a digitally interactive map of Pakistani journalists killed in 25 years, visit www.fnpk.org

Table of Contents

EXECUTIVE SUMMARY	7
Digital Transformation of Pakistan – The Year 2024 in Review	8
CHAPTER 1: SPECIAL REPORT: The State of Digital Democracy in Pakistan – the Impact of Technology on the 2024 General Elections	14
Technology, Policy and Democracy in a Flux: From Inequality to Inclusion	15
The Big Picture: Contextualizing Pakistani democracy in a digitalized and connected world..	16
Pakistani Politics Online: the digital footprint	17
The 2024 Elections: Key digital standouts	17
Digital Leadership: Key Pakistani political parties and their leaders online in 2024.....	18
Digital Democracy > Digital Disruption > Digital Distraction	19
Alt Digital Politics – Electoral online social defiance	20
Enter AI: Use of artificial intelligence in 2024 elections	20
The Good and the Bad: Key takeaways from Pakistan’s digital politics and democracy in 2024	21
CHAPTER 2: Section A: POLICIES – Regulations Governing Digitalization	22
A1. Digital Policies and Regulations	23
National digitalization policy	24
Regulating open digital spaces	24
Cybersecurity	25
Surveillance and privacy	26
CHAPTER 3: Section B: PROCESSES – State of Digital Reforms and Progress	30
B1. Digital Governance Systems	31
Digital financial systems (including digital payments).....	31
Digital government services and facilities	32
B2. Digital Freedom of Expression and Access to Information	35
X under lockdown	35
“Digital terrorism”	36
Misinformation surge	37
Trolling the bench	37
Content takedown	38
B3. Digital Politics and Democracy	39
Elections and electoral politics	39
Political parties and electoral expression	40
B4. Digital Business and IT Economy	42

IT potential and exports.....	42
IT infrastructure and development	43
Digital payments and banking	43
Freelance economy.....	44
Impact of degraded internet and telecom on businesses and digital economy	45
B5. Digital Crime and Justice.....	47
Cyber crime and prosecution	47
Cyber justice and technology	48
CHAPTER 4: Section C: PRACTICES: Developments in the Digital Sector	49
C1. Internet	50
Internet access.....	50
Internet quality and efficiency	52
C2. Telecom	53
Telecom policies and regulations	53
Telecom bright spots.....	53
Phone production in Pakistan.....	55
Telecom industry issues	56
Blocking of SIMS	57
C3. Artificial Intelligence (AI)	59
AI priorities.....	59
AI promises and pitfalls.....	59
AI partnerships.....	59
C4. Tech Entrepreneurism and Start-ups	60
Falling funding.....	60
Challenges for start-ups	60
Women and tech	61
Gaming industry.....	61
C5. Space Tech	61
Pakistan in lunar orbit.....	61
Pakistan to land rover on the Moon.....	61
Digital connectivity satellite launch.....	62



EXECUTIVE SUMMARY

A general overview of the progress and backsliding in policies, processes and practices relating to greater digitalization of Pakistani state, government, society and economy.

Pakistan is one of the world's ten 10 digitalized society in terms of numbers of people with internet access and social media users. The country has a stated policy of aiding and fast-tracking **digitalization of democracy, governance, economy and social development**. The country's journey toward deep and irreversible **digital transformation** has been gaining momentum in recent years. Some of the key achievements related to digital transformation have been **economic growth and innovation**. The information technology and IT-enabled services sector have shown tremendous potential to drive economic growth, foster innovation and improve the quality of life through digital transformation. Local entrepreneurs, start-ups and tech companies have made strides.

But key challenges, like still-limited infrastructure and inadequate investments, are preventing optimizing the potential and promise of digital transformation. This includes a dichotomous approach to viewing access to internet as a key priority for the national digitalization drive including digital economy and yet also seeing it as a dangerous power in the hands of people when it comes to freedom of expression and democratic engagement online. Limited **internet connectivity**, especially in rural areas where most of Pakistan's population resides, remains a critical barrier. Reducing **telecom taxes** and increasing **spectrum availability** could make internet access more affordable and accessible to a larger population.

Increasingly regressive application of outdated **digital regulations** is hindering inclusive democratization, social innovation and economic growth. This needs to change. Modernizing **data protection** laws, strengthening freedom of expression provisions and reforming digital transactions regulations can strengthen democracy, attract foreign investment, spur local innovation and make social development fairer and more sustainable. By leveraging new technologies, data, and platforms, digital transformation can create **opportunities for sustainable development and social inclusion**.

The government in December 2024 revealed¹ plans for enacting a legal framework for its ambitious '**Digital Nation Pakistan**' by tabling an act in parliament. The 'Digital Nation Pakistan Act' will help establish in 2025 a national digital identity and service for citizens to improve access to services and enhanced digital governance. This will involve creating two key bodies: the **National Digital Commission**, led by the prime minister, and the **Pakistan Digital Authority**, led by industry experts. These bodies will develop a national digitization masterplan and sector-specific plans, encouraging private sector involvement. The initiative

includes creating a cashless economy, enhancing data interoperability, and improving government transparency through digital governance. It will also foster AI-based startups in key sectors and will be funded by a \$78 million World Bank project, launching in 2025.

Hitherto, no single source and comprehensive tracking and analysis of the process of digital transformation of Pakistan has been available publicly. This report changes that. Both **celebrating successes and identifying challenges**, the “**Pakistan Digital Transformation Report**” will be produced annually, tracking and analysing developments associated with the digital transformation process and providing insights on trends of tech-driven socio-economic developments. It will provide stakeholders including the policymakers, citizens, businesses, tech sector, media and the human rights community with **critical information that can help shape the national digital transformation agenda**. This report It also analyzes actions of stakeholders – including rights holders and duty bearers – and developments helping or hindering use of technology and AI. Hopefully this can assist with the overall process of Pakistan positioning itself as a leading digitally developed nation on the global stage.

Digital Transformation of Pakistan – The Year 2024 in Review

The following is a summary of key progress and setbacks in the domain of digital transformation of Pakistan during 2024 and the impact of each. Exhaustive details follow in the subsequent chapters.

1. Digital Policies and Regulations in Pakistan

‘Digital Nation Pakistan’ legal regime: The government plans the ‘Digital Nation Pakistan Act’ to establish a national digital identity and service for citizens to improve access to services and enhanced digital governance. This will be implemented in early 2025 by establishing the National Digital Commission, led by the prime minister, and the Pakistan Digital Authority, led by industry experts. These bodies will develop a national digitization masterplan and sector-specific plans, encouraging private sector involvement. The initiative includes creating a cashless economy, enhancing data interoperability, and improving government transparency through digital governance.

Overall impact: positive > *These measures, at the proposal stage by the end of 2024, offer a blueprint for a pragmatic digitalization system that can, in 2025, be translated into actual gains for citizens and businesses leading to greater governance transparency and citizen rights and empowerment through use of technology.*

Content regulation and privacy concerns: During 2024, the government increased control over online content and social media, affecting political activists, journalists, and citizens. A ‘Digital Rights Protection Authority’ was proposed and the National Forensics Agency Bill 2024 was tabled in parliament, with powers to block content, restrict social media,

and impose steep fines and long jail terms for social media posts deemed offensive. Controversies also arose over state surveillance, including phone call interceptions and a costly firewall for mass surveillance. Legal battles ensued over the legality of these surveillance measures. The government also announced a ban on unauthorized VPN use to control access to blocked content.

Overall impact: negative > *These measures ended up sidelining key constitutional guarantees and eroding open spaces for rights to free speech, association and privacy online resulting in the spaces for Pakistani cyber-citizenship narrowing.*

2. Digital Governance Systems

Digital financial systems: The federal and provincial governments initiated several projects to digitalize the financial regulatory system. These efforts focused on making tax payments and funds transfers more efficient and transparent.

Digital government services and facilities: New and improved digital services were offered in various sectors, including health, education, food, agriculture, and finance. Key public services became more accessible digitally, such as document attestation, certificates (birth, marriage, etc.), land ownership verification, property tax payment, e-stamps, vehicle registration, and driving licenses.

Overall impact: positive > *Making tax payments and funds transfers theoretically became more transparent and provision of key public services online held the promise of obviating the need to go to physical government offices, saving time, money and peace of mind.*

3. Digital Freedom of Expression and Access to Information

Rights under attack: The constitutional rights to freedom of expression and access to information faced severe challenges, especially online.

Restrictive online measures: The government frequently banned social media platforms, frequently shut down the internet, throttled internet speeds, installed a firewall, and suspended mobile and internet services intermittently throughout the year.

Legal actions: The Prevention of Electronic Crimes Act (PECA) was used repeatedly to prosecute journalists and political activists for their digital expressions.

Overall impact: negative > *These actions posed significant threats to the free speech and socio-political pluralisms and cultural diversity as well as public interest journalism.*

4. Digital Politics and Democracy

Elections and electoral politics: The 2024 general elections saw a significant shift towards digital campaigning and electoral administration. Political parties used social media and digital platforms extensively to connect with voters, complementing traditional rallies with virtual gatherings.

Overall impact: positive > *Digitalization of digital campaigning and electoral administration somewhat modernized the electoral process, making it more inclusive, efficient, and responsive to the needs of the electorate.*

Political parties and electoral expression: The use of digital technology and social media for campaigning led to increased polarization in political discourse. Post-election, social media was rife with misinformation, disinformation, and hate speech, especially from parties rejecting the election results. The government responded with measures like banning platforms, suspending or degrading internet services, and prosecuting political activists and journalists, raising concerns about political rights and democracy.

Overall impact: negative > *Increased political polarization eroded public trust in both the government and the electoral process, leading to increased scepticism and political apathy. The crackdown on digital expression stifled free speech and dissent, impacting democratic principles while legal battles and social unrest increased from perceived injustices and restrictions on digital freedoms.*

5. Digital Business and IT Economy

Growth and development factors: Increased global demand for IT services and supportive government policies led to significant growth in Pakistan's IT sector while investments in infrastructure, partnerships with the private sector, skill development, and streamlined digital payments boosted IT productivity and exports. There was also a substantial rise in digital transactions and banking.

Overall impact: positive > Overall, while the growth and development factors propelled Pakistan's IT sector forward.

Challenges to digital economy: While support for freelancers improved key challenges in optimizing the payments system for them persisted. Frequent internet disruptions for political reasons negatively impacted the digital economy, business efficiency, and profitability.

Overall impact: negative > These challenges posed significant obstacles. Frequent internet disruptions for political reasons severely impacted the digital economy, reducing business efficiency and profitability; increasing losses in productivity reliant on digital operations; and imposing an unstable business environment, threatening to scare away both local and foreign investments in the digital sector.

6. Digital Crime and Justice

Digital judicial reforms: The legal system, including courts and executive bodies, implemented digital reforms. Acceptance of digital evidence improved the judicial process while measures were also taken to modernize the judicial process and enhance efficiency.

Tackling cybercrime: Some efforts were made to address cybercrime including prosecuting online harassment of women and measures against child pornography, balancing legal oversight with technological progress.

Overall impact: positive > Although inadequate in themselves, these reform measures contributed to a forward movement for a more responsive legal system while slightly enhancing the safety and security of the digital environment.

7. Internet in Pakistan

Disruptions and throttling: The year saw frequent internet disruptions and enforced degradation of internet speed, worsened by the installation of a digital firewall. Many stakeholders protested, leading to multiple court cases and authorities being put on notice. These measures negatively affected access to information, freedom of expression, business operations, and civic engagement.

Overall impact: negative > *The negative impacts of internet disruptions and throttling were substantial, increasing the likelihood of reversing gains of digitalization and setting back the country's economy and society due to an inadequately resilient or equitable digital environment.*

8. Telecom Industry Issues

Telecom sector rising: The sector saw significant changes, including mergers, financial deals, and regulatory challenges. Efforts like affordable smartphones for citizens and foreign investments in local production are reshaping the industry. The tax authorities, however, implemented measures to increase tax compliance, focusing on suspending mobile phone connections but this ended up in citizens and telecom operators protesting the measure which had to be rescinded.

Overall impact: positive > *The rising telecom sector in Pakistan was poised to bring significant economic, technological and social benefits, provided that the balance between competition, consumer rights, and investment is maintained.*

9. Artificial Intelligence

Growing interest: There was increasing awareness and interest in AI among stakeholders in the year. Key players including the government, international businesses, and local academia showed renewed interest in AI's potential. Overall awareness increased about the potential of AI as a driver for innovation and a tool to address societal challenges.

Overall impact: positive > *Overall, the growing interest in AI in Pakistan created the potential to drive economic, technological, and societal advancements.*

10. Tech Entrepreneurism

Downturn: The technology entrepreneurship and venture capital landscape in Pakistan saw a decline in funding values, mainly caused by gender disparity in the start-up ecosystem, connectivity and disruption related to internet and telecom services, and brain drain, among others.

Overall impact: negative > While the downturn presents significant challenges for the tech entrepreneurship and venture capital landscape in Pakistan, it also offered opportunities for market correction, increased efficiency, and potential policy support to foster a more sustainable tech ecosystem.

11. Space Program Advancements

Lunar missions: Pakistan's first lunar mission, iCube-Qamar, successfully entered lunar orbit aboard a Chinese probe, making Pakistan the sixth country to achieve this milestone. It was also announced that in 2028, in partnership with China, Pakistan will launch a 35-kg rover to the Moon's south pole aiming to conduct scientific research and contribute to an International Lunar Research Station.

Communication satellite: During the year Pakistan launched the PAKSAT MM1, a multi-mission communication satellite to enhance digital connectivity.

Overall impact: positive > The space and satellite missions positioned Pakistan as a growing player in space exploration and digital connectivity with potential to bringing scientific, technological, economic and educational benefits. Collaboration with China will expand Pakistan's space exploration capabilities.

SPECIAL REPORT:

The State of Digital Democracy in Pakistan – the Impact of Technology on the 2024 General Elections



Technology, Policy and Democracy in a Flux: From Inequality to Inclusion

The year 2024 was called ‘the super year of elections’ – general elections were held in over 70 countries with over half of the world’s population registered as voters. This also included Pakistan. In the backdrop of a rapidly digitalizing society in Pakistan, in the February 2024 general elections, technology played a pivotal role in shaping both the electoral outcomes and the quality of democracy.

Some key characteristics of Pakistan’s ‘digital elections’ in 2024 to consider:

Digital campaigning: Political parties leveraged social media, AI-driven algorithms, and targeted digital advertising to reach voters. Some parties were much better than others and reaped electoral dividends and their ability to micro-target specific demographics allowed campaigns to tailor messages effectively.

Disinformation challenges: Technology also amplified disinformation in the February 2024 elections. Fake videos, AI avatars, misleading memes, and fake news circulated widely, affecting voter perceptions. While some elections-focused fact-checking mechanisms were launched, they did not counter the problem adequately.

Voter engagement: There were upsides too in the February 2024 elections. Technology facilitated voter registration and amplified information dissemination; Mobile apps and online platforms encouraged citizen participation, enhancing the democratic process. And despite an unprecedented internet shutdown and scaling down on mobile phone services on election day aimed at discouraging turnout by one key party, the election recorded one of the highest voter turnouts in Pakistan’s election history and record votes polled by the key party targeted for discouragement.

Election monitoring and analysis: AI-powered tools monitored election integrity and controversies, detecting alleged irregularities and fraud. Transparency and accountability were bolstered as big data analytics helped dissect voting patterns, identifying trends and correlations. Some parties were able to use this to their tremendous advantage.

1. THE BIG PICTURE: Contextualizing Pakistani Democracy in a digitalized and connected world

Countries (Multi-party democracies)	World's 10 most populous societies	Registered voters in 2024	Internet users in 2024	Social Media Users in 2024
India	1.428 billion World #1 Asia #1 South Asia #1	912m in 2019 969m in 2024 World #1	881 million (62% pop.) World #2 Asia #2 South Asia #1	467 million World #2 Asia #2 South Asia #1
China	1.425 billion World #2 – Asia #2	-	1.1 billion (77% pop.) World #1 Asia #1	1 billion World #1 Asia #1
United States	339 million World #3	154.6m in 2019 161.4m in 2024 World #4	311 million (92% pop.) World #3	246 million World #3
Indonesia	277 million World #4 Asia #3	187m in 2019 204.8m in 2024 World #2	216 million (79% pop.) World #4	167 million World #4 Asia #3
PAKISTAN	241 million World #5 Asia #4 South Asia #2	106m in 2018 128.5m in 2024 World #5 Asia #3 South Asia #2	135 million (45% pop.) World #6 Asia #4 South Asia #2	72 million World #10 Asia #6 South Asia #2
Nigeria	223 million World #6 Africa #1	94m 2023 World #9	103 million (67% pop.) World #9 Africa #1	33 million
Brazil	216 million World #7 South America #1	167m in 2023 World #3 South America #1	165 million (77% pop.) World #5 South America #1	152 million World #5
Bangladesh	173 million World #8 Asia #5 South Asia #3	119.6m in 2019 121.7m in 2024 World #6 Asia #4 South Asia #3	116 million (73% pop.) World #9 Asia #5 South Asia #3	53 million World #11 Asia #9 South Asia #3
Russia	144 million World #9	114m in 2024 World #7	129 million (89% pop.) World #7	106 million World #6
Mexico	129 million World #10	96m in 2024 World #8	101 million World #10	94 million World #7

One of the world’s largest digital society – the Pakistan context

- **Size:** The 5th most populous country in the world, 4th in Asia and 2nd in South Asia
- **Constitutional democracy:** The 5th largest in the world in terms of numbers of voters, 3rd in Asia and 2nd in South Asia
- **Digitally connected:** The 6th largest in the world in terms of numbers of internet users, 4th in Asia and 2nd in South Asia
- **Digitally social:** The 10th largest in the world in terms of numbers of social media account holders, 6th in Asia and 2nd in South Asia

2. PAKISTANI POLITICS ONLINE: the digital footprint

Background: National elections to elect federal and provincial governments were held in Pakistan in February 2024.

- In the 20th century, no government or parliament completed its 5-year term in Pakistan.
- Now in the 21st century, four elections have been held after each government and parliament completed their terms.
- The last two elections – 2018 and 2024 – have been in an intensely digitalized environment:

Indicators	2018	2024	Increase
Voters	106m (53% of population)	128.5m (58% of population)	22.5m (>21%) > From #9 to #5 in world
Internet users	62m (22% of population)	170m (76% of population)	108m (>174%) > From #68 to #6 in world
Social media users	35m (17.5% of population)	72m (30% of population)	37m (>105%) Currently #10 in world

3. The 2024 ELECTIONS: Key digital standouts

Digital electoral mobilization: The election watchdog (Election Commission of Pakistan, ECP), national ID authority (National Database and Registration Authority, NADRA), political parties, democracy watchdogs and CSOs, and local authorities, established special online presence – websites, social media pages and regional/local digital support helplines, to assist with voter registration and mobilization processes that ensured a representative turnout.

Digital campaigning: Political parties leveraged social media, AI-driven algorithms, and targeted advertising to reach voters. Some parties (Pakistan Tehrik Insaf and Pakistan Muslim League-N) were much better than this than others (Pakistan People’s Party, Awami National Party and Muttahida Qaumi Movement and Jamiat Ulema Islam-F) and reaped electoral dividends and their ability to micro-target specific demographics allowed campaigns to tailor messages effectively.

4. DIGITAL LEADERSHIP: Key Pakistani political parties and their leaders online in 2024

Political Party / leaders	X (Twitter) followers	Facebook followers	TikTok followers	Instagram followers	SoMe followers	Votes in 2024 polls
PTI of Imran Khan	10.1m	8.7m	6.4m	2.8m	28m	18.4m
PML(N) of Sharifs	2.5m	3.6m	1.3m	0.3m	7.7m	13.9m
PPP of Bhuttos	1.1m	1.1m	0.1m	0.1m	2.4m	8.2m
TOTAL	13.7m	13.4m	7.8m	3.2m	38.1m	40.5m
Imran Khan	20.8m	15m	9.4m	10m	55.2m	-
Shahbaz Sharif	6.7m	2.7m	0.9m	0.15m	10.4m	-
Bilawal Bhutto	5.1m	1m	0.07m	0.28m	6.4m	-
Total	32.6m	18.7m	10.4m	10.4m	72m	-

Key electoral data

- Total registered voters in Pakistan in 2024: 128.5m
- Total votes polled: 60.6m (turnout 47%)
- Total votes polled by top 3 parties: 40.1m (67% of total votes polled)
- Total followers of 4 SoMe accounts of top 3 parties: 38.1m
- Voters under 35 years who voted in 2024 elections: 44%

General trends – voters and social media accounts

- Nearly as many votes were polled for top 3 parties as were the numbers of their total social media followers.
- General trend: The larger the digital footprint of political parties, the greater their share in votes.
- The most popular politician had twice more the numbers of social media followers than the leaders of the other two parties of the top 3 largest parties put together.
- Leaders of the top three parties with most votes have almost twice as many social media followers than votes.

Key ‘digital trends’ of the 2024 Pakistan elections

- Politics and political communication and engagement in Pakistan is comprehensively digital
- Elections in Pakistan are as digital a business and tech dependent as they have ever been

5. DIGITAL DEMOCRACY > DIGITAL DISRUPTION > DIGITAL DISTRACTION

Practiced distortion: Pakistan is a constitutional and federal democracy but four bouts of martial law and institutional undermining of political mandates and parliamentary manipulation have ensured optimal political participation is substantially undermined. Freedom of expression and right to information are constitutional guarantees but Pakistan scores poorly on global indexes on both counts. This impacts coverage of elections. Over 150 journalists have been killed in Pakistan for their work since 2000 while the government remains a key media owner with power to censor opposition. In the run-up to the 2024 elections both offline and online intimidation of political activists and journalists remained high.

Heavily censored digital democracy: The cybercrime law of 2016 criminalized dissent through which hundreds have been procedurally hounded since, mostly political activists and journalists. Dozens of journalists seen as supporters of PTI were legally intimidated by the caretaker government. For the past five years (2020-24) the state of Pakistan has been among the world's top five requesters of content takedowns for X/Twitter, Facebook and TikTok.

Disrupting democracy digitally: Both Imran Khan and Shahbaz and their parties became aggressively digitally active and savvy in the run-up to, during and after the 2024 elections. Their three governments in a row (Sharif-Khan-Sharif > 2013-24) expanded crackdown on opponents to limit their online and digital politics by enacting laws (cybercrime and defamation laws by Sharif) and attempting to centralize online dissent (the proposed 'Pakistan Media Development Authority' dubbed as an attempt to create a 'headquarter of censorship' and digital censorship of opponents by Khan).

The security establishment has also been active in its attempts to adversely impact politics in the digital age (first against Sharif/PML-N and now against Khan/PTI) by forcing largescale institutional measures that seek to equate dissent (criticism of its role in politics) with "digital terrorism" and attempting to destabilize national digital progress through the following:

- A shutdown of X/twitter in February 2024 that continued for the entirety of the year. Similar shutdown of Facebook is now being threatened.
- Establishing special tribunals under cybercrime law to speedily prosecute 'digital terrorism'.
- Establishment of a special body to identify and legally confront vocal opposition supporters and critics of the security establishment (dubbed "digital terrorists").
- Installation of a special firewall to slow down internet with capacity to simultaneously surveil 40 million internet users and effect digital censorship.

6. ALT DIGITAL POLITICS – electoral online social defiance

Two broad trends in recent years have made politics tech-dependent and elections digital media-centric in Pakistan:

Erosion of public interest journalism: Successive elected governments have consistently cracked down on freedom of expression and manipulated mainstream media into near-complete abandonment of its mission of guardianship of public interest. Impact > Trust in traditional media is at an all-time low. Social media sphere has taken its place, notwithstanding the phenomenon of disinformation.

Emasculation of political mandates: Arm-twisting of political parties (PPP, PML-N and PTI) and engineered ouster of political party heads (Prime Ministers Yousaf Gilani, Nawaz Sharif and Imran Khan) has forced parties to mostly distance themselves from issues that anger the security establishment. **Impact >** Popular political and civil rights movements stemming from urban unrest and periphery discontent blacked out by traditional media have been driven by digitally savvy youth led groups that have ignited a new generation of subaltern politics. Helped by social media, political mobilization is online and narratively incendiary.

Key recent civil rights movements ignored by media and mainstream political parties that have digitalized politics through a new ‘counter political narrative’ by mostly social rights movements include:

- Aurat March > seeking **equal rights for women** – now a vibrant annual event
- Haq Dau Tehreek > seeking **water rights** for and protection from **evictions** from Gwadar along the Balochistan coast.
- Wapsi Tehreek > seeking end to **forced disappearance** and return of thousands of **missing persons**, mostly from Balochistan.
- Pashtun movement > seeking **free movement** within tribal areas bordering Afghanistan and end to settlement of militants.

7. ENTER AI: Use of artificial intelligence in 2024 elections

The year 2024 was the year all key Pakistani actors with stakes in politics and elections – political parties, key politicians, security establishment and voters – stepped up use of tech resources, including social media and AI (artificial intelligence).

In recent years Pakistani prime ministers have rarely appeared before media to conduct press conferences – including four premiers in two years (Khan, Sharif, Kakar, Sharif). They all actively personally use X/Twitter to communicate – *even now when the government itself has banned X*. The 2024 elections – and the preceding two-year political and constitutional crisis – were no different.

Some examples:

- Before being ousted in April 2022, Khan jailed Shahbaz Sharif (elected prime minister in 2024 elections) and Maryam Nawaz (elected Punjab crime minister in 2024 elections) to basically stop them communicating through X/Twitter and other social media even

though both were blacked out by mainstream conventional media under pressure.

- For the six months after he was ousted by parliament, Khan remained holed up at home but relentlessly “addressed the nation” through X, Facebook and YouTube live – often speaking for hours. His aggressive digital politics helped him become one of Pakistan’s most popular politicians ever.
- Jailing him, silencing his X/Twitter account and disqualifying him from elections did not prevent Khan for canvassing for his party (itself electorally banned) and candidates in the 2024 elections and garnering record votes. His party used an AI audio clone and AI avatar of Khan multiple times to hold “digital jalsas” and “address the nation” to mobilize voters. This was the first instance of the effective use of AI by a Pakistani politician.

The ensuing crackdown on digital politics of opposition – new draconian social media regulations, banning of social media platforms, enhancing state’s digital surveillance capacity, special tribunals to prosecute digital dissent and criticism of the security establishment by political actors and throttling of the internet, including long suspensions during political protests – is a direct result of Pakistan aggressively embracing digital democracy.

8. THE GOOD AND THE BAD: Final takeaways from Pakistan’s digital politics and democracy in 2024

Downside: Digital democracy in Pakistan is now officially seen by some quarters as a threat to their traditional domination of the polity and hybrid model of democracy being promoted. Hence equation of digital dissent with “digital terrorism”. This raises the specter of reversal of key democratic gains made by Pakistan in recent years, including digitalization of society, governance and economy. Threatened by aggressively populist digital politics by the more digitally savvy political parties, Pakistan’s traditional political parties seem to be inadequate in their response to the opportunity of making their centrist and non-incendiary politics mainstream by failing to embrace tech-anchored democracy.

Upside: Overall, digital technology’s impact on the 2024 elections in Pakistan was arguably the greatest ever in national history forever changing the shape of elections and democracy in the country. It effectively helped counter propaganda aimed at discouraging greater democratic participation and also helped improve accountability of the electoral process ensuring there was a digital bulwark against greater disillusionment with democracy.

Chapter 2

Section A: POLICIES – Regulations Governing Digitalization



A1. DIGITAL POLICIES AND REGULATIONS

A general overview of the progress and backsliding in policies, processes and practices relating to greater digitalization of Pakistani state, government, society and economy.

A1a. National digitalization policy

Summary: The government plans to enact through parliament the ‘Digital Nation Pakistan Act’ to establish a national digital identity and service for citizens to improve access to services and enhanced digital governance. This will involve creating two key bodies in 2025: the National Digital Commission, led by the prime minister, and the Pakistan Digital Authority, led by industry experts. These bodies will develop a national digitization masterplan and sector-specific plans, encouraging private sector involvement. The initiative includes creating a cashless economy, enhancing data interoperability, and improving government transparency through digital governance. It will also foster AI-based startups in key sectors and will be funded by a \$78 million World Bank project, launching in 2025.

In early December 2024, the government tabledⁱⁱ in Parliament a bill to serve as a legal framework for its ambitious ‘**Digital Nation Pakistan**’ by tabling an act in parliament. The ‘Digital Nation Pakistan Act’ aims to create a national digital identity for every citizen, providing seamless access to critical services. The plan will establish in 2025 two key bodies. First will be a **National Digital Commission**, to be headed by the prime minister and include all four chief ministers as well as heads of data-rich organizations like the State Bank of Pakistan, federal Board of Revenue and Pakistan Telecommunications Authority. The second will be a **Pakistan Digital Authority** to be led by top industry experts. The two bodies are projected to work in tandem to develop a masterplan to serve as a blueprint for national digitization. Sector-specific digitization masterplans will also be created, shared with relevant ministries, and made public to engage the private sector, which is expected to lead and benefit most from the digitization agenda.

The proposed digital infrastructure supported by the Commission and the Authority will enable productive data interoperability while ensuring data security. Conceived partnerships could include tax authorities automatically accessing information about property purchases, while healthcare providers could access patient records through standardized digital channels. On the economic side, the initiative aims to create a cashless economy through digital wallet payments with the intention to formalize the grey economy, increase transparency and improve government revenue. Citizens will develop digital

financial histories, potentially making it easier to access bank loans and receive government incentives.

The Digital Nation Pakistan plan also includes digital governance. While news reports say the federal government has already transitioned 65 percent of its operations to electronic offices, official sources say a new dashboard is planned in 2025 to provide the prime minister with real-time access to departmental files, dramatically improving governmental accountability. A 'Civic Lab' is also planned to focus on AI-based startups in sectors like healthcare, education, agriculture and climate change resilience. Funding for this undertaking has reportedly been secured through a \$78 million World Bank project known as Digital Economy Enhancement Project (DEEP). The project will kick off in early 2025.

In December, the federal government tabled in Parliament the National Forensics Agency Bill 2024 aimedⁱⁱⁱ at “integrating digital and cyber forensics to combat crimes involving electronic devices, deepfakes and other electronic offences.” In May, the Ministry of Interior directed the National Database and Registration Authority (NADRA) to devise a new national digital registration policy aimed at making the citizenship registration policy transparent and digitally safe. In December, the federal cabinet approved a new ‘National Registration and Biometric Policy.’ In December, the Ministry of IT and Telcom in a briefing^{iv} to the federal cabinet said that e-office system has been established “100%” in 18 federal divisions of government while work was pace in other divisions.

A1b. Regulating open digital spaces

Summary: In 2024, the federal government took multiple steps to tighten control over online content and social media activity of political activists, journalists and citizens, signaling a growing trend of coercive digital over-regulation with significant implications and consequences for freedom of expression and digital privacy. These included a move to establish a ‘Digital Rights Protection Authority’ with powers to block content, restrict social media access and impose Rs10 million fine and 5-year jail terms for posting content deemed unacceptable to the state.

Crackdown on dissent: In December, the federal government formed¹ a 10-member task force to identify those spreading “malicious propaganda against Pakistan” on social media platforms. The same month, reports² revealed the federal government’s plan to amend the Prevention of Electronic Crimes Act (PECA) 2016, paving the way for the creation of the Digital Rights Protection Authority (DRPA). The new body would have the power to block online content, restrict social media access, and prosecute fake news spreaders with fines of Rs10 million and up to five years in prison. The National Action Plan (NAP) coordination committee, in December, resolved³ to implement measures to curb and block the activities of banned organizations on social media platforms. In December, the federal government tabled the National Forensics Agency Bill 2024 aimed^v at “integrating digital and cyber

¹ Alvi, M & Qadir, R. G. (2024). PM forms panel to crack down on anti-state propaganda. The News. <https://www.thenews.com.pk/print/1257198-pm-forms-panel-to-crack-down-on-anti-state-propaganda>

² Guramani, N. (2024). Changes to cybercrime law to tighten noose on social media. Dawn. <https://www.dawn.com/news/1876386#:~:text=A%20draft%20of%20the%20'Prevention,action%20against%20social%20media%20platforms>

³ Khan, I. A. (2024). Govt moves to curb social media use by terror outfits. Dawn. <https://www.dawn.com/news/1876521>

forensics to combat crimes involving electronic devices, deepfakes and other electronic offences.” The law, if enacted would make prosecuting journalists and political activists easier for their freedom of expression. In December, the Federal Investigations Agency initiated action^{vi} against over 150 individuals, including journalists and vloggers, for allegedly promoting a false narrative against state institutions in the backdrop of the November 26 protests in Islamabad by Pakistan Tehrik Insaf supporters. The FIA Cybercrime Wing also arrested over 20 social media activists for posts related to the protests. In December, the federal government reinstated^{vii} powers to FIA Cybercrime Wing to act crimes against social media reversing a 2023 decision to delegate these powers to act against fake news to the National Cyber Crimes Investigation Agency, which has now been abolished.

A1c. Cybersecurity

Summary: Pakistan experienced a rise in cyberattacks in 2023 running into millions, prompting the government in 2024 to strengthen its cybersecurity measures in 2024. These included allocation of billions of rupees in funding and establishment of dedicated teams to counter threats to critical national cyber infrastructure.

Bolstering cybersecurity: In a bid to revive the cybersecurity function of the Digital Information Infrastructure Initiative (DIII), the Economic Coordination Committee (ECC) in February approved⁴ a supplementary grant of Rs10 billion. In March, the National Database and Registration Authority (NADRA) initiated⁵ implementation on measures forwarded by a joint investigation team to enhance institutional cybersecurity and improve service delivery. In July, Pakistan called⁶ for a UN-endorsed legally binding framework to govern global cyberspace, describing it as the common heritage of humanity. In August, to bolster national cybersecurity, the federal government formed⁷ a ten-member Cyber Emergency Response Team (CERT) council tasked with developing a framework to address threats to critical cyber infrastructure.

Cyber threats: In February, global cybersecurity firm Kaspersky reported⁸ a 17 per cent rise in online threats in Pakistan in 2023 compared to the previous year, with nearly a quarter of Pakistani internet users affected. In March, the Power Information Technology Company (PITC) reported⁹ that their digital security systems blocked 39.5 million of the 40 million cyber threats targeting Pakistan’s power generation and transmission sector. In June, the Federal Investigation Agency (FIA) warned¹⁰ the public about a rise in WhatsApp account

⁴ Kiani, K. (2024). ECC okays Rs10b more for cybersecurity. Dawn. <https://www.dawn.com/news/1812084>

⁵ NADRA acting on JIT proposals on cyber security issue. (2024, March 2). The News. <https://www.thenews.com.pk/print/1163482-nadra-acting-on-jit-proposals-on-cyber-security-issue>

⁶ Pakistan calls for UN cyber governance. (2024, July 13). Express Tribune. <https://tribune.com.pk/story/2479297/pakistan-calls-for-un-cyber-governance>

⁷ Ansari, I. (2024). Govt moves to bolster national cyber security. Express Tribune. <https://tribune.com.pk/story/2488710/govt-moves-to-bolster-national-cyber-security#:~:text=The%20Ministry%20of%20IT%20on,ever%2Demerging%20threats%20and%20hacking.>

⁸ Rizvi, J. (2024). Pakistan sees 17pc rise in cyberattacks in 2023, but still low in region: Kaspersky. The News. <https://www.thenews.com.pk/print/1159347-pakistan-sees-17pc-rise-in-cyberattacks-in-2023-but-still-low-in-region-kaspersky>

⁹ Butt, A. M. (2024). Pak power sector operations faced 40m cyber threats in a year. The News. <https://www.thenews.com.pk/print/1171029-pak-power-sector-operations-faced-40m-cyber-threats-in-a-year>

¹⁰ FIA warns of cybercriminals targeting WhatsApp accounts. (2024, June 11). Express Tribune. <https://tribune.com.pk/story/2470903/fia-warns-of-cybercriminals-targeting-whatsapp-accounts>

hacking incidents, particularly targeting women’s accounts. In November, the Minister for Interior revealed¹¹ a surge in WhatsApp hacks, with 1,500 accounts compromised in Pakistan since July.

A1d. Surveillance and privacy

Summary: During 2024, the legal and technical qualifications, capacities and initiatives of the state to conduct official surveillance of private digital activity generated persistent controversy and public outrage over violations of the right to privacy. These included interception of phone calls, including those of politicians, judges and rights activists, and their leakage online, as well as trial and installation of a firewall reportedly acquired for over Rs30 billion, allowing the state to mass-surveil over 25 million internet users simultaneously. Both the ‘audio leaks’ case and the ‘firewall’ issue embroiled the government, intelligence agencies, superior courts, political parties and civil society in legal cases in superior courts. The courts questioned the legal basis for the surveillance which government departments, including telecom regulators and intelligence agencies, put on notice found difficult to justify. As part of the surveillance regime, another controversy included an announcement by the government to ban unauthorized use of VPNs that allow access to even blocked platforms and content.

The listening game: In September 2023, Bushra Bibi, former first lady, filed a petition with the Islamabad High Court (IHC) over the alleged leak of a phone conversation between her and Zulfi Bukhari, a former aide to then prime minister Imran Khan. This incident, part of a troubling series of leaked recordings of private conversations since 2022, quickly became a sensitive legal matter, implicating the judiciary, the federal government, and intelligence agencies.

In March, the IHC summoned¹² the chairman of the Pakistan Telecommunication Authority (PTA) in the ‘audio leak case’ after his counsel denied any approval for call interception by the regulatory body. During the hearing, the head of the Intelligence Bureau (IB) told¹³ the court that identifying responsibility for audio tapping required an investigation, and the agency could neither confirm nor deny recoding private calls. Later in March, the PTA informed¹⁴ the IHC that only the federal government had the authority to approve phone tapping for national security or crime-related concerns.

In May, the IHC issued¹⁵ preliminary contempt notices to three federal agencies for attempting to have a judge recuse himself from a case involving surveillance of citizens. The

¹¹ Pakistan faces surge in WhatsApp hacks. (2024, November 4). Pakistan Press Foundation. <https://www.pakistanpressfoundation.org/pakistan-faces-surge-in-whatsapp-hacks-over-1400-accounts-compromised-amid-rising-cybercrime-says-interior-minister/>

¹² Asad, M. (2024). PTA head summoned to clarify position on audio leak. Dawn. <https://www.dawn.com/news/1819257>

¹³ Mahmood, F. (2024). IB neither confirms, nor denies audio tapping. Express Tribune. <https://tribune.com.pk/story/2458416/ib-neither-confirms-nor-denies-audio-tapping>

¹⁴ Yousafzai, A. (2024). Audio leaks case: Only federal govt can allow phone tapping, IHC told. The News. <https://www.thenews.com.pk/print/1168350-audio-leaks-case-only-federal-govt-can-allow-phone-tapping-ihc-told>

¹⁵ Mehtab, U. (2024). IHC issues contempt notices to IB, FIA, PTA over ‘collusive’ recusal pleas in audio leaks case. Dawn. <https://www.dawn.com/news/1831445>

same month, Justice Babar Sattar formally wrote¹⁶ to the Chief Justice of the IHC, alleging interference by the security establishment in judicial affairs. He claimed top officials of state intelligence agencies had pressured him to stop examining audio leaks. Following public release of this letter, the federal government rejected¹⁷ Justice Sattar's claims, prompting officials to provide clarifications in court and to the public.

In June, the Supreme Court (SC) clarified¹⁸ that an audio leak allegedly featuring former prime minister Imran Khan was not leaked from its courtroom, assuring that an investigation was conducted on the matter. In August, the SC halted¹⁹ IHC proceedings in the audio leaks case and suspended its order to initiate contempt proceedings against officials of the PTA. During the same hearing, the SC lamented²⁰ that the audio leaks inquiry commission, responsible for verifying the audio leaks' authenticity, had not convened since May 2023. In December, the SC constitutional bench allowed²¹ the federal government's counsel more time to seek directives in the audio leaks case.

Legalized eavesdropping: Following judicial troubles regarding unauthorized phone call recordings, the federal cabinet in July empowered²² the Inter-Services Intelligence (ISI) to intercept phone calls and messages, or trace communications, in the interests of national security or to prevent potential criminal activity. The same month, a Dawn report²³ stated that while phone tapping and intercepting communications of those suspected of criminal, terrorist, or anti-state activities was not new in Pakistan, it was worrying that the government had now granted it legal sanction. The federal government's decision, in July, was challenged²⁴ in the IHC by the Pakistan Bar Council (PBC), seeking nullification of this notification. After the IHC acceptance²⁵ of this petition, the Sindh High Court (SHC), responding to a separate petition, issued²⁶ notices to the cabinet division, Ministry of Interior, and other respondents on the constitutionality of the decision to grant a state intelligence agency the right to intercept calls and messages.

Firewall control: In August, the PTA confirmed²⁷ that the federal government's web management system (WMS) was being upgraded to manage and block social media

¹⁶ Letter to IHC CJ: Told by top officials to back off from scrutinizing audio leak, says Justice Sattar. (2024, May 15). <https://www.thenews.com.pk/print/1189165-writes-to-ihc-cj-told-by-top-officials-to-back-off-from-scrutinising-audio-leak-justice-sattar>

¹⁷ Govt pushes back claims in new leak. (2024, May 14). Express Tribune. <https://tribune.com.pk/story/2466554/govt-pushes-back-claims-in-new-leak>

¹⁸ CJP rules out Imran's audio leaked from Supreme Court. (2024, June 15). Pakistan Today. <https://www.pakistantoday.com.pk/2024/06/15/cjp-rules-out-imrans-audio-leaked-from-supreme-court/>

¹⁹ Abbasi, J. (2024). SC halts IHC proceedings in audio leaks case. Express Tribune. <https://tribune.com.pk/story/2489425/sc-halts-ihc-proceedings-in-audio-leaks-case>

²⁰ Iqbal, A. (2024). Audio leaks inquiry commission never met in over a year: SC. Dawn. <https://www.dawn.com/news/1853663>

²¹ Mehtab, U. (2024). Audio leaks case: SC allows additional attorney general more time to seek directives from govt on inquiry. Dawn. <https://www.dawn.com/news/1876207>

²² Qarar, S. (2024). Govt formally authorizes ISI to 'trace, intercept' calls and messages in 'interest of national security'. Dawn. <https://www.dawn.com/news/1844810>

²³ Asad, M. (2024). Situationer: How audio leaks led to 'permission to intercept'. Dawn. <https://www.dawn.com/news/1844907>

²⁴ Asad, M. (2024). Senior lawyers challenge ISI's surveillance powers in IHC. Dawn. <https://www.dawn.com/news/1845339>

²⁵ Sheikh, W. A & Asad, M. (2024). IHC to hear plea against ISI's call interception powers. Dawn. <https://www.dawn.com/news/1845525>

²⁶ Tanoli, I. (2024). SHC issues notices in ISI 'interception' powers case. Dawn. <https://www.dawn.com/news/1847466#:~:text=KARACHI%3A%20The%20Sindh%20High%20Court,to%20intercept%20calls%20and%20messages.>

²⁷ Haider

content. The same month, Amnesty International (AI) urged²⁸ authorities to ensure greater transparency regarding the deployment of online surveillance technologies. In September, a report published in The News warned²⁹ that intentional internet disruptions and widespread online surveillance were a threat to Pakistan's digital landscape and democratic freedoms. Another report³⁰ published by The News in the same month criticized the federal government's pursuit of a social media landscape devoid of dissent towards state institutions by implementing anti-democratic web control measures. In November, global think tank Information Technology and Innovation Foundation (ITIF) warned³¹ that while internet restrictions in Pakistan may offer short-term political gain, they risk long-term democratic and economic instability due to the heavy costs of such shutdowns and restrictions. The same month, according to a Dawn report³², experts feared the federal government's descent into draconian internet censorship could sever the country's ties to a promising digital future.

The VPN controversy: In August, the PTA admitted³³ before a parliamentary committee a plan to regulate virtual private network (VPN) usage in Pakistan by whitelisting only registered proxy networks. Following this admittance, an August report³⁴ published in The News claimed over 20,000 virtual private networks (VPNs) had registered their networks to ensure compliance. In September, the PTA claimed³⁵ that VPNs in Pakistan were not being discriminately blocked.

In November, over two dozen unregistered VPNs were blocked³⁶ during a six-hour trial of the web management system (WMS). The Ministry of Religious Affairs, in the same month, wrote³⁷ to the federal government requesting forceful blocking of blasphemous content on digital platforms. After a nationwide disruption in November, the PTA indicated³⁸ plans to restrict VPN usage in the future to limit access to online pornography. In a controversial move in November, the Council of Islamic Ideology (CII) declared³⁹ the use of VPNs to access 'immoral' content un-Islamic and against Sharia. Amid intense backlash⁴⁰ from fellow

²⁸ Pakistan: Authorities must be transparent about internet disruptions and surveillance tech. (2024, August 26). Amnesty International. <https://www.amnesty.org/en/latest/news/2024/08/pakistan-authorities-must-be-transparent-about-internet-disruptions-and-surveillance-tech/>

²⁹ Ali, M. (2024). An ethernet of silence. The News. <https://www.thenews.com.pk/tns/detail/1225408-an-ethernet-of-silence#:~:text=eliberate%20disruptions%20of%20internet%20access,democratic%20freedoms%20and%20human%20rights.>

³⁰ Quraishi, O. (2024). The great firewall of Pakistan. The News. <https://www.thenews.com.pk/print/1227076-the-great-firewall-of-pakistan>

³¹ Rana, S. (2024). Internet curbs may cost Pakistan dearly. Express Tribune. <https://tribune.com.pk/story/2509738/internet-curbs-may-cost-pakistan-dearly>

³² Web controls suppress dissent, stifle potential. (2024, November 28). Dawn. <https://www.dawn.com/news/1875232>

³³ Ali, K. (2024). Plan in works to limit VPN use: PTA chief. Dawn. <https://www.dawn.com/news/1849528>

³⁴ Over 20,000 VPN service providers registered with PTA for whitelisting. The News. <https://www.thenews.com.pk/print/1224603-over-20-000-vpn-service-providers-registered-with-pta-for-whitelisting>

³⁵ VPNs not being blocked, PTA clarifies. (2024, September 11). Dawn. <https://www.dawn.com/news/1858271#:~:text=KARACHI%3A%20The%20Pakistan%20Telecom%20Authority,is%20planning%20to%20block%20VPNs.>

³⁶ Cheema, U. (2024). Over two dozen VPNs temporarily blocked in a firewall experiment. The News. <https://www.thenews.com.pk/print/1249781-over-two-dozen-vpns-temporarily-blocked-in-a-firewall-experiment>

³⁷ Ali, K. (2024). Religious affairs ministry wants PTA to block offensive content internet. Dawn. <https://www.dawn.com/news/1872073>

³⁸ Ali, K. (2024). PTA signals further VPN curbs. Dawn. <https://www.dawn.com/news/1872252#:~:text=ISLAMABAD%3A%20Following%20a%20disruption%20that,curb%20access%20to%20pornographic%20content.>

³⁹ Ali, K & Khan, I. A. (2024). Use of VPNs to access blocked content deemed 'un-Islamic'. Dawn. <https://www.dawn.com/news/1872734>

⁴⁰ Ali, K. (2024). Council of Islamic Ideology under fire over decree against use of VPNs. Dawn. <https://www.dawn.com/news/1872901>

religious scholars and digital rights activists, the Council later distanced⁴¹ itself from the decision, attributing the confusion to a clerical error.

Later in the month, the PTA mandated⁴² that banks, embassies, information technology (IT) firms, and freelancers register their VPNs to ensure data security and uninterrupted internet access. The Pakistan Software Houses Association (P@SHA) swiftly condemned⁴³ the decision, warning it could lead to a \$1 billion loss for the information technology (IT) industry. Following tighter social media restrictions, demand for VPNs in Pakistan tripled⁴⁴, with independent review platform Top10VPN reporting a 102 per cent surge in November compared to previous months. Cybersecurity watchdog Netblocks, in the same month, confirmed⁴⁵ that WhatsApp services were shut across much of Pakistan for several hours, leaving users unable to send or receive messages.

In November PTA launched⁴⁶ a second two-day trial to block unregistered VPNs accessing restricted sites. However, after facing widespread criticism, in December the PTA decided⁴⁷ not to ban VPNs, citing lack of legal grounds, allowing VPNs to remain operational in Pakistan.

⁴¹ CII chief blames contentious VPN stance on 'typo'. (2024, November 21). Dawn. <https://www.dawn.com/news/1873758>

⁴² Ansari, I. (2024). VPN registration made mandatory. Express Tribune. <https://tribune.com.pk/story/2511124/vpn-registration-made-mandatory>

⁴³ P@SHA calls VPN ban '\$1bn threat' to IT industry. (2024, November 22). The News. <https://www.thenews.com.pk/print/1253710-p-sha-calls-vpn-ban-1bn-threat-to-it-industry>

⁴⁴ VPN demand more than triples in Pakistan: Report. (2024, November 26). Geo News. <https://www.geo.tv/latest/576373-vpn-demand-more-than-triples-in-pakistan-report>

⁴⁵ NetBlocks confirms WhatsApp outage. (2024, November 25). The News. <https://www.thenews.com.pk/print/1254704-netblocks-confirms-whatsapp-outage>

⁴⁶ PTA initiates 2nd VPN shutdown exercise. (2024, November 26). Express Tribune. <https://tribune.com.pk/story/2511950/pta-initiates-2nd-vpn-shutdown-exercise>

⁴⁷ Ali, K. (2024). PTA decides not to ban VPNs over 'lack of legal grounds'. Dawn. <https://www.dawn.com/news/1875860>

Chapter 3

Section B:

PROCESSES – State of Digital Reforms and Progress



B1. DIGITAL GOVERNANCE SYSTEMS

Progress on e-governance and digitalization of government departments and public sector in general.

B1a. Digital financial systems (including digital payments)

Summary: The federal and provincial governments undertook several initiatives during 2024 for digitalization of the financial regulatory system for improved efficiency. These including enhanced scale and pace of digitalization of the taxation and remittances system, making tax payments and funds transfers easier and more transparent.

Online access: In March, the federal government transferred⁴⁸ the Web-based One Customs (WeBOC) system of the Pakistan Revenue Automation Limited (PRAL) of the Federal Bureau of Revenue (FBR) to the Pakistan Single Window (PSW) to improve public access of the database.

Taxpayer centric: In the same month, the Bureau partnered⁴⁹ with Karandaz Pakistan to digitize the tax system, aligning with ongoing reforms. Under the agreement, Karandaz will assist FBR in the assessment of business needs, existing IT infrastructure and systems, and business processes to establish the context and scope for digitalizing the tax system using service-oriented and taxpayer-centric use cases.

Transport micropayments: Also in March, the Sindh government introduced⁵⁰ a digital prepaid system for the People's Bus Service in Karachi, aiming to phase out cash payments of bus fares and encouraging digital micropayments in the public transport sector. **Online tax payments:** In August, the Sindh Excise and Taxation Department enabled⁵¹ online tax payments through the One-link system. This will allow people to pay taxes online from the comfort of their homes.

Revenue interface: The federal government, in the same month, formed⁵² a 10-member Task Force to recommend measures to the prime minister to deepen digitalization and fast-track the digitalization of FBR for improved transparency and public revenue interface. .

Digital remittances: In August, Prime Minister Shehbaz Sharif launched⁵³ the Buna-Raast connectivity project to facilitate faster, cheaper and more efficient digital remittance transfers back home for millions of overseas Pakistanis based in Gulf countries.

⁴⁸ Pakistan Single Window to take over WeBOC – Express Tribune

⁴⁹ FBR partners with Karandaz for digitalisation - Business - DAWN.COM

⁵⁰ Digital payment system for Peoples Bus Service from next month - Newspaper - DAWN.COM

⁵¹ One link system for excise tax payments launched in Sindh – Express Tribune

⁵² PM forms 10-member task force for FBR digitalisation - Profit by Pakistan Today

⁵³ PM Shehbaz launches Buna-Raast connectivity project – The News

Digital compliance: In September, FBR announced⁵⁴ plans to modernize tax administration through digital invoicing and desk audits aimed at enhancing tax compliance and meeting IMF benchmarks to bridge the tax gap – the difference between what taxpayers owe and what they actually pay.

Digital designations: Additionally, in October, the Bureau restructured⁵⁵ senior officer roles to streamline operations and accelerate digitalization. The re-designated functions will empower senior officials to monitor tax compliance better and accelerate the digitalization processes.

B1b. Digital government services and facilities

Summary: The federal and provincial governments during 2024 offered new facilities or strengthened existing digital mechanisms to public and other targeted audiences and beneficiaries in terms of services in various sectors. These measures were aimed at improving the public and stakeholder experience of digitally accessing and procuring government services in the health, education, food, agriculture and financial sectors. Improved digital accessibility of key public services included attestation of documents; provision of certificates of birth, domicile, marriage, divorce, death and domicile; land ownership verification, transfer and property tax payment; e-stamps; vehicle registration, transfer and tax payment; and driving licences.

Measures by the federal government

- **Economy:** In April, the World Bank (WB) approved⁵⁶ a \$149.7 million loan to Pakistan for two projects: one focused on greater digitalization of the national economy and the other on flood prevention. \$78 million are allocated for the ‘Digital Economy Enhancement Project’, which will improve financial system through technology and data-based decision making as a means of supporting digital economy as the key to economic and social development.
- **Education:** In May, the federal government launched⁵⁷ a program to digitally train and certify 1.8 million teachers and future workforce members. The initiative will be led by the National Institute of Excellence in Teacher Education (NIETE) in collaboration with the LUMS School of Education.
- **Food:** Prime Minister Shehbaz Sharif, in the same month, ordered⁵⁸ the development of a mobile application to increase transparency in wheat procurement by the government from farmers from across the country. He also suspended two senior officials of the Pakistan Agricultural Storage and Services Corporation (PASSCO) for failure to implement earlier directives for utilization of technology in wheat procurement.

⁵⁴ FBR plans digital invoicing, audits as tax gap hits Rs7tr - Business - DAWN.COM

⁵⁵

⁵⁶ \$149.7m WB loan for flood protection, digitisation – Express Tribune

⁵⁷ Govt to digitally train 1.8 million teachers – The News

⁵⁸ PM sees mobile app as solution for transparent wheat procurement – Express Tribune

- **E-governance:** In June, the federal cabinet approved⁵⁹ the Digital Nation Pakistan Act 2024 to establish the National Digital Commission (NDC) and Pakistan Digital Authority (PDA). These approval are aimed at accelerating Pakistan’s digital transformation and promote e-governance. The cabinet asked the law ministry to ensure the Act could optimize digitization of the services sector in accordance with international standards. The National Digital Commission would act as a policymaking organisation headed by the PM and comprising federal and provincial members. The Pakistan Digital Authority would work on achieving the objectives of ‘Digital Pakistan’ policy and being a corporate entity exercise financial and administrative autonomy.
- **Attestation:** In August, the Ministry of Foreign Affairs (MoFA) launched⁶⁰ the Apostille Convention to simplify and digitalize the authentication process for foreign documents. The facilitation will streamline the authentication process for public documents intended for international use by Pakistani citizens. The apostille certification services would be provided by at its Islamabad headquarters and liaison offices in Karachi, Lahore, Peshawar, Quetta and Gujrat.
- **E-parliament:** In April, a report⁶¹ published in *The News* advocated for an e-parliament system that can enhance civic engagement and legislative accountability by providing online access to legislative records.

Measures by the Khyber Pakhtunkhwa government

- **Digitizing records:** In August, the Khyber Pakhtunkhwa Ombudsman’s office announced^{viii} plans to modernize its operations by digitizing its records and introducing information and communication technology (ICT) solutions to enhance staff efficiency.
- **Land record access and verification:** In October, the Khyber Pakhtunkhwa government introduced^{ix} an electronic *Jaidad Card* to simplify land record access and transfer for residents. This will allow citizens with easy and secure access to their land record through an integrated digital system. Initially to be introduced in the merged tribal districts, the *Jaidad Card* will function as an e-passbook allowing citizens access to all their land records by scanning the QR code on the card using a smartphone. The measure is aimed at preventing potential tampering and manipulation in land records and access to complete record of every citizen’s owned land in any district. A mobile app will also be available for verifying the information provided in the card.

Measures by the Punjab government

- **E-services at the doorstep:** In March, Chief Minister Maryam Nawaz launched^x the *Dastak* mobile application, a digital platform designed to deliver 10 essential government services directly to residents of Lahore. In Phase 1 the services provided will include birth certificate, death certificate, marriage-certificate, divorce certificate, domicile, e-stamp, vehicle registration, vehicle transfer, token tax and property tax services. Phase 2 will cover character certificate, police verification, learner’s driving licence, driving licence

⁵⁹ <https://www.dawn.com/news/1839337> - Dawn

⁶⁰ Online apostille application system launched at foreign ministry – The News

⁶¹ Parliamentary transparency | Political Economy | thenews.com.pk

renewal, copy of FIR, duplicate driving licence and tenant registration. Phase 3 will take the number of services to over 100. Citizens can access the services through the *Dastak* app and receive the services at home without needing to go to any office.

- **Land records as digital neighborhoods:** In May, the provincial government initiated^{xi} the process of digitizing all provincial land records. The ‘Punjab Urban Land Systems Enhancement (PULSE) project is being implemented with assistance of the World Bank through the Punjab Land Record Authority and Management of Estate Land. The project will digitalize all urban neighbourhoods (mouzas) across Punjab.
- **Apps for farmers:** In June, Chief Minister Maryam Nawaz directed^{xii} the launch of the Punjab Livestock Card (PLC) and a dedicated Farmer Guidance Application to empower livestock farmers in the province by providing them with a range of digital services and support. These initiatives aim at helping farmers hassle-free access to Rs250,000 interest-free loans for animal feed.
- **Preventing property fraud:** In October, the Rawalpindi Development Authority (RDA) launched^{xiii} a new digital application to counter fraud and protect property transactions within its 13 housing schemes, ensuring transparency and security for buyers and sellers.

Measures by the Sindh government

- **Driving licenses:** In September, Karachi residents gained^{xiv} the convenience of applying for driving licenses from home, including international permits and renewals of non-commercial licenses, through an online portal. The online application system is expected to drastically reduce the burden on driving licence branches and promote improved traffic management documentation through IT.
- **Fertilizer platform:** In October, the Sindh government launched^{xv} the “UgAI” digital platform, the country’s first integrated e-commerce platform for the farming community, will tackle key market-related challenges that farmer face. The platform will help combat issues such as artificial fertilizer shortages, price manipulation, and counterfeit products affecting farmers by enabling them to directly purchase fertilizers at official prices.

B2. DIGITAL FREEDOM OF EXPRESSION AND ACCESS TO INFORMATION

State of free speech/hate speech in online spaces, including issues related to online disinformation and defamation, and digitalization developments and trends in the media sector.

Summary: The rights to freedom of expression and access to information in Pakistan, as enshrined in the Constitution, remained under severe and repeated attacks during 2024, particularly in the digital and online spheres. Banning of social media platforms, internet shutdowns, throttling of internet speeds, installation of the firewall, suspension of mobile telephony and internet services, and invoking the Prevention of Electronic Crimes Act (PECA) to institute legal cases against journalists and political activists for digital free speech remained frequent throughout the year. These measures emerged as the most serious threat to the digitalization of Pakistan and public interest.

X under lockdown: In February, internet monitoring service NetBlocks reported⁶² nationwide disruption in accessing social media platform X (formerly Twitter), attributing it to rising unrest and protests over allegations of fraud related to February 8 general elections. A report⁶³ published in The News opined that for a country that continually proclaims its commitment to seizing the opportunities of digitization, it is perplexing that access to X has been restricted multiple times in 2024. A Dawn report⁶⁴ criticized the authorities for blocking access to X aimed at exerting control over narrative building on social media. In response to the unannounced ban on X, the Sindh High Court (SHC) ordered⁶⁵ restoration of all social media platforms and demanded an explanation from authorities about internet outages on election day. Despite these orders from the court, access to X remained restricted⁶⁶ until the end of the year.

In March, Netblocks viewed⁶⁷ the digital blockade on X as a disruption to Pakistan's digital

⁶² X remains continually down. (2024, February 20). The News. <https://www.thenews.com.pk/print/1159532-x-remains-continually-down>

⁶³ Axing X. (2024, February 20). The News. <https://www.thenews.com.pk/print/1159356-axing-x>

⁶⁴ Silencing the public. (2024, February 21). Dawn. <https://www.dawn.com/news/1815941>

⁶⁵ SHC orders restoration of social media apps. (2024, February 21). Express Tribune. <https://tribune.com.pk/story/2457170/shc-orders-restoration-of-social-media-apps>

⁶⁶ Tanoli, I. (2024). X 'loadshedding' persists for 6th day despite SHC orders. Dawn. <https://www.dawn.com/news/1816417#:~:text=KARACHI%3A%20After%20six%20days%20of,cities%20hours%20after%20the%20order.>

⁶⁷ Pakistan: X blockade 'red flag' for investors, creates gap for disinformation, say experts. (2024, March 2). The Nation. <https://www.nation.com.pk/02-Mar-2024/pakistan-x-blockade-red-flag-for-investors-creates-gap-for-disinformation-say-experts>

economy and a barrier to controlling the spread of unchecked disinformation. The same month, a resolution seeking a blanket ban on social media access in Pakistan was tabled in the Senate, with a stated aim to shield the younger generation from “social media’s negative impact.” Two days later, the Pakistan People’s Party (PPP) senator who tabled the resolution withdrew it following intense backlash from fellow parliamentarians and civil society, including his own party. In response to a plea challenging restrictions on X, the Islamabad High Court (IHC) in March issued⁶⁸ notices to the Pakistan Telecommunication Authority (PTA) and the Ministry of Information and Broadcasting seeking explanation. Amnesty International (AI), in March, urged⁶⁹ the federal government to restore unrestricted public access to X, a call that received strong support⁷⁰ from Pakistan Tehreek-i-Insaf (PTI). Following immense criticism and contrary to earlier claims of accessibility to users, the federal government, in March, admitted to the unilateral suspension⁷¹ of X in Pakistan. Subsequently, a counsel for the Ministry of Interior informed the Sindh High Court (SHC) that X had been blocked⁷² in Pakistan “until further notice” based on reports provided by intelligence agencies.

In April, the SHC instructed⁷³ the Ministry of Interior to either justify the shutdown of X or withdraw its directive to PTA to block the platform. In the same month, the Ministry of Interior informed⁷⁴ the IHC that the ban on X was deemed necessary due to the platform’s inability to address concerns over misuse. Following monitoring of social media activities, the Counter-Terrorism Department (CTD) in April identified⁷⁵ over 17 trending topics on X, terming these as ‘sensitive’ and counterproductive to national security. In August, the Senate Standing Committee on Information Technology expressed⁷⁶ dissatisfaction with PTA officials’ briefing on the internet service slowdown and the ban on X.

In September, PTA informed⁷⁷ the SHC that the report on withdrawal of the X ban was a mistake, confirming that the suspension remains in place. In October, a federal official informed⁷⁸ the SHC that X had rejected multiple Pakistani government requests for content removal, citing compliance with its terms and conditions.

“Digital terrorism”: In April, military leadership pledged⁷⁹ action against those “undermining the armed forces” on social media, declaring a zero-tolerance policy toward online attacks on their reputation. Following the 83rd Formation Commanders Conference in May, the

⁶⁸ Mehtab, U. (2024). IHC issues notices to info ministry, PTA on plea challenging ‘ban’ on social media site X. Dawn. <https://www.dawn.com/news/1819336>

⁶⁹ Amnesty International urges govt to restore X. (2024, March 17). Dawn. <https://www.dawn.com/news/1822034>

⁷⁰ Junaidi, I. (2024). PTI endorses Amnesty’s call for restoration of X. Dawn. <https://www.dawn.com/news/1822443>

⁷¹ Tarar takes U-turn, admits X services suspended in Pakistan. (2024, March 19). The News. <https://www.thenews.com.pk/print/1169869-tarar-takes-u-turn-admits-x-services-suspended-in-pakistan>

⁷² Tanoli, I. (2024). X banned in country since Feb 17 on spy agencies’ reports, SHC told. Dawn. <https://www.dawn.com/news/1822791>

⁷³ Tanoli, I & Asad, M. (2024). Govt told to justify or withdraw ban on X. Dawn. <https://www.dawn.com/news/1828143>

⁷⁴ Misuse’ prompted ban on X. (2024, April 17). Express Tribune. <https://tribune.com.pk/story/2462911/misuse-prompted-ban-on-x#:~:text=ISLAMABAD%3A,concerns%20regarding%20its%20%E2%80%9Cmisuse%E2%80%9D>.

⁷⁵ Sheikh, N. (2024). Over 17 political trends on ‘X’ flagged sensitive. Express Tribune. <https://tribune.com.pk/story/2462947/over-17-political-trends-on-x-flagged-sensitive>

⁷⁶ Senate panel unconvinced by PTA briefing on ‘X ban’. (2024, August 23). The News. <https://www.thenews.com.pk/print/1222899-senate-panel-unconvinced-by-pta-briefing-on-x-ban>

⁷⁷ Butt, N. (2024). PTA clarifies X order still in effect. Express Tribune. <https://tribune.com.pk/story/2496266/pta-clarifies-x-ban-order-still-in-effect>

⁷⁸ Tanoli, I. (2024). X ‘mostly refused’ government’s requests for content removal. Dawn. <https://www.dawn.com/news/1863985>

⁷⁹ Army vows stringent action against online trolls. (2024, April 27). Dawn. <https://www.dawn.com/news/1827928>

military declared⁸⁰ a commitment to combat “politically motivated anti-army content on social media,” labelling such campaigns as “digital terrorism.” A Dawn report⁸¹ in July argued that criticism of the military’s alleged involvement in political matters and its questionable suppression of democratic freedoms should not be labelled as digital terrorism. In August, the army chief accused⁸² foreign powers of fueling a wave of digital terrorism on social media, allegedly designed to “drive a wedge between Pakistan’s state institution and its people.”

Misinformation surge: In January, a report⁸³ published in The News cautioned that as artificial intelligence (AI) use expands on social media, information consumers in Pakistan must learn to use tools and checks to distinguish real news from false information. In February, a Dawn report⁸⁴ urged innovation in digital investigation models to combat the spread of misinformation in the country. In the same month, multiple videos alleging voter fraud surfaced⁸⁵ on social media platforms. However, it was difficult to ascertain whether they were a part of an organized disinformation campaign or genuine.

In March, the Competition Commission of Pakistan (CCP) warned⁸⁶ social media influencers to refrain from deceptive advertising practices that could mislead online consumers. In May, the federal government announced⁸⁷ it was working to establish a dedicated authority to protect digital rights and combat social media propaganda. In July, Sindh police wrote⁸⁸ to the Federal Investigation Agency (FIA) seeking assistance in identifying and addressing fake websites and social media accounts spreading misinformation about their department. In October, FIA arrested⁸⁹ three individuals – a journalist, a lawyer and a content creator – for spreading an alleged rape story about a private girls’ college student, which sparked violent protests in Lahore.

Trolling the bench: In January, the federal government established⁹⁰ a five-member investigation team to uncover facts behind a social media campaign targeting judges of the Supreme Court (SC). The same month, the caretaker Information Minister dismissed⁹¹ reports of journalist harassment linked to a malicious social media campaign against judges of the SC, stating that an investigation team was legally and unbiasedly probing the issue. In

⁸⁰ Syed, B. S. (2024). ‘Digital terrorism’ to be snuffed out, declare commanders. Dawn. <https://www.dawn.com/news/1836777>

⁸¹ Hussain, Z. (2024). Fallacy of digital terrorism. Dawn. <https://www.dawn.com/news/1847671>

⁸² Army chief General Asim Munir sees foreign hand in ‘digital terrorism’. (2024, August 14). Dawn. <https://www.dawn.com/news/1852174>

⁸³ Hyat, K. (2024). Fact, fiction, and some truth. The News. <https://www.thenews.com.pk/print/1151010-fact-fiction-and-some-truth>

⁸⁴ Baig, A. (2024). Disinformation and fact-checking. Dawn. <https://www.dawn.com/news/1810835#:~:text=This%20method%20involves%20pre%20emptively,checks%20by%20reputable%20media%20organisations.>

⁸⁵ Videos of polling ‘malpractice’ flood social media. (2024, February 9). Dawn. <https://www.dawn.com/news/1812587>

⁸⁶ CCP warns social media influencers about deceptive marketing practices. (2024, March 8). Pakistan Press Foundation. <https://www.pakistanpressfoundation.org/ccp-warns-social-media-influencers-about-deceptive-marketing-practices/>

⁸⁷ Raza, I. R. (2024). Govt to form new body to combat misinformation: Attaullah Tarar. Dawn. <https://www.dawn.com/news/1831125#:~:text=ISLAMABAD%3A%20Minister%20for%20Information%20and,rumours%20on%20social%20media.>

⁸⁸ Khan, F. (2024). IGP asks FIA to take action against fake websites, social media accounts of Sindh police. The News. <https://www.thenews.com.pk/print/1209582-igp-asks-fia-to-take-action-against-fake-websites-social-media-accounts-of-sindh-police>

⁸⁹ Chaudhry, A. (2024). FIA identifies journalists, TikTokers for spreading ‘fake’ rape story. Dawn. <https://www.dawn.com/news/1865944>

⁹⁰ Khan, I. A & Iqbal, N. (2024). Govt forms JIT to probe drive against judges. Dawn. <https://www.dawn.com/news/1806406>

⁹¹ No witch-hunt in probe into trolling against judges, says minister. (2024, January 29). Dawn. <https://www.dawn.com/news/1809420#:~:text=ISLAMABAD%3A%20Brushing%20aside%20reports%20about,is%20probing%20the%20matter%20in>

February, the legal community condemned⁹² the online campaign against SC judges, accusing political elements of spreading falsified information to incite violence and hatred. In March, the IHC decided⁹³ to appoint amici curiae in a case regarding defamatory social media campaigns against state institutions.

Content takedown: In February, following complaints from YouTube content creators, the SHC directed⁹⁴ PTA to enforce laws to remove objectionable content from social media. In March, federal Minister for Information expressed⁹⁵ concern over the lack of content regulation of social media, which he said had become a source of fake news for users. In June, Peshawar police personnel were instructed⁹⁶ to refrain from uploading videos on social media platforms, including TikTok. In October, TikTok removed⁹⁷ over 30 million videos from Pakistan in the second quarter of 2024. The platform, also released its Community Guidelines Enforcement Report for Pakistan, emphasizing its proactive content moderation efforts.

⁹² Iqbal, N & Ali, K. (2024). Govt, legal community slam ‘malicious campaign’ against SC. Dawn. <https://www.dawn.com/news/1816446>

⁹³ Hussain, R. M. (2024). Social media campaign against institutions: IHC questions multiple FIRs on a single offence. The News. <https://www.thenews.com.pk/print/1170219-social-media-campaign-against-institutions-ihc-questions-multiple-firs-on-a-single-offence>

⁹⁴ Digital oversight. (2024, February 2). Dawn. <https://www.dawn.com/news/1810552>

⁹⁵ Tarar laments social media’s fake news. (2024, March 25). Express Tribune. <https://tribune.com.pk/story/2460475/tarar-laments-social-medias-fake-news#:~:text=ISLAMABAD%3A,a%20source%20of%20fake%20news>.

⁹⁶ Peshawar Police banned from posting on TikTok to improve performance and discipline. (2024, June 4). Pakistan Press Foundation. <https://www.pakistanpressfoundation.org/peshawar-police-banned-from-posting-on-tiktok-to-improve-performance-and-discipline/>

⁹⁷ TikTok removes over 30m videos from Pakistan in three months. (2024, October 16). Dawn. <https://www.dawn.com/news/1865429>

B3. DIGITAL POLITICS AND DEMOCRACY

Digitalization developments and trends in the democracy domain – politics, elections, political parties, politicians, parliament, digital activism, etc.

B3a. Elections and electoral politics

Summary: The 2024 general elections in Pakistan marked a major shift towards digital campaigning and administration of the electoral system. Political parties harnessed social media and digital platforms to connect with voters, making them essential tools for outreach. While traditional rallies continued, virtual gatherings extended the reach and impact of political discourse, ushering in a new era of digital political engagement in Pakistan.

Digital discord and its electoral discontents: In January, Google launched⁹⁸ a dedicated trends page in Pakistan to assist media reporting and help users gain access to consolidated information before and during the general elections. In the same month, TikTok inserted⁹⁹ improved integrity clauses in its Community Guidelines to counter the spread of misinformation, violence and hate speech during the general elections in Pakistan. In February, a report published¹⁰⁰ in Express Tribune noted that social media platforms were increasingly being used to exert influence in Pakistan’s political discourse and electoral campaigning. Another February report, published¹⁰¹ in Express Tribune, examined the complex relationship between Pakistan’s traditional political classes and social media users. The report argued that while political parties embrace these platforms for communication purposes, they often display ambivalence towards online users exposing political shortcomings of political parties.

Election spending: The same month, a report published¹⁰² in The News urged the need for regulation to mitigate the disparity in digital spending during the 2024 electoral cycle. The report argued that robust guidelines could safeguard electoral fairness in the digital age and curb excessive digital expenditure.

⁹⁸ Google launches elections search trends page in Pakistan. (2024, January 16). Express Tribune. <https://tribune.com.pk/story/2453417/google-launches-election-search-trends-page-in-pakistan>

⁹⁹ TikTok shares election integrity measures ahead of polls. (2024, January 24). Express Tribune. <https://tribune.com.pk/story/2454243/tiktok-shares-election-integrity-measures-ahead-of-polls>

¹⁰⁰ Shahzad, R. (2024). Social media: a tool of choice for campaigning. Express Tribune. <https://tribune.com.pk/epaper/news/Islamabad/2024-02-03/MDExYmU5Y2E3MTQ2NjAyMDkwZWY3M2Q4ZTM0NmE1NjQucG5n>

¹⁰¹ Tahir, N. (2024). The brave new digital world of Pakistani politics. Express Tribune. <https://tribune.com.pk/story/2457536/the-brave-new-digital-world-of-pakistani-politics>

¹⁰² Dad, N. (2024). Digital campaigns. The News. <https://e.thenews.com.pk/detail?id=278844>

Digital votes vs paper ballots: An April report published¹⁰³ in Dawn pushed for the adoption of electronic voting machines (EVMs) to counter the resource-intensive nature of traditional paper ballot production. The report estimated that over 2,170 tons of paper would have been required for printing ballot papers for the 2024 general elections, a 171 per cent increase compared to the 2018 electoral exercise.

B3b. Political parties and electoral expression

Summary: Politics in Pakistan during 2024 was characterized by enhanced use of digital technology and social media usage for campaigning and political discourse. This contributed to a heightened sense of polarization of the national political discourse in the lead up to the February general elections and post-election controversy over results. In this backdrop, the brash and angry rhetoric on social media in the aftermath of elections by parties rejecting results announced by the Election Commission of Pakistan raised issues of misinformation, disinformation and hate speech resulting in muscular government measures to ban X platform, frequent suspension or degradation of internet and telecom services, and arrests or legal cases against political activists and journalists for free speech. These measures raised questions about the quality of political rights and democracy in Pakistan.

Politics digitally thwarted: In January, the Pakistan Tehreek-i-Insaf (PTI) faced¹⁰⁴ a setback in its attempt to launch its manifesto and raise funds through a telethon, as social media platforms experienced a blackout across Pakistan. Subsequently, in the same month, the PTI called¹⁰⁵ on the Supreme Court of Pakistan (SCP) to take notice of the blocking of social media, terming it an attempt at subverting their constitutional rights as an independent political party. Another attempt was made to subvert PTI's attempt at organizing a virtual political event in January with internet services suspended¹⁰⁶, including access to YouTube, an hour before the event was scheduled. The same month, PTI employed¹⁰⁷ Facebook's 'Automated Responses' feature to launch an online messaging bot, informing voters about the assigned symbols of its newly independent candidates. Later in January, PTI asserted that its websites had been blocked¹⁰⁸ within Pakistan in the lead-up to the general elections, demanding an explanation from relevant authorities.

Censoring online politics: In February, the Committee to Protect Journalists (CPJ) urged¹⁰⁹ Pakistani authorities to safeguard press freedom, ensure journalists' safety, and provide unrestricted internet access for fair coverage of elections, including restoring access to the

¹⁰³ Ali, F. A. (2024). Polls & the environment. Dawn. <https://www.dawn.com/news/1826610>

¹⁰⁴ Junaidi, A. (2024). Internet outages hit PTI's bid to launch manifesto. Dawn. <https://www.dawn.com/news/1803983>

¹⁰⁵ Junaidi, A. (2024). PTI asks SC to take notice of Sunday's internet disruption. Dawn. <https://www.dawn.com/news/1804313>

¹⁰⁶ Ali, K, & Asad, M. (2024). Internet outage as PTI hosts another 'online event'. Dawn. <https://www.dawn.com/news/1807435>

¹⁰⁷ Siddiqui, A. (2024). How a messaging bot is helping PTI supporters. The News. <https://www.thenews.com.pk/print/1151692-how-a-messaging-bot-is-helping-pti-supporters>

¹⁰⁸ PTI's websites 'blocked' in Pakistan. (2024, January 26). Express Tribune. <https://tribune.com.pk/story/2454475/pti-websites-blocked-in-pakistan>

¹⁰⁹ Mahmood, F. (2024). Sanam Javed cautioned over media posts. Express Tribune. <https://tribune.com.pk/story/2480878/sanam-javed-cautioned-over-media-posts>

investigative news website FactFocus. In June, a report published¹¹⁰ in Dawn, warned against the implementation of a nationwide Chinese-style firewall system aimed at monitoring and blocking social media content critical of state institutions and censoring politics.

Women in politics: In July, the Islamabad High Court (IHC) granted¹¹¹ bail to PTI activist Sanam Javed while issuing a stern warning against the use of inappropriate language on social media. In August, a report published¹¹² in Dawn argued that women were likely to suffer disproportionately from state efforts to control the digital realm. The report observed that protests against rights violations in the backdrop of the elections may lead to increased digital surveillance and censorship, further restricting their political freedoms.

¹¹⁰ Nasir, A. (2024). Can the Great Wall stop PTI? Dawn. <https://www.dawn.com/news/1838781>

¹¹¹ Mahmood, F. (2024). Sanam Javed cautioned over media posts. Express Tribune. <https://tribune.com.pk/story/2480878/sanam-javed-cautioned-over-media-posts>

¹¹² Yusuf, Z. (2024). Digital gender gap. Dawn. <https://www.dawn.com/news/1850166#:~:text=The%20greatest%20threat%20to%20this,compared%20to%2047pc%20of%20men.>

B4. DIGITAL BUSINESS AND IT ECONOMY

Digitalization developments and trends in the business sector and the IT economy.

Summary: Fueled by increased global demand for information technology (IT) services and supportive government policies, 2024 marked a progressive year for Pakistan's IT sector. Enhanced government investments and partnerships with the private sector in infrastructure, coupled with a focus on skill development and streamlining digital payments, propelled the sector's growth including increased IT productivity and exports from Pakistan. Digital transactions and banking saw meteoric growth. The downside was that while facilitation of Pakistan-based freelancers – who earn over \$1 billion annually – improved but challenges remained in ensuring for them an optimal payments system. A key challenge for the IT challenge remained the frequently disrupted and degraded internet access and quality by the government for political reasons, severely hurting the national digital economy and adversely impacting business efficiency, viability and profitability.

B4a. IT potential and exports

Burgeoning IT exports: A January report published¹¹³ in Express Tribune highlighted a significant surge in Pakistan's IT exports. In December 2023, exports reached \$303 million, representing a 17 per cent increase and a 23 per cent year-on-year growth. In February, a report published¹¹⁴ in Express Tribune placed leading IT companies anticipating continued growth in Pakistan's IT and IT-enabled services exports, aiming to exceed \$3 billion by end of financial year 2023-2024. According to an August report¹¹⁵ published in Express Tribune, Pakistan's IT exports surged 34 per cent in July 2024 alone, reaching \$286 million. The consistent growth figures reflected the increased global demand for Pakistan's IT services. According to the Pakistan E-Commerce Industry Report^{xvi} 2024, released in December, the country's e-commerce revenue is expected to reach \$5 billion by end of 2024 with the industry expected to achieve a compound annual growth rate of 5.9% between 2024 and 2029, reaching \$6.7 billion revenues by the end of this period.

Investing in digital development: The federal government allocated¹¹⁶ Rs10 billion from provincial projects to fund the Digital Information Infrastructure Initiative (DIII) in March,

¹¹³ Haq, S. (2024). IT exports rise on fair policies. Express Tribune. <https://tribune.com.pk/story/2453593/it-exports-rise-on-fair-policies>

¹¹⁴ Khan, G. A. (2024). IT exports expected to exceed \$3b. Express Tribune. <https://tribune.com.pk/story/2456702/it-exports-expected-to-exceed-3b#:~:text=KARACHI%3A,enhancing%20their%20international%20market%20presence.>

¹¹⁵ ICT exports surge 33.6% in July. (2024, August 20). Express Tribune. <https://tribune.com.pk/epaper/news/Islamabad/2024-08-20/Y2YyYjNjZjA0M2YyMzQ2OTgxZjgzZWQ3MmY1OWI5ZGEuanBIZw>

¹¹⁶ Bhutta, Z. (2024). Govt to direct Rs10b from provincial projects. Express Tribune. <https://tribune.com.pk/story/2458187/govt-to-divert-rs10b-from-provincial-projects>

underscoring a commitment to national digital transformation agenda. In the same month, leading Pakistani companies participated and forged multiple partnerships¹¹⁷ with global counterparts at LEAP 2024, a premier technology event held in Riyadh. In March, the Special Investment Facilitation Committee (SIFC) approved the establishment¹¹⁸ of Pakistan's largest IT park. Following this decision, the Capital Development Authority (CDA) in Islamabad allocated¹¹⁹ a 3.3-acre site for this ambitious project.

B4b. IT infrastructure and development

Digital industry energizing up: In April, the Central Business District Punjab (CBD Punjab) partnered¹²⁰ with the China Machinery Engineering Corporation (CMEC) to develop Pakistan's 'largest IT city', the Nawaz Sharif IT City in Lahore. In April, the 24th ITCN Asia conference – supported by Federal Ministry of IT and Telecom, SIFC, Pakistan Software Export Board (PSEB) and Pakistan Software Houses Association (P@SHA), concluded successfully in Lahore, generating¹²¹ over \$500 million in business deals for Pakistan's IT companies. Ambassador of the United States to Pakistan Donald Blome, in May, expressed¹²² interest in expanding IT cooperation with Pakistan, recognizing its potential for national digital growth. In June, a collaboration between the Special Communications Organizations (SCO) and Agha Khan Foundation (AKF-Pakistan) resulted in the inauguration¹²³ of a Special Technology Park (STP) in Hunza.

Tech zoning: In August, the Rawalpindi Municipal Corporation (RMC) became the first municipal body in Punjab to establish¹²⁴ an IT hub, aiming to train and employ 1,200 young people in the IT sector. In the same month, the Special Technology Zones Authority (STZA) announced¹²⁵ the establishment of four new special technology zones. This initiative, with Rs30 billion in investment, aimed to create 50,000 jobs and increase IT exports additionally by \$350 million annually.

B4c. Digital payments and banking

Most payments in Pakistan now digital: In October, a Dawn report¹²⁶ revealed that digital

¹¹⁷ Pakistan inks host of deals at tech event. (2024, March 8). Express Tribune. <https://tribune.com.pk/story/2458723/pakistan-inks-host-of-deals-at-tech-event>

¹¹⁸ SIFC approves setting up of largest IT park. (2024, March 26). Express Tribune. <https://tribune.com.pk/story/2460518/sifc-approves-setting-up-of-largest-it-park>

¹¹⁹ CDA to set up 'biggest IT park'. (2024, March 14). The News. <https://www.thenews.com.pk/print/1167983-cda-to-set-up-biggest-it-park>

¹²⁰ Nawaz Sharif IT City to be set up. (2024, April 9). The News. <https://www.thenews.com.pk/print/1177000-nawaz-sharif-it-city-to-be-set-up>

¹²¹ Pakistan's IT sector secures \$500 million in investment pledges at tech expo. (2024, April 21). The News. <https://www.thenews.com.pk/print/1180564-pakistan-s-it-sector-secures-500-million-in-investment-pledges-at-tech-expo>

¹²² Pakistan, US agree to boost cooperation in IT, telecom sector. (2024, May 15). Pakistan Today. <https://www.pakistantoday.com.pk/2024/05/15/pakistan-us-agree-to-boost-cooperation-in-it-telecom-sector/>

¹²³ Nagri, J. (2024). Prince Rahim opens software park in Hunza. Dawn. <https://www.dawn.com/news/1838738#:~:text=GILGIT%3A%20Prince%20Rahim%20Agha%20Khan,sustainable%20development%20of%20Gilgit%20Baltistan.>

¹²⁴ Mirza, J. (2024). RMC set to launch Punjab's first freelance IT hub. Express Tribune. [https://tribune.com.pk/story/2487895/rmc-set-to-launch-punjab-s-first-freelance-it-hub#:~:text=The%20Rawalpindi%20Municipal%20Corporation%20\(RMC,women%20in%20the%20IT%20sector.](https://tribune.com.pk/story/2487895/rmc-set-to-launch-punjab-s-first-freelance-it-hub#:~:text=The%20Rawalpindi%20Municipal%20Corporation%20(RMC,women%20in%20the%20IT%20sector.)

¹²⁵ Siddiqui, S. (2024). 4 tech zones set up amid increased surveillance. Express Tribune. <https://tribune.com.pk/story/2488356/4-tech-zones-set-up-amid-increased-surveillance#:~:text=In%20a%20statement%20issued%20on,Smart%20Technology%20Zone%20in%20Rawalpindi.>

¹²⁶ Iqbal, S. (2024). Digital payments to wrap up paper-based banking. Dawn. <https://www.dawn.com/news/1864658>

payments accounted for 84 per cent of all transactions in Pakistan, signaling a shift away from traditional banking methods. This progress was also highlighted in the State Bank of Pakistan's (SBP) annual report for 2023-2024. In March, according¹²⁷ to the State Bank of Pakistan (SBP), mobile and internet banking remained the preferred digital transaction methods in Pakistan, accounting for half of all digital transactions in the second quarter of fiscal year 2023-2024.

Going phygital: In a September report¹²⁸ in Express Tribune stated that consumers were increasingly turning to installment plans to afford home appliances. This “phygital” approach, facilitated by several online marketplaces, offered a convenient solution for purchasing needed items. In June, the Federal Bureau of Revenue (FBR) warned¹²⁹ businesses against refusing credit or debit card payments, threatening strict action, including sealing of premises. In January, a report published¹³⁰ in Express Tribune urged the federal government to incentivize digital payments to formalize the economy, reducing reliance on cash payments.

Banking on digital-only: In September, Express Tribune¹³¹ reported Pakistan was poised to launch digital banks in 2025, with at least one financial entity nearing operational readiness. Successful small-scale trials could pave way for full-scale digital retail banking operations.

B4d. Freelance economy

Forward movement for freelancers: In January, the federal government launched¹³² a pilot project to enable 10,000 online freelancers to receive payments through PayPal. This initiative, facilitated by a partnership¹³³ with third-party payment gateway Payoneer, was aimed to support the growth of Pakistan's freelance industry. In May, Bank Islami (BI) opened¹³⁴ an exclusive Priority Banking Lounge (PBL) for digital freelancers and information technology exporters, offering a free workspace for collaboration and networking. In October, the State Bank of Pakistan (SBP) announced¹³⁵ a rupee-based payment gateway with Arab countries through the integration of Raast and Buna platforms. This move would facilitate cross-border transactions and strengthen regional economic ties.

Setbacks for freelancers: In August, Fiverr, the world's largest online freelance marketplace,

¹²⁷ Zaidi, E. (2024). SBP payments system review: Mobile, internet banking preferred mode of digital transactions. The News. <https://www.thenews.com.pk/print/1167990-sbp-payments-system-review-mobile-internet-banking-preferred-mode-of-digital-transactions>

¹²⁸ Khan, A. G. (2024). Phygital system gains popularity. Express Tribune. <https://tribune.com.pk/story/2498743/phygital-system-gains-popularity#:~:text=KARACHI%3A,offers%20products%20on%20easy%20instalments>.

¹²⁹ FBR chief assures Senate panel: Failure to accept credit, debit cards to result in closure of businesses. (2024, June 15). The News. <https://www.thenews.com.pk/print/1200656-fbr-chief-assures-senate-panel-failure-to-accept-credit-debit-cards-to-result-in-closure-of-business>

¹³⁰ Telecom industry for promoting digitalization. (2024, January 4). Express Tribune. <https://tribune.com.pk/story/2452112/telecom-industry-for-promoting-digitalisation>

¹³¹ Siddiqui, S. (2024). Will digital banking be successful in Pakistan?. Express Tribune. <https://tribune.com.pk/story/2499564/will-digital-banking-be-successful-in-pakistan#:~:text=KARACHI%3A,licensing%20in%20the%20coming%20weeks>.

¹³² PayPal payments for freelancers from Feb. (2024, January 12). Express Tribune. <https://tribune.com.pk/story/2453003/paypal-payments-for-freelancers-from-feb>

¹³³ Haider, M. (2024). Freelancers to receive PayPal payments through third-party firm. The News. <https://www.thenews.com.pk/print/1145805-freelancers-to-receive-paypal-payments-through-third-party-firm>

¹³⁴ BankIslami launches priority banking lounge for freelancers, IT exporters. (2024, May 16). The News. <https://www.thenews.com.pk/print/1189637-bankislami-launches-priority-banking-lounge-for-freelancers-it-exporters>

¹³⁵ Siddiqui, S. (2024). Cross-border payments go live. Express Tribune. [https://tribune.com.pk/story/2503849/cross-border-payments-go-live#:~:text=State%20Bank%20of%20Pakistan%20\(SBP,Arab%20Monetary%20Fund's%20Buna%20platform](https://tribune.com.pk/story/2503849/cross-border-payments-go-live#:~:text=State%20Bank%20of%20Pakistan%20(SBP,Arab%20Monetary%20Fund's%20Buna%20platform).

temporarily disabled¹³⁶ the accounts of several Pakistani freelancers due to internet disruptions, hindering their ability to meet deadlines. In the same month, a report¹³⁷ published in Dawn warned that ongoing internet disruptions were negatively impacting various sectors, including call centers, freelancing, software development, and digital marketing. Such disruptions contradicted the federal government's stated goal of attracting foreign remittances.

B4e. Impact of degraded internet and telecom on businesses and digital economy

Internet disruptions hurting businesses: In January, the Telecom Operators Association (TOA) articulated concerns¹³⁸ over internet throttling and the blocking of social media platforms in Pakistan, cautioning against irregular access to information for citizens. In February, a Dawn report¹³⁹ highlighted the disruption caused by internet suspensions, particularly impacting supply chains and data-driven businesses such as logistics and ride-hailing. An Express Tribune report¹⁴⁰, published in March, emphasized the adverse impact of the X ban on Pakistani businesses, particularly those reliant on social media for marketing and customer engagement. In March, the Securities and Exchange Commission of Pakistan (SECP) issued guidelines¹⁴¹ to regulate digital lending practices by non-banking financial companies (NBFCs). The guidelines were focused on responsible online advertising and call center management.

Firewalling business profitability: In August, the Asia Internet Coalition (AIC) warned¹⁴² that the federal government's proposed data localization policies could negatively impact Pakistan's digital economy. An Express Tribune report noted numerous businesses and individuals criticizing¹⁴³ the federal government's decision to install a firewall, which has led to widespread internet disruptions and economic losses estimated at \$500 million. Moreover, the Pakistan Business Council (PBC) warned¹⁴⁴ that internet disruptions were hindering operations of multinational companies' back-offices in Pakistan, potentially damaging the country's business reputation. Later in August, a report¹⁴⁵ published in The News stated that internet shutdowns in 2023 inflicted significant economic losses on Pakistan, costing over Rs65 billion and impacting millions of people. In July, IT professionals

¹³⁶ Malik, A. M & M, Muskaan. (2024). Pakistani freelancers marked 'unavailable' on Fiverr. Dawn. <https://www.dawn.com/news/1852561>

¹³⁷ Akhtar, A. S. (2024). Freelancers for ruin. Dawn. <https://www.dawn.com/news/1852567>

¹³⁸ Bhutta, Z. (2024). Telecom operators decry social media blackout. Express Tribune. <https://tribune.com.pk/story/2452611/telecom-operators-decry-social-media-blackout>

¹³⁹ Ali, K. (2024). Suspension of mobile phone service causes loss to data-based businesses. Dawn. <https://www.dawn.com/news/1812499/suspension-of-mobile-phone-service-causes-loss-to-data-based-businesses#:~:text=The%20suspension%20of%20mobile%20data,notably%20the%20JazzCash%20and%20Easypaisa.>

¹⁴⁰ X factor: Twitter ban hits businesses, news in Pakistan. (2024, March 9). Express Tribune. <https://tribune.com.pk/story/2458878/x-factor-twitter-ban-hits-businesses-news-in-pakistan>

¹⁴¹ Ali, K. (2024). SECP issues call center guidelines for digital lenders. Dawn. <https://www.dawn.com/news/1822409>

¹⁴² Ali, K. (2024). IT ministry coy as Asia Internet Coalition raises red flags on govt's data localization plans. Dawn. <https://www.dawn.com/news/1849540>

¹⁴³ Bhutta, Z. (2024). Uproar as 'firewall' sings IT businesses. Express Tribune. <https://tribune.com.pk/story/2488470/uproar-as-firewall-singes-it-businesses#:~:text=ISLAMABAD%3A,the%20disruption%20across%20the%20country.>

¹⁴⁴ MNC's local offices beset by internet woes, says Pakistan Business Council official. (2024, August 18). Dawn. <https://www.dawn.com/news/1853018#:~:text=KARACHI%3A%20The%20back%20offices%20of,Malik%20told%20Dawn%20on%20Saturday.>

¹⁴⁵ Abbasi, K. (2024). Internet shutdown caused Rs65bn loss to Pakistan in 2023. The News. <https://www.thenews.com.pk/print/1224269-internet-shutdown-caused-rs65bn-loss-to-pakistan-in-2023>

criticized¹⁴⁶ the federal government’s decision to impose taxes on salaries and computer hardware in the 2024-25 federal budget. They argued that such measures hinder the growth of the IT sector and called for tax exemptions.

Intellectual property ranking: Also in July, Pakistan’s intellectual property ranking (IPR) improved¹⁴⁷ significantly, rising from 119th in 2016 to 88th in 2023. This improvement was also reflected in the Global Innovation Index Report 2023, acknowledging Pakistan’s progress in IPR compliance.

¹⁴⁶ Khan, G. A. (2024). IT professionals decry unfair tax policies. Express Tribune. <https://tribune.com.pk/story/2476422/it-professionals-decry-unfair-tax-policies>

¹⁴⁷ Global Innovation Index: Pakistan’s Intellectual Property ranking improved from 119 to 88. (2024, July 8). The News. <https://www.thenews.com.pk/print/1207486-global-innovation-index-pakistan-s-intellectual-property-ranking-improved-from-119-to-88>

B5. DIGITAL CRIME AND JUSTICE

Digitalization developments and trends in the criminal, legal and judicial sectors.

Summary: In 2024, Pakistan’s legal system, including courts and executive bodies, saw some digital reforms including acceptance of digital evidence in the justice process, and improved judicial efficiency. Courts implemented measures to modernize the judicial process, while tackling issues like cybercrime, pornography and online harassment, reflecting efforts to balance legal oversight with technological progress.

B5a. Cyber Crime and Prosecution

Protecting children and women online: In January, the Senate Standing Committee on Interior directed¹⁴⁸ authorities to take steps to curb access to harmful online content, including pornography, to protect children. In March, the National Commission on the Rights of Child (NCRC) called¹⁴⁹ for stronger government, judiciary, and civil society efforts to combat the rising issue of online child harassment. In August, a Karachi court sentenced¹⁵⁰ an individual to nine years in prison for sharing obscene videos of a female content creator on WhatsApp, violating her constitutional right to dignity and modesty.

Cybercrime control: In April, the Punjab home department drafted¹⁵¹ a new Cyber Crime Control, Prevention and Punishment Act, 2024. In May, Punjab Chief Minister Maryam Nawaz directed¹⁵² authorities to strengthen cybersecurity measures in provincial prisons to prevent cyberattacks and data breaches.

Cybercrime investigation: In July, the federal government established¹⁵³ the National Cyber Crime Investigation Agency (NCCIA), effectively replacing the Federal Investigation Agency’s (FIA) Cyber Crime Wing (CCW), although it raised questions about the intent behind it in the backdrop of crackdown on online dissent. In October, it was reported¹⁵⁴ that the NCCIA faced an uncertain future as the federal government had repealed the rules governing its operations. The authority’s purpose and role, therefore, had become unclear. In September,

¹⁴⁸ Abbasi, K. (2024). Senate body calls for banning websites exposing children to pornography. Dawn. <https://www.dawn.com/news/1803510>

¹⁴⁹ Ali, K. (2024). Govt, civil society warned of growing child online harassment cases. Dawn. <https://www.dawn.com/news/1820853>

¹⁵⁰ Abdullah, S. (2024). Man in Karachi sentenced to nine years in prison for sharing woman’s obscene videos on WhatsApp. Dawn. <https://www.dawn.com/news/1852758>

¹⁵¹ Cybercrime control law draft ready. (2024, April 20). Dawn. <https://www.dawn.com/news/1828486>

¹⁵² Maryam orders making prisons cyber security foolproof. (2024, May 23). <https://www.thenews.com.pk/print/1192265-maryam-orders-making-prisons-cyber-security-foolproof>

¹⁵³ Momand, A. (2024). Govt notifies cybercrime investigation agency to tackle Peca offences. Dawn. <https://www.dawn.com/news/1831222>

¹⁵⁴ Countering cybercrime. (2024, October 25). Dawn. <https://www.dawn.com/news/1867513>

incarcerated former prime minister Imran Khan officially joined¹⁵⁵ the Federal Investigation Agency's (FIA) cybercrime investigation regarding a threatening post from his official X account. In December, the federal cabinet approved^{xvii} amendments to the Criminal Civil Code to allow greater use of digital technology in registration of FIRs and investigation and prosecution of cases.

Cyber prosecution: In September, the Gilgit-Baltistan Awami Action Committee (GBAAC) protested¹⁵⁶ against the misuse of anti-terrorism and cybercrime laws to suppress dissent and restrict freedom of expression. In October, a special court in Gujjar Khan sentenced¹⁵⁷ a man to death and life imprisonment on charges of blasphemy and cybercrime. This case underscored the increasing use of cybercrime laws in conjunction with blasphemy laws.

B5c. Cyber Justice and Technology

While hearing appeals from PTI leaders in May, the Islamabad High Court (IHC) questioned¹⁵⁸ the authenticity and credibility of electronic evidence produced before the court in the controversial cipher case. In the same month, the Supreme Court of Pakistan (SCP) allowed¹⁵⁹ former prime minister Imran Khan to join court proceedings via video link in the National Accountability Bureau (NAB) law amendments case. In July, the Lahore High Court (LHC) unveiled¹⁶⁰ a judicial reform package aimed at improving public service and efficiency, including the introduction of electronic filing of petitions. The same month, the Islamabad High Court (IHC) lifted¹⁶¹ its restriction, allowing cellular companies to share data concerning suspects with police authorities for post-crime investigations, clearing a backlog of inquiries halted by a previous order of the same court. In July, the same month, the Lahore High Court (LHC) raised concerns about the potential abuse of digital records within the Punjab Police department, highlighting the risks to the rights of both complainants and accused.

¹⁵⁵ Anjum, S. (2024). Imran joins FIA cybercrime probe. The News. <https://www.thenews.com.pk/print/1230638-imran-joins-fia-cybercrime-probe>

¹⁵⁶ Nagri, J. (2024). Protest in GB over 'misuse' of ATA, cybercrime laws. Dawn. <https://www.dawn.com/news/1856556>

¹⁵⁷ Asad, M. (2024). Death penalty awarded to Gujjar Khan suspect for blasphemy, cybercrime. Dawn. <https://www.dawn.com/news/1864874>

¹⁵⁸ Mahmood, F. (2024). IHC questions credibility of e-evidence in cipher case. Express Tribune. <https://tribune.com.pk/story/2465777/ihc-questions-credibility-of-e-evidence-in-cipher-case>

¹⁵⁹ SC allows Imran to appear in court via video link. (2024, May 14). Express Tribune. <https://tribune.com.pk/story/2466543/sc-allows-imran-to-appear-in-court-via-video-link>

¹⁶⁰ LHC announces raft of reforms to expedite service delivery. (2024, July 27). Dawn. <https://www.dawn.com/news/1842193/lhc-announces-raft-of-reforms-to-expedite-service-delivery#:~:text=LAHORE%3A%20The%20Lahore%20High%20Court,incloding%20e%2Dfiling%20of%20petitions.>

¹⁶¹ Asad, M. (2024). Telecom operators allowed to share suspects' data with police. Dawn. <https://www.dawn.com/news/1843310#:~:text=ISLAMABAD%3A%20The%20Islamabad%20High%20Court,facilitating%20law%20enforcement%20agencies%20with>

Chapter 4

Section C: PRACTICES: Developments in the Digital Sector



C1. INTERNET

Developments and trends related to open internet, including access, efficiency, connectivity and services.

Summary: The year 2024 in Pakistan was characterized by repeated disruptions of the internet connectivity landscape and enforced degradation of the quality of internet in terms of speed. These worsened after a digital firewall was trialed and installed. These disruptions and throttling, often imposed without prior notice, had a significant adverse impact on access to information, freedom of expression, business and economic operations and civic engagement. Many stakeholders were up in arms and the issue went to courts on multiple occasions with the authorities put on notice. Internet slowdown and shutdowns also had an economic downside: every hour of internet outage cost Pakistan in \$1 million in lost business.

C1a. Internet access

Shut down: In February, the caretaker federal government suggested¹⁶² it would consider suspending internet services during general elections if requested by a province or district due to security concerns. The same month, the Pakistan Telecommunication Authority (PTA) denied¹⁶³ rumors of federal instructions to restrict mobile and internet services, assuring that services would seamlessly be operational on election day. Despite these assurances and without prior notice, the federal government imposed¹⁶⁴ cellular and internet services shutdown for most hours of the day nationwide on election day. The suspension caused major difficulties for voters trying to access online information about their polling stations.

In July, citing security concerns, the Balochistan government suspended¹⁶⁵ mobile and internet connectivity in several districts for four days during Muharram. In August, Pakistan Telecommunication Company Limited (PTCL) and Ufone subscribers experienced widespread internet disruptions¹⁶⁶, with nationwide reports of outages and inconsistent connectivity. In September, internet services were suspended¹⁶⁷ in Mianwali and nearby towns following an incident in Kalabagh that left two dead and over a dozen injured, sparked by tensions between local groups. In November, PTA suspended¹⁶⁸ internet and mobile services in several Balochistan districts to ensure public safety following terrorist attacks in Balochistan

¹⁶² Tanoli, I. (2024). Govt hints at shutting down internet over 'security' issue. Dawn. <https://www.dawn.com/news/1811775>

¹⁶³ No govt instructions to block internet, says PTA. (2024, February 8). Dawn. <https://www.dawn.com/news/1812132>

¹⁶⁴ Khan, I. A. (2024). Mobile network suspension mars polls across country. Dawn. <https://www.dawn.com/news/1812594#:~:text=ISLAMABAD%3A%20The%20caretaker%20government%20suspended,assurances%20of%20uninterrupted%20internet%20access.>

¹⁶⁵ Shahid, S. (2024). Cellphone, internet services in Quetta suspended till Ashura. Dawn. <https://www.dawn.com/news/1845820>

¹⁶⁶ Ali, K & Raza, S. I. (2024). Nationwide internet disruption hits PTCL users. Dawn. <https://www.dawn.com/news/1849352>

¹⁶⁷ Internet suspended in Mianwali. (2024, September 1). Express Tribune. <https://tribune.com.pk/story/2492627/internet-suspended-in-mianwali-1>

¹⁶⁸ Shahid, S. (2024). PTA suspends mobile, internet services in parts of Balochistan. Dawn. <https://www.dawn.com/news/1872687#:~:text=QUETTA%3A%20The%20Pakistan%20Telecommunication%20Authority,the%20province%20and%20Khyber%20Pakhtunkhwa.>

and Khyber Pakhtunkhwa. In late November and early December, internet and mobile services remained suspended for many days in Kurram tribal district in Khyber Pakhtunkhwa in the backdrop of simmering sectarian violence that killed dozens of people.

Judicial responses: In January, the Sindh High Court (SHC) ordered¹⁶⁹ the federal government and PTA to ensure uninterrupted internet access until the general elections scheduled in February. In February, the Sindh High Court (SHC) criticized¹⁷⁰ the suspension of internet and mobile services on election day, noting that the elections had been tainted due to it. In August, the Lahore High Court (LHC) rebuked¹⁷¹ the state counsel for his ‘lack of seriousness’ over his statements about the cause of the nationwide internet disruptions, warning that it would issue an adverse order on the matter.

Protesting disruptions: In January, the Pakistan Press Foundation (PPF) criticized¹⁷² frequent internet and social media shutdowns often coinciding with virtual events held by PTI, leading many to question the motives behind these outages. In February, the US State Department expressed¹⁷³ concern over restrictions on internet and mobile access in Pakistan on polling day. In August, the federal government’s claim that internet disruptions were due to increased virtual private network (VPN) usage sparked a backlash¹⁷⁴ from digital rights advocates, businesses and information technology (IT) experts. In November, the Information Technology and Innovation Foundation (ITIF) warned¹⁷⁵ that while internet restrictions in Pakistan may offer short-term political gain, they could lead to long-term economic instability due to high costs of shutdowns. In the same month, a Dawn report revealed¹⁷⁶ that internet disruptions had plagued residents of Karachi, disrupting daily activities and causing financial losses for those reliant on online services. The Pakistan Software Houses Association (P@SHA) said in December that for every hour of internet outage or disruption, the country’s IT industry sustained a loss^{xviii} of over \$1 million for the whole sector, including export businesses.

Connectivity potential: In January, the federal government announced¹⁷⁷ plans to improve internet connectivity by facilitating the use of low-orbit satellite technology, potentially paving the way for companies like Starlink and Web1 to operate in Pakistan. In June, the

¹⁶⁹ Tanoli, I. (2024). SHC instructs govt, PTA to ensure uninterrupted internet access till election day. Dawn. <https://www.dawn.com/news/1808252>

¹⁷⁰ Khurshid, J. (2024). SHC takes exception to internet suspension on polling day. The News. <https://www.thenews.com.pk/print/1160249-shc-takes-exception-to-internet-suspension-on-polling-day>

¹⁷¹ Sheikh, W. A & Asad, M. (2024). LHC questions govt seriousness in fixing internet disruptions. Dawn. <https://www.dawn.com/news/1852799>

¹⁷² Of internet outages and bizarre excuses. (2024, January 26). Pakistan Press Foundation. <https://www.pakistanpressfoundation.org/of-internet-outages-and-bizarre-excuses/>

¹⁷³ Iqbal, A. (2024). Alarmed by internet restrictions, US slams poll-related violence. Dawn. <https://www.dawn.com/news/1812588#:~:text=WASHINGTON%3A%20The%20US%20State%20Department,Pakistan%20on%20the%20polling%20day.>

¹⁷⁴ Shehzad, R. (2024). Minister draws flak for ‘weird’ explanation on internet disruptions. Express Tribune. <https://tribune.com.pk/story/2489180/minister-draws-flak-for-weird-explanation>

¹⁷⁵ Rana, S. (2024). Internet curbs may cost Pakistan dearly. Express Tribune. <https://tribune.com.pk/story/2509738/internet-curbs-may-cost-pakistan-dearly>

¹⁷⁶ Fatimah, A. (2024). Inter disruptions affect routine life, causing misery to Karachiites. Dawn. <https://www.dawn.com/news/1874815#:~:text=Internet%20disruptions%20affect%20routine%20life%2C%20causing%20misery%20to%20Karachiites,-Aleezeh%20Fatimah%20Published&text=KARACHI%3A%20Like%20other%20parts%20of,those%20dependent%20on%20online%20services.>

¹⁷⁷ Haider, M. (2024). Starlink, Web1 may come to Pakistan as national policy gets nod. The News. <https://www.thenews.com.pk/print/1145218-starlink-web1-may-come-to-pakistan-as-national-policy-gets-nod>

PTCL, in collaboration with Huawei, conducted¹⁷⁸ Pakistan's first trial of Symmetric 50G-PON technology, laying the groundwork for advanced fiber-optic broadband services.

C1b. Internet quality and efficiency

Bandwidth bottlenecks. In 2024, Pakistan was ranked^{xix} among the lowest 12% of countries globally for both mobile and broadband internet speeds, according to the Speedtest Global Index released in December. The country was ranked 100th out of 111 countries for mobile internet speeds and 141st out of 158 countries for broadband speeds. According to the index, Pakistan's average mobile download speed was recorded at 7.85 mbps while the median mobile download speed stood at 19.59 mbps. The median broadband download speed was reported at 15.52 mbps. These speeds are among the lowest globally.

In July, the trial implementation¹⁷⁹ of a state-sponsored digital firewall led to nationwide internet slowdowns. While the federal government termed it a temporary measure, concerns arose about its potential impact on internet-reliant businesses and digital freedoms. In August, the Wireless and Internet Service Providers Association of Pakistan (WISPAP) blamed¹⁸⁰ the federal government's increased monitoring of internet traffic for a nationwide slowdown of online services. In response to a petition filed in August, the Islamabad High Court (IHC) issued¹⁸¹ notices to government functionaries to explain deteriorating internet speeds in Pakistan.

In August, telecommunication operators wrote¹⁸² to Prime Minister Shehbaz Sharif, urging action to resolve internet slowdown issues. In their letter, they warned that the sector could incur an annual loss of Rs12 billion if such issues persist. The same month, PTA attributed¹⁸³ the internet slowdown issue to faults with the SMW4 and AAE-1 undersea cables connecting Pakistan internationally. In September, the federal government told¹⁸⁴ the National Assembly it was aiming to restore normal internet speeds by fixing faulty undersea connectivity cables within a one month period. In November, PTA announced¹⁸⁵ the restoration of faulty international cables and uninterrupted nationwide internet services. The undersea fix was claimed to resolve an earlier bandwidth shortfall of 1,750 Gbps.

¹⁷⁸ Pakistan conducts first Symmetric 50G-PON fiber-optic internet trial. (2024, June 21). Dawn. <https://www.dawn.com/news/1840961>

¹⁷⁹ Cheema, U. (2024). Trial of firewall causing slowdown of internet. The News. <https://www.thenews.com.pk/print/1213063-trial-of-firewall-causing-slowdown-of-internet>

¹⁸⁰ Shahid, J. (2024). Heightened surveillance blamed for cyber slowdown. Dawn. <https://www.dawn.com/news/1852378>

¹⁸¹ Asad, M. (2024). IHC seeks govt input on net slowdown case. Dawn. <https://www.dawn.com/news/1853685>

¹⁸² Chaudhry, S. (2024). Telecom operators write to PM over internet crisis. The News. <https://www.thenews.com.pk/print/1222895-telecom-operators-write-to-pm-over-internet-crisis>

¹⁸³ PTA blames slow internet on submarine cables fault. (2024, August 29). The News. <https://www.thenews.com.pk/print/1224926-pta-blames-slow-internet-on-submarine-cables-fault>

¹⁸⁴ Internet disruptions to be fixed by month-end. (2024, September 7). The News. <https://www.thenews.com.pk/print/1227852-internet-disruptions-to-be-fixed-by-month-end-na-told>

¹⁸⁵ PTA announces complete restoration of internet services across Pakistan. (2024, November 1). Express Tribune. <https://tribune.com.pk/story/2506551/pta-announces-complete-restoration-of-internet-services-across-pakistan>

C2. TELECOM

Developments and trends related to telecommunications industry and services.

C1a. Telecom policies and regulations

Summary: In 2024, Pakistan's telecommunications sector faced a turbulent year, with plans for a 5G rollout facing frustrating delays and infrastructure concerns. Amid legal and regulatory challenges, debates intensified over internet access and service disruptions that affected the large community of mobile internet users.

Ready for 5G but not ready enough: In February, the caretaker federal government announced¹⁸⁶ plans to launch 5G services in Pakistan in 2024, accompanied by the auction of an additional 330 megahertz of spectrum bandwidth. In May, Huawei hosted¹⁸⁷ a Digital Week event in Islamabad to highlight its latest technologies and 5G service adoption across Pakistan. The same month, a Dawn report predicted¹⁸⁸ a potential delay in the launch of 5G services in Pakistan due to ongoing court cases. The bandwidth spectrum auction, already postponed by several years, was facing similar setbacks. In December, PTA in its Annual Report 2024, said^{xx} bridging the digital divide constitutes a significant challenge in the rollout of 5G in Pakistan. It said while urban areas may quickly benefit from the advanced infrastructure, rural and remote regions risk being left behind due to high costs and logistic hurdles of extending 5G to sparsely populated areas, adding that the availability of 5G handsets is also a barrier to widespread 5G adoption.

In September, PTA received¹⁸⁹ five proposals from international consultants to manage the 5G spectrum auction, set to conclude within the 2024-2025 fiscal year. However, industry stakeholders expressed worry about the auction's timing, questioning whether current telecommunication infrastructure was ready for a 5G rollout program. A Pakistan Today report¹⁹⁰, published in the same month, opined that Pakistan was ready to embrace 5G connectivity regardless of its influence in the global connectivity market. Concurrently, the report also urged that PTA must also consider 6G connectivity infrastructure development to drive future IT exports. In December, PTA said the Telecom Equipment Standards Regulations 2024 had been vetted by the federal Ministry of Law and will be presented for approval to the Economic Committee of the Cabinet (ECC).

Telecom bright spots: In December 2024, the annual PTA Report 2024 was launched

¹⁸⁶ Zaafir, M. S. (2024). 5G services to be launched by July-August. The News. <https://www.thenews.com.pk/print/1159162-5g-services-to-be-launched-by-july-august>

¹⁸⁷ Bhutta, Z. (2024). Pakistan requires key infrastructure to launch 5G. Express Tribune. <https://tribune.com.pk/story/2464687/pakistan-requires-key-infrastructure-to-launch-5g>

¹⁸⁸ Ali, K. (2024). Litigation may further delay launch of 5G services. Dawn. <https://www.dawn.com/news/1836537>

¹⁸⁹ Ali, K. (2024). PTA gets five proposals for 5G spectrum auction. Dawn. <https://www.dawn.com/news/1856606>

¹⁹⁰ The coming of 5G. (2024, September 4). Pakistan Today. <https://www.pakistantoday.com.pk/2024/09/04/the-coming-of-5g/>

indicating several bright spots in the domain during the year. These including the following:

- Over 91% of the country's population has access to cellular services
- Telecom coverage in Azad Jammu and Kashmir (AJK) and Gilgit-Baltistan (GB) has reached 100%
- Broadband subscribers increased from 127.6 million in June 2023 to 142.3 million in September 2024.
- Average internet speeds in Pakistan were up by 28% - from 15.65mbps to 20.02mbps.
- Telecom sector revenues reached a historic high of Rs955 billion in fiscal 2023-24.
- Average Revenue Per User (RPU) of telcos climbed to Rs302 per month in April-June 2024.
- Pakistan's Global Cybersecurity Index 2024 ranking went up from 79th to the top 40.
- During 2023-24, PTA received 191,514 consumer complaints related to telecom services of which 99% were resolved
- During 2023-24, PTA blocked or recycled over 5.8 million inactive SIMs.

Digital blackout: In May, the Sindh High Court (SHC) directed¹⁹¹ PTA and the Ministry of Interior to submit comments on petitions challenging the suspension of internet services, and the ban on social media platform X, on election day. In response to these directions, PTA acknowledged¹⁹² before the court that cellular internet services were suspended nationwide under the directives of the Ministry of Interior. In April, as 21 national and provincial seats were set to go to by-polls, the Ministry of Interior authorized¹⁹³ the suspension of mobile internet services in 13 districts of Punjab citing law and order concerns. The same month, the United Nations Development Program (UNDP)-sponsored Digital Development Index (DDI) report¹⁹⁴ revealed that more than half of Pakistan's population lacked reliable internet access.

Telecom troubles: In January, the federal government established¹⁹⁵ the Telecommunication Appellate Tribunal (TAT), a specialized three-member body tasked to address legal matters within Pakistan's telecommunication sector. In July, the Ministry of Information Technology and Telecommunication reversed¹⁹⁶ its initial notification that had granted concessions to Long Distance International (LDI) companies regarding recovery of unpaid dues. In September, PTA alerted¹⁹⁷ the Senate about disruptions to Pakistan's cellular networks if the licenses of LDI companies were not renewed. Later in the same month, the Minister of Information Technology and Telecommunication blamed infrastructure constraints and a lack of sustainable investment for the industry's troubles and disruptive internet connectivity in Pakistan.

¹⁹¹ Khurshid, J. (2024). Country cannot be run by suspending internet, phone services: SHC. The News. <https://www.thenews.com.pk/print/1164931-country-cannot-be-run-by-suspending-internet-phone-services-shc>

¹⁹² Tanoli, I. (2024). No network shutdown ordered after polling day, says PTA. Dawn. <https://www.dawn.com/news/1819511#:~:text=KARACHI%3A%20The%20Pakistan%20Telecommunication%20Authority,Feb%208%2C%20the%20polling%20day.>

¹⁹³ Malik, M & Khan, I. A. (2024). Army deployed for by-election security. Dawn. <https://www.dawn.com/news/1828711>

¹⁹⁴ Junaidi, I. (2024). 'Over half of Pakistan does not have access to internet'. Dawn. <https://www.dawn.com/news/1829281>

¹⁹⁵ Ali, K. (2024). Govt establishes appellate tribunal for telecom sector. Dawn. <https://www.dawn.com/news/1803337#:~:text=The%20tribunal%20was%20established%20under,the%20tribunal%2C%20within%20one%20month.>

¹⁹⁶ Chaudhry, S. (2024). Unpaid dues: IT ministry withdraws letter giving concessions to LDI firms. The News. <https://www.thenews.com.pk/print/1212762-unpaid-dues-it-ministry-withdraws-letter-giving-concessions-to-ldi-firms>

¹⁹⁷ LDI license renewal delays to disrupt cellphone network. (2024, September 10). The News. <https://www.thenews.com.pk/print/1228913-ldi-licence-renewal-delays-to-disrupt-cellphone-network>

Private meets public: In September, Prime Minister Shehbaz Sharif greenlit¹⁹⁸ the creation of a selection board to hire the Secretary of the Information Technology and Telecommunication Division through an open market process. Later in the same month, the selection board approved¹⁹⁹ the appointment of Pakistan’s first private-sector professional to a Grade-22 position to spearhead the Information Technology and Telecommunication Division.

C2b. Phone production in Pakistan

Summary: Pakistan’s mobile phone manufacturing sector experienced growth in 2024, positioning the country as a growing player in the international telecom market. However, challenges such as import restrictions and rising tax burdens generally hobbled the potential of local production capacity.

Local mobile boom: In January, a Dawn report recognized²⁰⁰ Pakistan as one of the fastest-growing telecommunication markets. However, the supply of local products was compromised with cellphone manufacturers dropping from 46 to 30 in 2023 due to import restrictions and the lingering impact of Covid-19 pandemic. In September, Google launched²⁰¹ an initiative to produce 500,000 Chromebooks in Pakistan, celebrating the milestone by presenting the first such device to Prime Minister Shehbaz Sharif. In October, Pakistan’s mobile phone industry hit a major milestone²⁰², producing 22.59 million devices in the first nine months of 2024. Of these, 13.86 million were smartphones, while 8.73 million were 2G handsets, reflecting a steady shift towards locally manufactured cellular devices.

Tax burden: In May, PTA decided²⁰³ to impose a fee of Rs120 on all locally manufactured cellphones to improve revenue collection. In June, the Global System for Mobile Communications (GSMA) warned that Pakistan’s tax hikes on mobile phone manufacturing could threaten the ‘Smartphone for All’ initiative, aimed to increase domestic mobile phone penetration from 40 to 70 per cent.

Anti-smuggling measures: In response to the growing issue of mobile handset smuggling in Pakistan, the federal government established a dedicated committee within the Customs Department (CD) to develop a strategy to tackle the problem. In December, after a public outcry, the Federal Board of Revenue within a day reversed a decision to confiscate more than one mobile phone brought by any Pakistani passenger landing in the country.

¹⁹⁸ IT, Telecom secretary to be selected from open market. (2024, September 2). The News. <https://www.thenews.com.pk/print/1226188-it-telecom-secretary-to-be-selected-from-open-market>

¹⁹⁹ Qadir, R. G. (2024). Professional replaces bureaucrat: Zarrar appointed IT, Telecom division secretary. The News. <https://www.thenews.com.pk/print/1226899-professional-replaces-bureaucrat-zarrar-appointed-it-telecom-division-secretary>

²⁰⁰ Jamal, N. (2024). Localising cellphone production. Dawn. <https://www.dawn.com/news/1807522>

²⁰¹ Chromebook production begins in Pakistan. (2024, September 6). Express Tribune. <https://tribune.com.pk/story/2493943/chromebook-production-begins-in-pakistan>

²⁰² Mobile phone production surges. (2024, October 26). Dawn. [https://www.dawn.com/news/1867719#:~:text=KARACHI%3A%20Amid%20a%20declining%20trend,on%20year%20\(YoY\).](https://www.dawn.com/news/1867719#:~:text=KARACHI%3A%20Amid%20a%20declining%20trend,on%20year%20(YoY).)

²⁰³ Kasuri, Z. (2024). PTA to impose new fee on local cellphones. The News. <https://www.thenews.com.pk/print/1189976-pta-to-impose-new-fee-on-local-cellphones>

C2c. Telecom industry issues

Summary: Pakistan’s telecommunications sector, in 2024, experienced significant developments, including mergers, financial deals, and regulatory challenges. New initiatives, such as affordable smartphones for citizens and foreign investments, are reshaping the sector, highlighting the need to balance competition, consumer rights, and investment.

Major merger: In March, the Competition Commission of Pakistan (CCP) completed²⁰⁴ the first phase of its review of the Telenor-Ufone merger, having collected the required documentation from all stakeholders. Following an examination of these documents in May, the CCP expressed²⁰⁵ concerns that the proposed merger could diminish competition in the industry. In June, the International Finance Corporation (IFC) approved²⁰⁶ up to \$400 million in debt financing to support Pakistan Telecommunication Company Limited’s (PTCL) bid in acquiring Telenor’s operations and assets in Pakistan. In November, a Dawn report²⁰⁷ argued that while PTCL and Telenor had the constitutional right to merge, careful consideration by CCP was required to balance and safeguard the interests of other industry players and the rights of internet consumers.

Outstanding dues: In July, Pakistan ruled out legal action to resolve²⁰⁸ a 16-year-old dispute with the United Arab Emirates over \$800 million in outstanding privatization proceeds from the PTCL sale. However, the federal government expressed optimism for an amicable solution in 2024. In the same month, the National Accountability Bureau (NAB) launched²⁰⁹ an inquiry into PTA’s alleged failure to recover billions of rupees in unpaid dues from private telecommunications companies.

Cheaper phones and lower taxes: In January, the Pakistan Business Council (PBC) urged²¹⁰ the federal government to lower taxes on all aspects of connectivity and eliminate barriers to investment in the country’s telecommunications sector. The same month, it was reported²¹¹ in The News that the federal government was planning an initiative to offer smartphones to citizens at affordable rates and easy installments. In July, Turkish financial technology firm Unicorn Papara acquired²¹² 100 per cent shares in Pakistani online payment

²⁰⁴ Ali, K. (2024). Telenor-Ufone merger nears completion. Dawn. <https://www.dawn.com/news/1823271#:~:text=ISLAMABAD%3A%20The%20Competition%20Commission%20of,to%20be%20finalised%20next%20week>.

²⁰⁵ ‘PTCL’s buyout of Telenor to stifle competition’. (2024, May 7). Dawn. <https://www.dawn.com/news/1832011#:~:text=The%20CCP%20provisionally%20concluded%20on,Ufone%2C%20a%20subsidiary%20of%20PTCL>.

²⁰⁶ Shah, S. (2024). IFC approves \$400m loan for PTCL to acquire Telenor Pakistan. The News. <https://www.thenews.com.pk/print/1204549-ifc-approves-400m-loan-for-ptcl-to-acquire-telenor-pakistan>

²⁰⁷ Ali, K. (2024). Corporate Window: A merger to shape the telco sector. Dawn. <https://www.dawn.com/news/1871574>

²⁰⁸ Rana, S. (2024). Govt shuns legal route for PTCL dues. Express Tribune. <https://tribune.com.pk/story/2479241/govt-shuns-legal-route-for-ptcl-dues>

²⁰⁹ Yasin, A. (2024). NAB begins probe into PTA ‘failure’ to recover dues from telecom firms. The News. <https://www.thenews.com.pk/print/1213515-nab-begins-probe-into-pta-failure-to-recover-dues-from-telecom-firms>

²¹⁰ Haider, M. (2024). Next govt urged to cut telecom taxation, facilitate investment. The News. <https://www.thenews.com.pk/print/1144608-next-govt-urged-to-cut-telecom-taxation-facilitate-investment>

²¹¹ Zaafir, M. S. (2024). Plan to make smartphones affordable for all. The News. <https://www.thenews.com.pk/print/1147044-plan-to-make-smartphones-affordable-for-all>

²¹² Siddiqui, S. (2024). Turkish fintech busy SadaPay. Express Tribune. <https://tribune.com.pk/story/2469254/turkish-fintech-buys-sadapay>

platform SadaPay, opening expansion opportunities into the South Asian and Middle Eastern digital money markets. The same month, Jazz restructured²¹³ its operations into four segments with a goal to double its revenue within four years. The company stated that it will prioritize its core business while expanding the reach and capacity of its 4G network in semi-urban and rural areas.

C2d. Blocking of SIMS

Summary: In 2024, Pakistan’s tax authorities implemented a series of controversial measures aimed at increasing tax compliance with a particular focus on suspending mobile phone connections. Despite some pushback from telecommunication operators and global technology organizations, the efforts sparked a wave of tax filings among individuals and business owners.

Sim block, tax unlock: In April, the Ministry of Interior instructed²¹⁴ the National Database and Registration Authority (NADRA) to block mobile phone SIMs linked to invalid or expired national identity cards (NICs). In May, the Federal Board of Revenue (FBR) issued²¹⁵ relevant departments with legally binding directives to suspend mobile connections of over half a million non-filer citizens, after its campaign to register retailers voluntarily failed to get traction. The same month, FBR confirmed²¹⁶ the blocking of mobile connections of at least 9,000 non-filer citizens, claiming that such measures were required to combat tax evasion and boost revenue generation. By July, in a bid to widen the revenue bracket, FBR had blocked²¹⁷ cellular connections of over 210,000 citizens posting income tax arrears. In August, PTA commenced the blocking of illegal cellular connections. In the initial phase, SIM cards registered under fraudulent identities or linked to cancelled NICs were being deactivated.

Directive pushback: In May, PTA placed under review²¹⁸ the FBR order to block SIM cards of individuals who had failed to file their 2023 income tax returns. The same month, telecommunication operators jointly expressed²¹⁹ concerns to the federal government, stating that the FBR decision to block cellular connections was rushed and will negatively affect both customers and industry outreach. Following their lead, the Global System for Mobile Communications (GSMA) in May expressed²²⁰ skepticism regarding the effectivity

²¹³ Telco Jazz eyes doubling revenues in four years. (2024, July 7). Dawn. <https://www.dawn.com/news/1844282#:~:text=KARACHI%3A%20Jazz%20has%20divided%20the,semi%20urban%20and%20rural%20areas>.

²¹⁴ Khan, I. A. (2024). SIMs issued on expired CNICs to be blocked. Dawn. <https://www.dawn.com/news/1828264>

²¹⁵ Rana, S. (2024). FBR orders blocking SIM cards of over half-a-million non-filers. Express Tribune. <https://tribune.com.pk/story/2464652/fbr-orders-blocking-sim-cards-of-over-half-a-million-non-filers>

²¹⁶ Over 9,000 non-filers Sims blocked on FRB’s orders. (2024, May 23). The News. <https://www.thenews.com.pk/print/1192261-over-9-000-non-filers-sims-blocked-on-fbr-s-orders>

²¹⁷ Non-filers: FBR blocks 210,000 SIM cards to ‘encourage’ tax payment. (2024, July 4). Business Recorder. <https://www.brecorder.com/news/40311268/non-filers-fbr-blocks-210000-sim-cards-to-encourage-tax-payment#:~:text=KARACHI%3A%20Pakistan's%20tax%20authority%2C%20the,income%20tax%20returns%20in%202022>.

²¹⁸ PTA to review FBR’s SIM blocking order. (2024, May 3). Express Tribune. <https://tribune.com.pk/story/2464950/pta-to-review-fbrs-sim-blocking-order>

²¹⁹ Ali, K. (2024). Mass SIM blocking not feasible, warn telcos. Dawn. <https://www.dawn.com/news/1832013#:~:text=ISLAMABAD%3A%20The%20telecom%20companies%20have,will%20adversely%20impact%20telecom%20customers>.

²²⁰ Ali, K. (2024). GSMA concerned over SIM blocking. Dawn. <https://www.dawn.com/news/1832581#:~:text=ISLAMABAD%3A%20The%20international%20body%20representing,active%20taxpayers%20>

of such directives with regards to tax compliance and stated that this could directly hit mobile service penetration in Pakistan. Later in May, following extensive negotiations, telecommunication companies agreed to begin blocking cellular connections of non-filer citizens in pre-determined small batches.

Judicial intervention: In May, the Islamabad High Court (IHC) issued²²¹ a stay order, halting the FBR move to block cellular connections of non-filer individuals and retailers. However, in the same month, the court clarified²²² that its earlier stay order was not intended to halt the blocking of mobile connections for non-filer individuals but was specifically directed at preventing action against the petitioner, private telecommunication operator Zong.

Filer rush: In May, cellular customers started²²³ facing the heat as 3,500 of such customers lost access to their mobile connections following their blockage by telecommunication operators. Later in the month, over 7,000 individuals filed their 2023 income tax returns to unblock²²⁴ their mobile SIM connections. In June, FBR confirmed²²⁵ that nearly 50,000 individuals and retailers had filed their income tax returns after their cellular connections were blocked.

list%20for%202023.

²²¹ Ali, K. (2024). IHC restrains FBR from blocking SIMs of non-filers. Dawn. <https://www.dawn.com/news/1833557#:~:text=ISLAMABAD%3A%20The%20Islamabad%20High%20Court,when%20the%20hearing%20will%20resume>.

²²² Zubairi, T & Mehtab, U. (2024). More than 11,000 SIMs of non-filers blocked so far: FBR. Dawn. <https://www.dawn.com/news/1835218>

²²³ Ansari, I. (2024). Non-filers feel FBR heat. Express Tribune. <https://tribune.com.pk/story/2466201/non-filers-feel-fbr-heat#:~:text=ISLAMABAD%3A,record%20their%20returns%20for%202023>.

²²⁴ Khan, M. Z. (2024). 7,167 people file returns to get SIMs blocked. Dawn. <https://www.dawn.com/news/1836570>

²²⁵ Khan, M. Z. (2024). 50,000 file tax returns to unblock SIMs: FBR. Dawn. <https://www.dawn.com/news/1842007>

C3. ARTIFICIAL INTELLIGENCE/AI

Developments and trends related to AI.

Summary: The year 2024 saw increasing stakeholder awareness and interest in Pakistan's artificial intelligence (AI) landscape. Government, international businesses and academia exhibited renewed interest in AI's potential to drive innovation and address societal challenges.

AI priorities: In October, Prime Minister Shehbaz Sharif championed^{xxi} the future of AI in Pakistan at the Future Investment Initiative Forum in Riyadh and called for collective global initiatives in the fields of artificial intelligence, cybersecurity, robotics and digital infrastructure. In September, AI for Good developed^{xxii} the 'National AI Policy GPT', an AI-powered resource providing access to the National AI policy in both English and Urdu. The resource was introduced to broaden accessibility, enhance understanding and foster engagement among diverse stakeholders. In July, the Federal Public Service Commission (FPSC) decided^{xxiii} to recruit 75 teachers to introduce coding and AI into Islamabad's primary schools. In May, the Asian Development Bank (ADB) expressed^{xxiv} concern over Pakistan's potential overreliance on foreign AI solutions due to the slow pace of domestic AI development.

AI promises and pitfalls: In January, a report^{xxv} published in Dawn advocated for the integration of AI into education to enhance accessibility and automate teacher-related tasks. In February, an Express Tribune report^{xxvi} encouraged Pakistan's graduates to pursue AI training to augment their earning potential compared to traditional computer science skills. In the same month, a report^{xxvii} published in The News emphasized on AI's potential for enhancing security through biometric verification systems and internet tailgating to combat terrorism in Pakistan. A March report^{xxviii} in The News suggested that AI could be used to promote gender equality in Pakistan's workplaces.

The same month, a report^{xxix} published in The News cautioned the authorities against the potential dangers of unregulated AI.

AI partnerships: In March, telecommunications operator Jazz partnered^{xxx} with TenX to upgrade its AI and machine learning systems, enabling the conversion of raw data into actionable insights for future predictions. In June, the Sindh government engaged^{xxxi} a technology firm to procure and install a robotic surgical system at Karachi's Jinnah Postgraduate Medical Center (JPMC). In August, the National Incubation Center for Aerospace Technologies (NICAT) partnered with Meta to host Asia-Pacific's first pitchathon^{xxxii} in Lahore, showcasing the potential of Meta's Llama 2 and Llama 3 AI models.

C4. TECH ENTREPRENEURISM AND START-UPS

Developments and trends in the digital entrepreneurship landscape, including women and tech.

Summary: Pakistan’s technology entrepreneurship and venture capital landscape experienced a downturn in 2024, marked by a year-over-year decline in funding values. This contraction was attributed to gender disparity in the start-up ecosystem, connectivity and disruption related to internet and telecom services, and brain drain, among others.

Falling funding: A venture capital landscape report^{xxxiii} released by Data Darbar in March revealed a significant decline in funding for Pakistan-based technology startups. In 2023, startups secured only \$75 million in investment, a 77 per cent decrease compared to the previous year. The number of confirmed deals also fell by 42 per cent, reaching a five-year low. In April, a report^{xxxiv} published in The News emphasized the urgent need for Pakistan’s corporate houses to adopt a technology-driven approach to business. The report highlighted the risk of falling behind global competitors if businesses neglected to prioritize venture-driven growth. In July, the Minister of State for Information Technology and Telecommunication encouraged^{xxxv} Pakistani businesses to capitalize on the growing economic partnership with China by investing in key technology sectors such as AI, cybersecurity, e-commerce, and digital infrastructure. In December, Gobi Partners, a leading pan-Asian venture capital firm, announced^{xxxvi} a \$50m Techxila Fund II in a venture with Bank of Punjab to foster entrepreneurship and strengthen economic cooperation to empower startups in Pakistan with a focus on high potential sectors such as fintech, e-commerce, logistics and supply chain and health tech.

Challenges for start-ups: The Pakistan Startup Ecosystem Report 2024 issued^{xxxvii} in December 2024 by Invest2Innovate (i2i) highlighted opportunities and challenges faced by the country’s start-up sector during the year. Counting successes, it said sectors such as fintech, e-commerce and cleantech continue to attract attention. This included fintech securing \$30.5 million of the total startup funding in Pakistan in 2024; SadaPay’s acquisition by Turkey’s Papara, PostEx’s \$7.3 million pre-Series A funding, and COLABS raising \$2 million to expand into the MENA [Middle east North Africa] region.

Highlighting challenges, the report said these include gender disparity, with women comprising only 39% of the workforce and receiving just 18.7% per cent of total startup funding since 2015 in Pakistan, compounding brain drain and infrastructure gaps. Connectivity also remained a significant hurdle, with 47% of the population lacking internet access and frequent disruptions causing an estimated \$238 million in losses in 2023. Regulatory complexities, low R&D investment (0.16% of GDP vs a global average of 2.62%),

and limited access to capital further strain the Pakistani ecosystem’s potential.

Women and tech: A March report published in the Express Tribune highlighted^{xxxviii} the critical role of gender diversity in Pakistan’s IT sector, emphasizing the potential risks to the industry’s long-term sustainability if women’s participation and advancement are neglected. Concurrently, The United Nations Population Fund (UNFPA) issued^{xxxix} a statement in March, underscoring its digital and technological initiatives aimed at empowering Pakistani women by enabling them to realize and exercise their sexual and reproductive rights.

Gaming industry: The government’s support for the digital economy, including the gaming industry, created a favorable environment for the sector to develop in 2024. In March, the United States Agency for International Development (USAID) initiated a five-year, \$24.7 million partnership^{xl} with Mindstorm Studio to empower Khyber Pakhtunkhwa’s youth through online game development. In August, according to a report^{xli} published in The News, Pakistan’s online gaming industry witnessed a modest resurgence after a four-year decline. In 2023, the number of locally developed games increased to 1,100. However, domestic popularity for these games remained elusive, with developers often targeting global markets for better financial returns.

C5. SPACE TECH

Developments and trends in the space domain related to Pakistan

Summary: Pakistan made some splashes in 2024 with key advancements made by its space program, including the successful launch of a lunar mission and the development of advanced satellite technology.

Pakistan in lunar orbit: In May, the nation’s inaugural lunar mission, iCube-Qamar created history, successfully^{xlii} entering the lunar orbit aboard a Chinese lunar probe, making Pakistan only the sixth country to put an indigenous satellite on the moon orbit. The Institute of Space Technology (IST), which launched the satellite, said the pivotal development will unlock larger-scale space missions for Pakistan in the future. Riding on the Chinese rocket Chang’e 6 lunar probe, the iCube-Q satellite marked a historic collaboration between Pakistan and China in lunar exploration. The Chinese mission landed on the moon’s far side, perpetually hidden from Earth, and will subsequently collect and return samples. In the same month, Pakistan’s historic milestone was followed by the receipt of the first orbital images transmitted by the satellite, underscoring Pakistan’s capabilities in space exploration.

Pakistan to land rover on the Moon: In November, Space and Upper Research Commission (SUPARCO) announced^{xliii} a collaborative agreement with China to launch a 35-kilogram indigenous rover to the challenging south pole of the Moon. Scheduled for a 2028 launch, the mission aims to conduct scientific research, test advanced technologies, and contribute to the establishment of an International Lunar Research Station.

Digital connectivity satellite launch: Later in May, SUPARCO launched^{xliii} the multi-mission communication satellite, PAKSAT MM1, designed to accelerate digital connectivity. In April, a report published in The News highlighted^{xliii} Pakistan’s significant strides in digitizing aerospace production while emphasizing the need for advancements in design and development.

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- ⁱ Ambitious Digital Nation Pakistan Act to be tabled in NA on 16th – The News
 - ⁱⁱ Bill seeking to unify identity for citizens tabled in National Assembly – The News
 - ⁱⁱⁱ Senate okays bill to set up agency with unusual sway to fight digital crime - Dawn
 - ^{iv} Cabinet approves tweaks to CrPC - Dawn
 - ^v Senate okays bill to set up agency with unusual sway to fight digital crime - Dawn
 - ^{vi} Journalists, vloggers among 150 booked under Peca - Newspaper - Dawn
 - ^{vii} Social media offences return to FIA's domain – Express Tribune
 - ^{viii} KP Ombudsman Secretariat records to be digitized – Dawn
 - ^{ix} Decision to launch electronic property card as part of land reforms - Dawn
 - ^x Maryam orders app launch for providing civic services at home – The News
 - ^{xi} CM orders digitization of land record - Pakistan - Business Recorder
 - ^{xii} Punjab Livestock Card, Farmer Guidance App launched – The News
 - ^{xiii} App launched to prevent property fraud – Express Tribune
 - ^{xiv} Online driving licence service inaugurated - Newspaper - Dawn
 - ^{xv} Sindh's UGAI app to combat fertiliser price distortion – Express Tribune
 - ^{xvi} E-commerce sector can surge above \$6b – Express Tribune
 - ^{xvii} Cabinet approves tweaks to CrPC - Dawn
 - ^{xviii} IT industry 'loses \$1m' due to one hour of net outage - Dawn
 - ^{xix} Pakistan ranked among lowest for internet speeds globally
 - ^{xx} Access to cellular services over 91pc: PTA report - Dawn
 - ^{xxi} PM champions AI-driven future – Express Tribune
 - ^{xxii} AI for everyone: your interactive guide to Pakistan’s AI policy – Express Tribune
 - ^{xxiii} 75 community teachers to teach coding, AI at primary level - Newspaper - Dawn
 - ^{xxiv} 'Need to cut reliance on foreign AI solutions' - Newspaper - Dawn
 - ^{xxv} AI in education - Newspaper - Dawn
 - ^{xxvi} 'AI training crucial for youth' – Express Tribune
 - ^{xxvii} Can AI help counter terrorism? – The News
 - ^{xxviii} AI and gender equality – The News
 - ^{xxix} The rise of AI – The News
 - ^{xxx} Jazz, TenX become partners - Business - Dawn
 - ^{xxxi} JPMC to have AI system used at John Hopkins, Harvard Medical School hospitals: CM – The News
 - ^{xxxii} First-ever pitchathon highlights AI potential in Pakistan – The News
 - ^{xxxiii} Tech & VC Landscape Pakistan 2023 | Report - Insights by Data Darbar
 - ^{xxxiv} Pakistan at a venture crossroads – The News
 - ^{xxxv} CPEC opens doors to tech-driven initiatives – Express Tribune
 - ^{xxxvi} Chinese firm to fund Pakistani startups - Dawn
 - ^{xxxvii} Pakistan Startup Ecosystem Report 2024 highlights challenges and opportunities for growth – The News
 - ^{xxxviii} IT experts stress on empowering women – Express Tribune
 - ^{xxxix} UNFPA Pakistan | Innovation and technology to improve the lives and rights of women and girls in Pakistan
 - ^{xl} Initiative launched to foster digital gaming industry - Dawn
 - ^{xli} Pakistan’s gaming industry grows, shifts focus to global play – The News
 - ^{xlii} Pakistan’s first moon satellite enters its orbit - Dawn
 - ^{xliiii} Suparco joins China’s mission for lunar exploration - Dawn
 - ^{xliiii} Suparco to launch PAKSAT satellite on 30th - Dawn
 - ^{xliiii} A digitized aerospace – The News

ABOUT FREEDOM NETWORK

(www.fnpk.org)

Freedom Network is a Islamabad-based independent media and development sector research, advocacy and training organization registered with the Securities and Exchange Commission of Pakistan (SECP). It was established in 2013. In 2017, Freedom Network was awarded the prestigious French Republic's "Human Rights Prize" for "its efforts for safety and protection of journalists and promotion of freedom of expression."

OUR MISSION:

To protect civil liberties, including freedom of expression and access to information, and promote an informed society that sees media as a key partner in a democratic and pluralist Pakistan.