

Journal of the National Institute of

Banking and Finance

P A K I S T A N

Volume 92 | Issue No. 02

July - September 2025

BRIDGING THE GAP

Turning Compliance into Culture



BUILDING AN AI-ENABLED BANKING FUTURE IN PAKISTAN ADOPTION TRENDS, POLICY SUPPORT AND ECONOMIC IMPACT



HABIBMETRO
سیراٹ
صِرَاط

243
BRANCHES

311 ISLAMIC WINDOWS

RAASTA ITMENAAN KA, KAMYABI KA

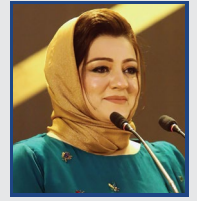
سیراٹ Global Network



021-111-1-HABIB(42242)
www.habibmetro.com

STAY AHEAD

editorial.



Shahla Naqvi
Editor

The Calm Before the Storm: It Must Calm Down Before It Storms

At a media briefing I attended a few years ago, a journalist amused the audience by noting that families today think twice before marrying their daughters to bankers, much as they once hesitated with doctors, due to the long hours demanded by both professions.

While banking and finance remains one of the most lucrative industries, recent years have brought mounting pressures to compete, remain profitable, innovate, and cut costs. For leaders, these demands bring pressure but also opportunities for reinvention. For many employees, however, these pressures now translate into chronic stress, rising mental-health concerns, and burnout.

With World Mental Health Day in October, this is an apt moment to discuss protecting employees' mental space, before their silent and unrecognized suffering turns the surface calm into a brewing storm waiting to strike.

Banking and financial services consistently rank among the most stressful industries globally. World Finance reported as early as 2019 that mental-health concerns were rising across global banking, driven by long hours, high-stakes decision-making, and relentless customer expectations.

A growing body of international data paints a troubling picture. Recent global surveys reinforce the trend. Spill Chat (2024) shows that nearly six in ten employees worldwide report higher stress levels than in previous years. A Gulf Business survey (2024) reveals that the finance industry leads in burnout and in employees considering leaving their jobs due to mental strain.

Research by Mental Health First Aid England (MHFA 2023) adds another layer: 83% of banking professionals have considered quitting due to mental-health concerns, and burnout rates exceed 50% (Systematic Reviews, 2021). The entrenched 60–80-hour work culture continues to push employees beyond sustainable limits. There have been reported cases where workers attributed breakdowns and suicide attempts to impossible targets and bullying management. Business Insider's account of a 22-year-old Goldman Sachs analyst who died by suicide remains a stark reminder of these toxic expectations.

Addressing this crisis requires decisive organizational action. HR policies must move beyond symbolic wellness campaigns to structured, accountable frameworks. Mental-health coverage, confidential counselling, and burnout assessments should be standard. Managers should be evaluated partly on team wellbeing as well as performance. Workload balancing, mandatory rest periods, and clear protocols to prevent toxic practices are essential.

Equally important is adopting true work-life balance, not a perfect split of hours, but a sustainable allocation of time that protects health, relationships, and performance. As balance is subjective, the real indicator is whether employees feel fulfilled rather than chronically overwhelmed. This requires leaders to model healthy boundaries and ensure that realistic workload planning, respect for personal time, and a culture of disconnecting after hours is genuinely supported.

Psychological safety must be treated as a strategic asset. A culture where employees feel secure speaking about stress, challenging unrealistic targets, or flagging unethical demands is essential. Training and communication, resilience workshops, stress-management programmes, and empathy-based leadership development, can help build healthier workplaces. Managers also need support and tools to identify when team members require intervention, reinforcing a culture that destigmatizes mental health and normalizes asking for help.

Ultimately, the financial services industry must redefine what high performance means. Productivity that comes at the cost of mental health is neither sustainable nor ethical. Institutions that prioritize wellbeing see lower turnover, stronger client relationships, and better decision-making. Deloitte's 2022 report shows a five-fold return on investments in workplace wellbeing through reduced absenteeism, presenteeism, and staff turnover.

The data is clear, and the stories are sobering. What remains is the will to act. The industry must choose: continue rewarding burnout at the risk of an exhausted and demoralized workforce, or build a future where performance and wellbeing thrive together. To dismiss this calm before the storm would be a costly mistake.



Home
Remittance



Currency
Exchange



Education
Fee

Receive / Send Western Union, Moneygram and Ria
Payments through Ravi Exchange

OUR SERVICES

Home
Remittance

ترسیلات زر

Currency
Exchange

کرنسی ایکسچینج

Telegraphic
Transfer

ٹیلی گرافک ٹرانسفر

Established in 2005, Ravi Exchange is Pakistan's largest exchange house, serving over 2 million customers annually through 150+ branches nationwide. It offers reliable currency exchange at guaranteed rates, using innovative ways to stay connected with customers.



+92 300 1529529 | 042 111 529 529 | raviexchange.com

Head office: 29 - Montgomery Road, Lahore, Pakistan

Contents

THE CONTRIBUTORS

Dr Aneel Salman is the OGDCL-IPRI Chair, Economic Security at the Islamabad Policy Research Institute (IPRI), focusing on macroeconomics, trade, and behavioral economic policy. He led the formulation of the Government of Pakistan's National AI Policy, 2025.

Sheraz Ahmad Choudhary is Research Associate at the Islamabad Policy Research Institute (IPRI) and affiliate of the University of Sussex, specializing in macroeconomics, trade, public finance and environmental economics.

Federal Ombudsperson Secretariat for Protection Against Harassment (FOSPAH) is operating as an autonomous quasi-judicial statutory body under the "Protection Against Harassment of Women at the Workplace Act, 2010 (Act of 2010)," with the primary mandate of safeguarding individuals against workplace harassment. Notably, FOSPAH has been entrusted with additional responsibilities through the "Enforcement of Women's Property Rights Act, 2020," empowering it to adjudicate cases pertaining to women's legal rights in properties situated in Islamabad Capital Territory. FOSPAH's unwavering commitment to a harassment-free workplace revolves around cultivating a secure work environment devoid of abuse, violence, intimidation, and discrimination.

COVER STORY

08



BUILDING AN AI-ENABLED BANKING FUTURE IN PAKISTAN ADOPTION TRENDS, POLICY SUPPORT AND ECONOMIC IMPACT

NEWS CORNER

- 06** NIBAF Pakistan
Activities: Highlights
(July-September 2025)

WORKPLACE SAFETY, EQUITY AND COMPLIANCE

- 22** Bridging The Gap:
Turning Compliance
into Culture



**National Institute of Banking
and Finance Pakistan**

QUARTERLY JOURNAL SUBSCRIPTION

☐ One Year Subscription PKR 800 ☐ Two Year Subscription PKR 1400

Pay Order No. _____

Name: _____ Organization: _____

Delivery Address: ☐ Business ☐ Private _____

Telephone: _____ E-mail: _____

Note: Please return this filled out form along with the pay order of your respective subscription made in favor of "NIBAF Pakistan"



SBP POLICY REGIME ADD-ONS

- 27** Add-ons to SBP
Policy Regime
(July–September 2025)



BOOK REVIEWS

- 31** A Map of the
New Normal:
How Inflation, War,
and Sanctions Will
Change Your World
Forever
- 32** Islamic
Sustainable Finance:
Policy, Risk and
Regulation



Published by

National Institute of Banking
and Finance Pakistan
Moulvi Tamizuddin Khan Road
Karachi 74200, Pakistan
☎ 92 (21) 111-000-427
🌐 nibaf.sbp.org.pk

Editor

Shahla Naqvi
☎ 92 (21) 35277 529
✉ publications@nibaf.org.pk

Deputy Editor

M. Abdul Basit Adil
☎ 92 (21) 35277 508

Advertising

Muhammad Akram
☎ 92 (21) 35277 511
✉ muhammad.akram@nibaf.org.pk

Design

M. Jahangir Ishaq | S. Haris Jamshaid

Copyright



**National Institute of
Banking and Finance
Pakistan**

All rights reserved. The material
appearing in this journal may not be
reproduced in any form without prior
permission of National Institute of
Banking and Finance Pakistan.

General Disclaimer

This Journal is based on contributions from
individuals & information obtained from local
and international print and electronic media.
NIBAF Pakistan has not verified this information
and no warranty, expressed or implied, is made
that such information is accurate, complete or
should be relied upon as such. Views expressed
in the articles published in this Journal belong to
the authors only, and are by no means a
reflection of the views of NIBAF Pakistan as an
institution. In no circumstances NIBAF Pakistan
and its team members would be liable for any
incidental or consequential damage that may
occur from the use of information contained in
NIBAF Pakistan publication(s).

You are invited to send your write-ups to the Editor on
topics of interest relating to banking and allied fields.
Publishing is subject to approval by NIBAF Pakistan.

To: National Institute of Banking and Finance Pakistan. M.T. Khan Road, Karachi 74200, Pakistan

FOR OFFICE USE ONLY

☐ Jan - Mar _____

☐ Apr - Jun _____

☐ Jul - Sep _____

☐ Oct - Dec _____

☐ Jan - Mar _____

☐ Apr - Jun _____

☐ Jul - Sep _____

☐ Oct - Dec _____

UAN: (021) 111-000-427 | Email: publications@nibaf.org.pk | Website: www.nibaf.sbp.org.pk

BANK ON NIBAF, PAKISTAN

Journal of the National Institute of Banking and Finance, Pakistan, previously known as the Journal of The Institute of Bankers Pakistan, is a reputed quarterly publication of NIBAF, Pakistan. It enjoys a wide readership of both local and international subscribers of the hard copy as well as of the digital version online.



NIBAF, Pakistan values its member banks and financial institutions, who bank on NIBAF, Pakistan to deliver quality professional capacity building services to the banking and financial sector of Pakistan. The NIBAF, Pakistan Journal is an ideal platform to showcase and promote your organization's services within the banking fraternity.



For Advertisement details: (+92) 21-35277-511 | publications@nibaf.org.pk

NIBAF PAKISTAN ACTIVITIES HIGHLIGHTS

July – September 2025



Customized Training

NIBAF Pakistan organized several customized training programs for various banks and institutions, focusing on enhancing skills and knowledge. "Neuro Echo Leadership", a two-day training program, was held in Lahore from July 23-24, 2025, with 13 participants from different banks; "Mastering Critical Thinking & Emotional Intelligence", a two-day training program also held in Lahore from August 19-20, 2025, with 12 participants from different banks; "SBP Currency & Prize Bond Management", a one-day training program held in Lahore on September 16, 2025, with 43 participants from MCB Bank; "Women in Leadership", a two-day training program held in Lahore from September 16-17, 2025, with 21 participants from different banks; and "Personal Grooming", a one-day training program held in Karachi on September 23, 2025, with 14 participants from ILink.

Certification Program

Several certification programs for various institutions were organized by the Institute. NIBAF Pakistan conducted a one-month Banker Development Program certification for Silver Jubilee Development, a subsidiary of Agha Khan, in Karachi and Rawalpindi respectively. The Karachi session, which commenced on August 18, 2025, had 23 participants, while the Rawalpindi session, which commenced on September 1, 2025, had 26 participants.

Additionally, the team arranged customized training sessions for Sindh Bank's Cash Officers and General Banking Officers in Karachi, with 90 bank employees attending the Certified General Banking Officer Program (CGBOP) from September 22-26, 2025, and the Certified Cash Officers (CCO) Program from September 27-28, 2025.

International Training

The NIBAF Pakistan team organized an international training session in Karachi on "The Tales from The Trenches: Understanding Trade Finance & Import/Export Risk in Today's Interconnected World", on August 21, 2025. The one-day training program saw participation from 36 commercial banks and corporate entities across Pakistan, with an additional 9 participants joining via ZOOM from other cities. The session was led by esteemed trainers, Mr. Vincent O'Brien, Director ICC UAE, and Mr. Mohamed Daoud, Director Moody's Industry Practice Lead – Financial Crime Compliance, Middle East and South Asia.

ISQ Fast Track

The ISQ Fast Track exams were held for Bank AL Habib Limited's Graduate Trainee Officers (GTOs) in Karachi, Lahore, and Islamabad from September 29 to October 2, 2025. A total of 161 GTOs participated in the exams.

Assessment Services

NIBAF Pakistan conducted various assessment tests for several banks. For Faysal Bank, the team conducted 4 assessment drives: 40 participants in Lahore on July 4, 35 employees in Islamabad on July 12; 44 participants in Multan on September 2; and 32 participants in Lahore on September 10, 2025. For Bank AL Habib Limited, 3 Branch Manager Certification Program assessments were conducted, with 64 employees assessed on July 10; 18 employees on August 7; and 71 employees on September 4; across multiple cities. Additionally, they conducted a Certified Trade and Credit Officers assessment with 37 employees on August 5; and a Branch Managers' assessment with 688 participants on September 27. An overseas placement assessment for 2 National Bank of Pakistan employees was also conducted on July 18 in Lahore.

Promotion Tests

Promotion tests for National Bank of Pakistan employees were held on July 13, 2025, with approximately 5,057 candidates appearing for the test at various test centers across Pakistan. Additionally, a second round of promotion tests was conducted on September 21, 2025, where 268 bank employees were assessed.

Events / MOUs

On September 15, 2025, the Marketing, Communication and Strategic Alliances team of NIBAF Pakistan signed a Memorandum of Understanding (MOU) with Soneri Bank Limited for an Islamic Banking Certification program (e-IBCP). The MOU was signed by Soneri Bank's CEO, Mr. Muhtashim Ahmad Ashai, and NIBAF Pakistan's CEO, Ms. Lubna Farooq Malik in the presence of other senior officials from the both organizations.



Tales from the Trenches: Understanding Trade Finance, Trade Compliance and Sanction Risk in Today's Interconnected World



Women in Leadership



MOU – NIBAF Pakistan and Soneri Bank



BUILDING AN AI-ENABLED BANKING FUTURE IN PAKISTAN

ADOPTION TRENDS, POLICY SUPPORT AND ECONOMIC IMPACT

By: Dr Aneel Salman & Sheraz Ahmad Choudhary

This study explores the current state of AI adoption in Pakistan's banking sector, examines the associated challenges and implications, and analyzes how the **National Artificial Intelligence (AI) Policy, 2025** can support and accelerate AI integration in the industry. It looks at how policy tools like open banking (safe data sharing between financial institutions), shared data utilities, regulatory sandboxes (controlled environments to test new financial technologies), and capacity building (building digital and analytical skills) can speed up the safe and efficient use of AI. The study's baseline estimates suggest that, with good governance and transparent data-sharing reforms, AI adoption could raise Pakistan's Gross Domestic Product (GDP) by about 1.25% by 2030, mainly through improved efficiency and deeper access to credit.

Supported by transparent budgets and Key Performance Indicators (KPIs) like quicker customer onboarding, lower fraud, and an increase in AI-enabled lending, the suggested action plan identifies key institutions like the State Bank of Pakistan (SBP), the Securities and Exchange Commission of Pakistan (SECP), and the Ministry of Information Technology and Telecommunication (MoITT) as primary stakeholders in driving this process forward. The paper also stresses that responsible AI use, consumer protection, and strong model-risk management are essential to building trust and ensuring sustainable innovation in the banking system.



AI use in the banking sector goes all the way to predictive analytics, which can be used in risk management and fraud detection, and chatbots, which can be used to provide personalized customer service."

Financial Technology (FinTech), Artificial Intelligence (AI), and globalization are powerful forces that are driving significant changes in the global banking industry. These shifts were particularly pronounced amid the COVID-19 pandemic, which accelerated the adoption of digital technologies and transformed the financial services landscape worldwide.

As banks transition from the experimental phase to large-scale implementation of AI, the question arises: how to transform evidence of concept into evidence of value, and how to make AI a real source of change and concrete benefits.

Although many banks have invested significantly in technology, they still experience productivity losses, reduced revenue growth rates, and the challenge of competing with non-bank players, including fintechs and neobanks. AI offers a way forward by enhancing work efficiency, automating routine processes, and improving customer and employee experiences. AI use in the banking sector goes all the way to predictive analytics, which can be used in risk management and fraud detection, and chatbots used to provide personalized customer service (Choudhury, et al. 2022).

In other areas, the most financially successful firms already leverage AI to personalize financial advice, forecast loan defaults, and boost software development productivity, achieving up to a 40% increase in coding efficiency. Four strategies used by successful banks include:

1. Establishing a bold, organization-wide vision of AI that delivers business value;
2. Transforming entire domains rather than deploying isolated applications;
3. Building a fully integrated AI stack with multi-agent systems that handle complex workflows; and,
4. Ensuring sustainability through cross-functional collaboration, centralized AI governance, and reusable capabilities that provide value across the organization (Giovine et al., 2024).

Despite the proclamation of AI as a revolutionary game changer in banks (given greater efficiency, smarter decision-making, and increased profitability), its implementation has not been as even as it could be. McKinsey projected that AI generative potential might bring in \$340 billion in yearly revenue to the banking sector, although the vast majority of organizations are

unable to achieve AI scalability. While some banks have achieved success, e.g., the ones working on personalized financial advice through AI or enhancing developer productivity by 30–40% by summarizing and auto-generating documents, most are still in the early stages of experimentation, such as document summarization or simple email generation.

The problem is that introducing AI to the already existing legacy systems does not lead to transformational change and may result in technical debt creation instead. With modern-day challenges of diminishing productivity, slow growth and increase in competition by neobanks and fintechs, banks should not apply AI in a superficial manner, but strategically as there is the potential to unlock its full potential (Chung & Lerner, 2025).

// The problem is that introducing AI to the already existing legacy systems does not lead to transformational change and may result in technical debt creation instead."

On the other hand, globalization has also exposed banks in the Global South (in countries like Pakistan) to heightened risks, including economic volatility and regulatory challenges that necessitate adaptive strategies to ensure stability and compliance (Smith, 2023).

Pakistan is witnessing a surge in the use of AI technologies by banks to make their operations leaner, less expensive, and more satisfying for customers. AI-enabled solutions are also enabling banks to understand customer needs better, provide them with custom products and services, and stay competitive (Choudhury, et al. 2022). The banking sector is experiencing service delivery model revolutionization through fintech innovations that include digital payment solutions, blockchain technology, and peer-to-peer lending.

In 2023, 64% of adults in Pakistan had a bank account which is an impressive improvement from 16% in 2015, representing good gains in financial inclusion efforts and digital banking growth (Dawn, 2024a). Nevertheless, an unchanging gender gap remains despite these gains, 48% of men in 2024 had mobile wallets, versus 11% among women, which indicates lack of equality in digital access (Dawn, 2024b). In the same way, the percentage of women having bank accounts increased to 47% in 2023 compared to 23% in 2018, as per data provided by

State Bank of Pakistan, quoted by Dawn (2024a). Nonetheless, according to World Bank (2025) data, only 21% adults are actively using formal financial-institution accounts thereby pointing to the fact that there are many who are underbanked but have access. Combined with such numbers, this demonstrates that AI-powered lending solutions and digital-onboarding systems should be developed to ensure greater inclusion, particularly of women and rural-based individuals.



Fintech is becoming an important factor in advancing financial inclusion in Pakistan through the availability of financial services to unbanked and underbanked citizens (Jones & Patel, 2021). Digital payment solutions are making transactions easier and blockchain technology is boosting transparency and security of financial operations. In addition, peer-to-peer lenders are providing alternative financing solutions, thus opening up access to credit and promoting entrepreneurship (Jones & Patel, 2021).

In July 2025, Pakistan passed its first National Artificial Intelligence Policy, 2025 under a holistic approach to using AI and its associated technologies for national growth (MoITT, 2025). Pakistan, like most emerging economies, is confronted with the need to modernize its industries, train its human resources and increase innovation in the face of worldwide digital disruption. AI is commonly known as a general-purpose technology, which can change economic and social systems and the leadership of Pakistan wants to focus on its potential and exploit it in a proactive and responsible way. According to the Prime Minister, the project is aimed at creating a full-scale AI ecosystem that would offer employment opportunities to young people and enhance national income (Arain, 2025). The foreword to the policy highlights that it is aimed at making Pakistan a knowledge-based economy by investing in innovation and skills as well as safeguarding responsible and ethical utilization of AI.

“In July 2025, Pakistan passed its first National Artificial Intelligence Policy under a holistic approach to using AI and its associated technologies for national growth... the policy highlights that it is aimed at making Pakistan a knowledge-based economy by investing in innovation and skills as well as safeguarding responsible and ethical utilization of AI.”



This paper advances two central arguments:

1. The National AI Policy, 2025 serves as a catalyst for sustainable financial innovation.
2. AI has the potential to strengthen the financial sector's role, especially the banking sector, in Pakistan's broader economic transformation.

Pakistan's Financial Sector: Implications of Pakistan's National AI Policy, 2025

Pakistan's financial sector holds significant potential for transformation through AI. The National AI Policy, 2025 recognizes finance as one of the primary sectors where technological advancement should be prioritized. Given below are some positive benefits for Pakistan's financial system:

Financial Inclusion and AI-Enabled Lending

The National Financial Inclusion Strategy aims to bring at least half of Pakistan's adult population into the formal financial system. AI can support this goal by using alternative data like mobile phone usage and transaction history to assess creditworthiness and provide microloans to small and medium-sized businesses (State Bank of Pakistan, 2024). The National Artificial Intelligence Policy, 2025 also supports the growth of fintech by introducing regulatory sandboxes and funding opportunities for innovation (MoITT, 2024). AI-powered tools like chatbots and Urdu-language interfaces make financial services more accessible for users with low literacy levels (Google Public Policy, 2023).

AI in Banking Operations

AI is already being used in Pakistan's banking industry to improve fraud detection, regulatory compliance, and customer service. Machine learning models help identify suspicious transactions and support anti-money laundering (AML) efforts by analyzing patterns and flagging unusual activity (SBP, 2024). The State Bank of Pakistan's Financial Stability Review 2024 also highlights the growing use of supervisory technology (SupTech) to process regulatory data more efficiently and enhance oversight (SBP, 2024).

Risks and Regulatory Measures

The State Bank of Pakistan (SBP) is finalizing its Principles for Responsible AI in Finance, which focus on key areas such as transparency, model governance, and data protection (Dawn, 2025). These guidelines also emphasize environmental sustainability, encouraging banks to assess how their AI-related activities impact their carbon footprint (SBP, 2024).

Fintech, Insurtech, and Regtech Development

The fintech sector in Pakistan, which also comprises fintech services like JazzCash and Easypaisa, is also harnessing AI to customize financial services and prevent frauds (MoITT, 2024). While the regtech applications are set to be launched by the Securities and Exchange Commission of Pakistan (SECP) that would enable compliance automation, the practice has been adopted in the region by Singapore and Malaysia (Google Public Policy, 2023).

Ethical and Consumer Considerations

Ethical concerns such as fairness, transparency, and privacy are key challenges in the use of AI in finance. The National AI Policy 2025 emphasizes the need for responsible and ethical adoption of AI technologies (MoITT, 2024). To build customer trust, it is important to ensure that AI models are transparent, explainable, and that users are aware of how their data is being used (Dawn, 2025).

AI in Pakistan's Financial Sector: Economic Growth Outlook (2025–2030)

Pakistan's financial sector is rapidly adopting AI to automate services, improve credit allocation, and expand financial inclusion. These innovations are expected to drive GDP growth by boosting productivity, reducing costs, and widening access to credit. Key growth channels include greater operational efficiency through AI-driven Know Your Customer (KYC) verification, risk assessment, and fraud automation (cutting costs by 20–30%); smarter credit issuance via machine learning underwriting that lowers defaults; enhanced financial inclusion through AI-enabled onboarding and scoring; and improved market stability supported by advanced AI analytics for supervision and fraud detection.

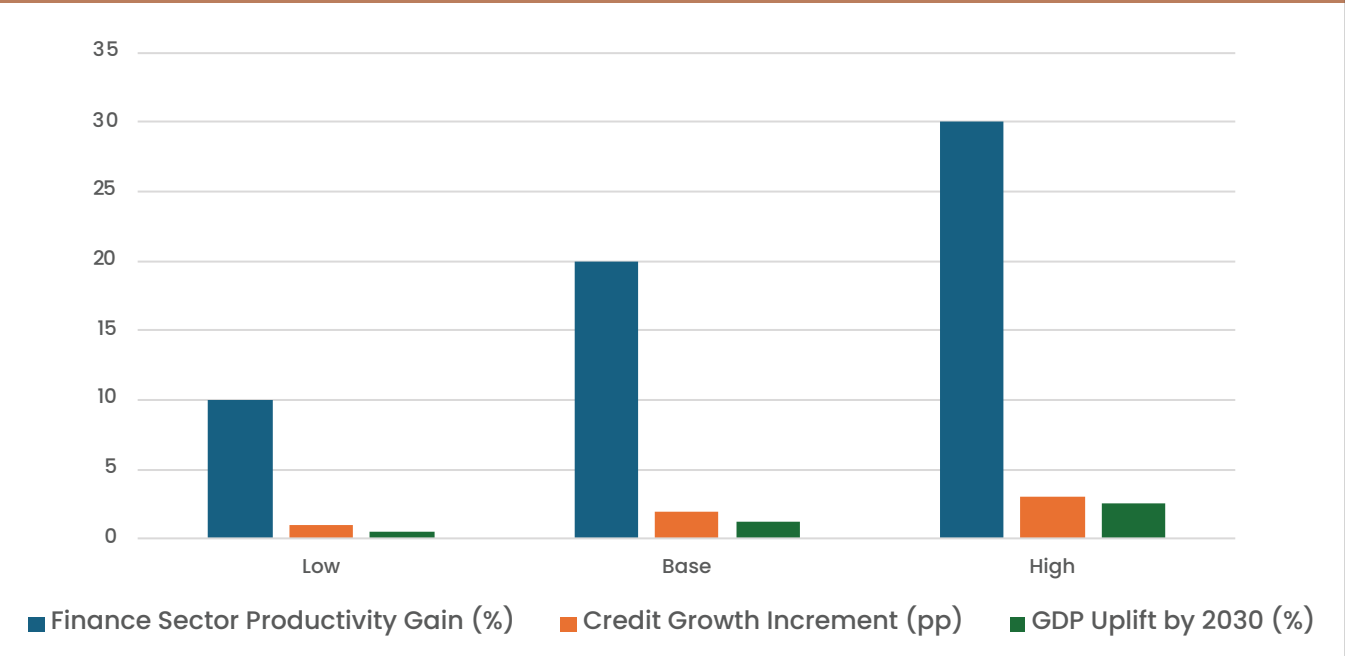
TABLE 1: 2030 GDP IMPACT SCENARIOS¹

Scenario	Finance Productivity Gain	Credit Deepening	Uplift (by 2030)
Low	+10% in sector productivity	+1pp lending growth	0.50%
Base	20%	+2pp lending growth	1.25%
High	30%	+3pp lending growth	2.50%

Source: Authors' own modelling

¹See Appendix for detailed methodology

FIGURE 1: SCENARIO SUMMARY



Source: Authors' own modelling

Current State of AI Adoption in Pakistan’s Banking Sector

A recent survey conducted by the State Bank of Pakistan (SBP) provides a valuable reference point for assessing the extent of AI adoption within Pakistani financial institutions. In its Financial Stability Review 2024, the SBP reported that it surveyed 55 regulated entities, including commercial banks (both conventional and Islamic), microfinance banks, payment service providers, and digital banks, to evaluate their use of AI technologies. The findings revealed that approximately half of these institutions have already implemented AI solutions or are in the process of developing them. The most widespread AI technologies used by Pakistani banks are robotic process automation (RPA) to deal with repetitive operational processes; virtual assistant/ chatbots to provide customer services; machine learning (ML) models to detect fraud and handle risks (Iqbal, 2025).

As an example, AI-based fraud detection has helped local banks track transactions in real time and identify anomalies. In Pakistan, chatbots are being used to address more and more routine customer queries and are available 24/7. Also, there is developing

AI-based credit scoring: fintech lenders and certain banks are considering the possibility of using algorithms that analyze non-credit data to determine the creditworthiness of borrowers with thin credit files. These priorities were recently highlighted by the URAAN National Financial Inclusion initiative, which requires participants to develop an alternative credit scoring and fraud detection using AI in order to achieve financial inclusion (Ministry of Planning Development and Special Initiatives, 2025). This means that there has been a keen interest to harness AI to provide credit to underserved areas, based on data-driven approaches to risk assessment where conventional credit bureaus are suboptimal.

The National Artificial Intelligence Policy 2025 envisions using AI to support inclusive economic growth and advance Pakistan’s digital transformation. The policy is constructed on six strategic pillars, including AI Innovation Ecosystem, Awareness and Readiness, Secure AI Ecosystem, Transformation and Evolution, AI Infrastructure, and International Partnerships. Each pillar deals with various aspects of adoption of AI, including financing innovation or maintaining ethics and international cooperation. This paper breaks down the impact of these pillars on the performance

of the financial sector in Pakistan, especially in the effectiveness of banking and financial inclusion. The opportunities and risks are discussed with both references to international examples and the efforts in Pakistan.

Global Best Practices of AI Adoption in the Banking Sector

In India, the use of AI for digital KYC, fraud detection, and microlending has resulted in a 50% decrease in customer onboarding time and a 25–30% increase in digital banking usage. Similarly, Kenya has increased financial inclusion by 15–20%, especially among previously unbanked populations, by integrating AI into credit risk modelling for microfinance institutions and mobile banking platforms like M-Pesa. AI-enabled anomaly detection and real-time compliance systems have improved anti-money laundering (AML) efficiency and reduced fraud losses by 40% in the UK. Market liquidity has increased by 10% to 15% and volatility management has been reinforced by Singapore's use of AI in trading algorithms and stock exchange regulation. Through platforms like Alipay and WeChat Pay, China has engaged over 200 million users and reduced transaction fraud by pioneering large-scale applications of AI in facial recognition payments and robo-advisory services:

There is developing AI-based credit scoring: fintech lenders and certain banks are considering the possibility of using algorithms that analyze non-credit data to determine the creditworthiness of borrowers with thin credit files."

TABLE 2: GLOBAL COMPARATIVE MODELLING OF AI INTEGRATION IN THE FINANCIAL SECTOR

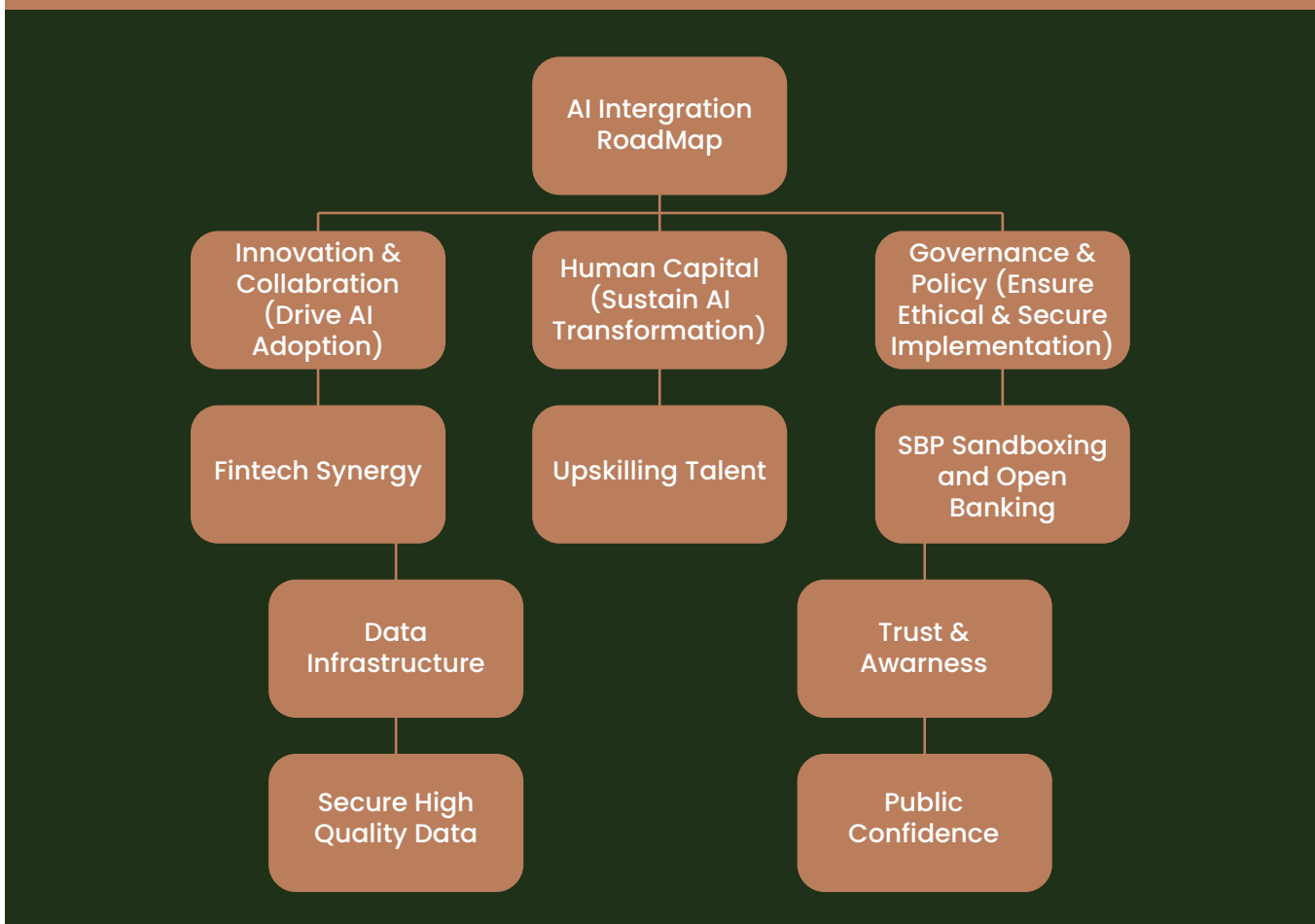
Country	AI Use Case in Finance	Measured Outcome	Source
India	AI-based micro-lending, fraud detection, digital KYC in banking	25–30% increase in digital banking usage; reduced onboarding time by ~50%	PwC India (2022); NITI Aayog (2021)
Kenya	AI + mobile banking (M-Pesa), credit risk models for microfinance	15–20% boost in financial inclusion for unbanked populations	GSMA (2020); Suri & Jack (2016)
United Kingdom	AI for anomaly detection, real-time compliance in digital banking	~40% drop in fraud losses; improved AML (Anti-Money Laundering) response time	Financial Conduct Authority (FCA), UK (2021)
Singapore	AI-driven trading algorithms, AI-regulated stock exchange systems	10–15% increase in market liquidity; tighter spread and volatility management	Monetary Authority of Singapore (MAS) (2020); Deloitte (2021)
China	AI-based facial recognition payments, robo-advisors in wealth management	200 million+ users via Alipay and WeChat Pay; lowered transaction fraud significantly	McKinsey & Company (2019); China AI Report (2020)

Source: Authors' own

Roadmap for AI Integration in Pakistan's Banking Sector

To convert the potential of AI into reality, the banking industry in Pakistan requires a well-defined and prospective roadmap that promotes innovation, governance, and inclusivity. Banks and fintech startups

should be encouraged to collaborate to speed up the creation and implementation of AI models, especially in such areas as credit scoring, risk assessment, and personalized customer services. Human capital investment is a key factor too, as banks should reskill their current employees and recruit new ones with skills in AI, data analytics, and cybersecurity.

FIGURE 2: FRAMEWORK OF AI INTEGRATION IN THE BANKING SECTOR

Source: Authors' own construct

AI Adoption Opportunities for Pakistan's Banking Industry and Implementation Strategy

AI has the potential to change the lives of rural and underserved individuals through digital financial services with more than 190 million mobile subscribers and the growing popularity of mobile wallet solutions, including Easypaisa and JazzCash. Onboarding can be made easier by AI-driven chatbots, especially those that speak local languages, who can inform users on how to save and credit, and can offer financial literacy services without the need to visit a physical branch.

Operationally, AI has a high potential of cost savings through the automation of back-office repetitive tasks like Know Your Customer (KYC) verification, document scanning and compliance reporting. Moreover, AI-based systems can improve the regulatory compliance system in Pakistan by supporting real-time monitoring of operations, anti-money laundering (AML) verification, and reporting of operations to authoritative bodies, such as the State Bank of Pakistan (SBP) and the Federal Board of Revenue (FBR).

The latest major finance supervisory official bodies like SBP and SECP started upgrading their supervisory architecture to support AI and RegTech plus SupTech-based oversight. Nevertheless, the number of publically-reported quantitative metrics is still constrained: there

is no easily-accessible number of the staff assigned to SupTech/RegTech units in SBP or SECP, no aggregate disclosure of the number of regulatory filings in banking and non-bank-financial sectors that are digitized. The regulatory environment has developed around model governance, such as the SBP's Enterprise Technology Governance and Risk Management Framework is currently under consultations and covers model risk management (PBA, 2024). However, the list of banks which have model-risk specific committees or boards is not publicly listed. In this context, it is recommended that statements claiming AI-facilitated supervision or SupTech efficiency benefits be disclosed as on the denominator (personnel, models run, filings digitized) are unreported and any efficiency or risk-cut estimate of the statement be directional, but not absolute.

“ Banks should reskill their current employees and recruit new ones with skills in AI, data analytics, and cybersecurity.”

TABLE 3: IMPLEMENTATION STRATEGY

Policy Area	Lead Agency / Partners	Key Implementation Measures	Expected KPI / Target	Source
Regulatory & Supervisory Readiness	SBP, SECP, MoITT	Establish joint AI governance framework; define model-risk guidelines and audit standards; embed fairness & explainability clauses in regulatory sandbox; build regulator data-science capacity	100 % banks with model-risk committees by 2027; ≥ 50 regulators trained in ML-audit tools	SECP (2024); SBP (2024)
Digital Onboarding & e-KYC Expansion	SBP, NADRA, Banks/MFBs/EMLs	Deploy shared e-KYC utility; introduce tiered due-diligence for low-risk accounts; automate remote onboarding via NADRA APIs	Median onboarding time ↓ 25 %; abandonment ↓ 40 % by 2027	SBP (2023); McKinsey & Company (2024)
Fraud & AML Analytics	SBP, FMU, Banks	Integrate AI-based anomaly detection; connect STR systems through secure API; run post-validation model audits	Confirmed fraud losses ↓ 20–40 %; false-positive rate ↓ 30 % by 2028	Retail Banker International (2024)
AI-Enabled Credit & Financial Inclusion	SBP, SECP, Commercial & Microfinance Banks	Expand alternative-data credit models; incentivize SME & female borrower segments; use AI for risk-based pricing	Thin-file lending ↑ 15–25 %; female share ↑ 10 p.p. by 2030	Deloitte (2024); SBP (2024)
Open Banking & Data Infrastructure	SBP, MoITT, Fintech Association of Pakistan	Implement open-banking sandbox; define data-sharing APIs; enforce uptime & security standards	API uptime ≥ 99 %; API calls ↑ > 30 % YoY; ≥ 15 third-party participants by 2027	SBP (2024)
SupTech & RegTech Capacity	SBP, SECP, MoITT, Universities	Launch joint SupTech lab; deploy real-time RegTech filing systems; digitize ≥ 70 % regulatory submissions by 2026	SupTech tools operational in 2 agencies; regulatory filings digitized ≥ 70 %	SBP (2024); SECP (2024)
Ethical & Secure AI Ecosystem	SBP, SECP, MoITT, Industry Bodies	Develop national AI ethics charter for finance; mandate fairness tests & bias audits; strengthen cybersecurity for AI models	≥ 80 % AI models audited for bias by 2029; zero critical AI-security incidents reported	McKinsey & Company (2024); SECP (2024)

Source: Authors' own.

of Pakistan (SECP) can carry out three AI-finance sandbox cohorts, namely, e-KYC/AML, underwriting, and consumer support. There can be exit criteria in each of the cohorts, which must have production deployment in 12 months. Some of the key performance indicators (KPIs) include a 40% reduction in the turnaround time (TAT) for onboarding, a 25% decrease in fraud losses, and maintaining a complaint rate of 0.1% or lower. The creation of open banking frameworks will also allow safe and voluntary sharing of data, which can provide AI models with more data to execute more accurately and generate insights.

It is also necessary to build trust with consumers/customers. Awareness campaigns and transparency programs would assist consumers understand the advantages and restrictions of AI and will alleviate doubt and promote its use. A combination of all these measures would enable Pakistan to establish a strong, ethical, and future-ready AI ecosystem, which will transform the banking environment in the country and make it inclusive and accountable.

SBP and the Securities and Exchange Commission of Pakistan (SECP) can carry out three AI-finance sandbox cohorts, namely, e-KYC/AML, underwriting, and consumer support."

TABLE 4: ECONOMIC GROWTH OUTLOOK

Section	Key Points	Implications for Pakistan's Banking Sector
AI in Pakistan's Banking Landscape	<ul style="list-style-type: none"> Over 100 million Pakistanis remain unbanked (SBP). Growing digital adoption post-COVID. Need for financial inclusion, efficiency, and better customer service. 	AI can fill gaps in access, reduce costs, and enable personalized, data-driven banking experiences.
Transformative Applications of AI in Banking	<ul style="list-style-type: none"> AI chatbots provide 24/7 assistance, reducing operational costs. Real-time pattern recognition strengthens cybersecurity. Alternative data enables inclusion of unbanked and informal workers. AI tailors offers using behavioral and transactional data. AI forecasts demand, churn, and optimal resource allocation. 	Improves service quality, boosts inclusion, strengthens security, and enhances strategic planning.
Opportunities for Pakistan's Banking Industry	<ul style="list-style-type: none"> Chatbots in Urdu/local languages can onboard rural users. Automation of KYC², compliance, and back-office tasks reduces costs up to 25%. AI supports AML, transaction monitoring, and real-time reporting. 	Enhances access, efficiency, and regulatory alignment across the sector.
Challenges to AI Adoption	<ul style="list-style-type: none"> Weak digital and regulatory frameworks. Shortage of AI/data science expertise. Outdated core banking limits AI adoption. Low awareness and fear of automation. 	Requires capacity-building, legal reforms, modern IT infrastructure, and consumer education.

Source: Authors' own

² As of June 2025, SME lending in Pakistan reached PKR 691 billion across approximately 277,000 borrowers, up from PKR 641 billion in 2024 (State Bank of Pakistan [SBP], 2025; Karandaaz Pakistan, 2025). The microfinance sector reported 6.37 million active borrowers, with women comprising 46 % (Pakistan Microfinance Investment Company [PMIC], 2024; Pakistan Microfinance Network [PMN], 2023), while the World Bank (2025) estimated 9.3 million borrowers out of a potential market of 40.9 million. Thin-file borrowers remain widespread, as only 6.7% of adults are covered by private credit bureaus (World Bank, 2019).

Challenges to AI Adoption in the Banking Sector

The use of AI in the banking sector in Pakistan faces a number of challenges despite its potential to be effective. The absence of strong digital infrastructure and the all-encompassing data privacy laws is one of the most urgent issues. Cybersecurity systems and fragmented data systems are harmful to both institutions and customers and restrict the scale of the adoption of AI-driven services.

The second acute issue is a lack of qualified specialists who could create, implement, and support AI systems. There is a notable AI skills and data science talent shortfall paired with insufficient ethical governance structures in the banking industry, which represent critical elements of safe and successful AI deployment. Moreover, even now, most Pakistani banks still use legacy core banking systems that are not easily compatible with the current AI platforms, which creates technical and operational inefficiencies.

Digital literacy and customer confidence are also some of the obstacles. Consumers, especially in the rural regions, are unwilling to use automated system to make financial choices because they have limited knowledge about AI technologies. These obstacles will have to be overcome through strategic spending on infrastructure, capacity building, regulatory modernization and consumer education.

Conclusion and Policy Directions

Pakistan's National AI Policy 2025 provides a framework for translating the potential of AI into tangible value within the banking and financial sector. There are real immediate benefits to its adoption such as automation of processes, development of better fraud/risk analytics, ability to provide services at scale, and a plausible way to have a macro pick-up via productivity and inclusion.

To actualize this potential, though, will entail the project a step beyond pilot-level activity to domain-wide rewiring of the workflows and data pipelines and controls, supported in four execution imperatives: (i) of fit-to-purpose governance (model risk management, privacy, auditability), (ii) of regulatory sandboxing and self-creating regulative rules to de-risk experimentation, (iii) of shared market infrastructure (open banking and a secure financial big-data exchange) to overcome data fragmentation, and (iv) of human-capital investment.

A pragmatic sequencing can begin by focusing on high-ROI use cases: KYC/ AML automation, credit card fraud detection and AI- assisted service to modernize and further protect consumer protection around legacy cores. Similar awareness and transparency programs are needed to create trust, especially with underserved populations being the focus of inclusion programs. Course corrections should be driven by international collaboration and strict KPI follow-up (e.g. automation levels, AI-enabled loans volumes, fraud losses).

TABLE 5: PROPOSED ACTION MATRIX

Instrument	Owner(s)	Legal Hook	Definition of Done (DoD)	KPI (2026-2030)	Budget / Funding	Risks & Mitigation
Regulatory sandbox 2.0 (AI-finance cohort)	SBP, SECP	Updated sandbox rules	3 cohorts; cohort themes: e-KYC, AML, underwriting	≥10 pilots to production; TAT↓ 40%	Regulator opex + NAIF grants	Model risk requires pre-deployment model cards
Open Banking v1.0 (read + payments)	SBP/SECP/ MoITT	Rules + API standards	APIs live at 6 largest banks	50M monthly API calls; complaint rate <0.1%	Industry capex	Data breaches liability & cyber requirements
Financial Big Data Exchange (FBDE)	MoITT + PBA + universities	Data-sharing regulation	Federated learning infra launched	20 banks/ fintechs connected; 5 reference datasets	NAIF + industry	Re-identification differential privacy, audits
Model Risk Management (MRM) circular	SBP	Prudential regulations	MRM policy in all banks	100% of tier-1 banks pass MRM audit	Bank opex	Drift quarterly monitoring, challenge function
Capacity programs (NIBAF/PBA)	SBP, PBA, HEIs	Training MoUs	2,000 staff/-year certified	FTEs in data/ML ↑; modelers in 10 banks	Public-private	Brain drain bonded training grants

Source: Authors' own



Under the Base adoption pathway, this study estimates a GDP-level uplift of ~1.25% (0.6–1.9%) by 2030, conditional on open-banking take-up, model-risk controls, and data-sharing compliance. The policy should then be a living framework and treated by policymakers and industry through sandbox and production telemetry evidence. Through a years-long campaign of government and regulatory coordination, and market participants joining forces, Pakistan will have an opportunity to turn its domestic financial sector into an example of responsible, inclusive AI at scale in an emerging economy. Other policy imperatives include:

- The government ought to establish a working committee within the AI Council (or collaborating with the SBP and SECP) that deals with the implementation of AI policy measures in the financial services. This organization would create special roadmaps with banking, insurance, and capital market, and establish goals (KPIs), such as the percentage of processes automated or percentage growth of AI-based loans and track development.
- When implementing the National AI Fund (NAIF) and Innovation Fund, policymakers are encouraged to set funding demands on projects that directly relate to financial inclusion.
- SBP and SECP come up with and issue guidelines or regulations on AI in their sectors. Rules ought to be flexible – setting sandboxes to allow the process of innovation to proceed gradually and learn before the policy is cast in stone.
- A partnership of AI Hubs (universities) and the financial industry could be facilitated by the government to establish a Financial Big Data Exchange – a secured data-sharing system that lets banks and fintechs submit anonymized data to feed a crowd-sourced AI model training.
- Capacity-building programs that are in line with Pillar 2 and particularly those of the financial sector should be done by regulators and industry

associations (Pakistan Banks Association, etc.). This includes integrating AI modules in training organizations such as NIBAF (National Institute of Banking and Finance) Pakistan to train bankers, conduct awareness trainings for bank CEOs and board members on AI strategic adoption (to create top-down buy-in), and implementing certification programs through universities or CoE-AI such as AI in Finance.

References

1. Accenture (2023). Generative AI in Banking: Unlocking Productivity.
2. Arain, A. L. (2025, July 30). Pakistan approves 1st national AI policy, moves to create 'complete AI ecosystem'. Anadolu Agency. [aa.com.tr](https://www.aa.com.tr)
3. Beck, T., Levine, R., & Loayza, N. (2000). Finance and the Sources of Growth. *Journal of Financial Economics*.
4. Choudhury, A., et al. (2022). AI in banking: Enhancing efficiency and customer service. *Journal of Banking Technology*, 5(1), 45–61.
5. Chung, V., & Lerner, L. (2025, March 27). How banks can turn AI's promise into real impact: Rewiring business areas with AI in mind can propel banks out of 'pilot purgatory'. McKinsey & Company. <https://www.mckinsey.com/industries/financial-services/our-insights/banking-matters/how-banks-can-turn-ais-promise-into-real-impact>
6. Dawn. (2025, January 15). SBP finalizing AI guidelines for financial sector. <https://www.dawn.com/news/1906849>
7. Deloitte. (2021). AI and the financial services industry in Singapore. Deloitte Insights.
8. Digital Rights Foundation (DRF). (2025, August). Analysis of Pakistan's National AI Policy 2025 (summary via Dawn: "Governing AI"). DRF/Dawn. [dawn.com](https://www.dawn.com)

9. Dilawar, I. (2025, August 13). Pakistan unveils national AI policy to boost innovation, jobs and ethical governance. Arab News. arabnews.com/arabnews.com
10. Financial Conduct Authority (FCA). (2021). Transforming financial regulation with AI.
11. Giovine, C., Lerner, L., Thomas, R., Singh, S., Kakulavarapu, S., & Chung, V. (2024, December 9). Extracting value from AI in banking: Rewiring the enterprise. McKinsey & Company. <https://www.mckinsey.com/industries/financial-services/our-insights/extracting-value-from-ai-in-banking-rewiring-the-enterprise>
12. Google Public Policy. (2023). An AI opportunity agenda for Pakistan. https://publicpolicy.google/research/pakistan_ai_opportunity_agenda_en.pdf
13. Government of Singapore. (2022). National AI Strategy 2.0 (talent development goals). Smart Nation Singapore / Trade.gov. trade.govtrade.gov
14. Government of UK. (2023). AI Skills Programme (AI Opportunities Action Plan) – TechFirst Initiative (announced LTW 2025). Gov.uk / London Tech Week Release.
15. GSMA. (2020). State of the Industry Report on Mobile Money 2020.
16. IMF (2024). Artificial Intelligence and the Global Economy.
17. Intel & CBSE. (2021, July 29). Intel launches 'AI For All' initiative in collaboration with CBSE, Ministry of Education (Press coverage). The Economic Times (India). [economictimes.indiatimes.com](https://economictimes.indiatimes.com/economictimes.indiatimes.com)
18. Jones, A., & Patel, R. (2021). FinTech and financial inclusion: A global perspective. International Journal of Finance and Economics, 36(4), 789–802.
19. King, R. & Levine, R. (1993). Finance and Growth: Schumpeter Might Be Right. Quarterly Journal of Economics.
20. Levine, R. (1997). Financial Development and Economic Growth: Views and Agenda.
21. McKinsey & Company. (2019). Artificial Intelligence: Implications for China's financial sector.
22. Ministry of Information Technology and Telecommunication (MoITT). (2025). National Artificial Intelligence Policy 2025. Government of Pakistan. <https://moitt.gov.pk>
23. Monetary Authority of Singapore (MAS). (2020). AI in finance Guidelines for responsible use.
24. NITI Aayog. (2021). Responsible AI for All: Strategy for India.
25. Pakistan Institute of Development Economics (PIDE). (2025, October 2). Experts project 7–12% GDP growth, 1 million jobs from Pakistan's new AI policy by 2030. Pakistan Today (Profit) (APP Report). profit.pakistantoday.com.pk
26. Pakistan Ministry of IT & Telecom. (2025). National Artificial Intelligence Policy 2025 (Policy Document). Government of Pakistan.
27. Patel, N. (2025, June 9). Turning our AI skills ambition into action. techUK Insights. techuk.orgtechuk.org
28. PwC (2023). Global Artificial Intelligence Study: Exploiting the AI Revolution.
29. PwC India. (2022). How AI is reshaping financial services in India.
30. Smith, J. (2023). Globalization and its impact on financial markets. Routledge.
31. State Bank of Pakistan & Pakistan Today. (2025, April 27). SBP to finalize guidelines for responsible AI use in Pakistan's financial sector. Profit by Pakistan Today. profit.pakistantoday.com.pk



32. State Bank of Pakistan (2025). Customer Onboarding Framework.
33. State Bank of Pakistan. (2024). Financial Stability Review 2024. <https://www.sbp.org.pk/FSR/2024/Chapter-3-2.pdf>
34. State Bank of Pakistan. (2025, April). Financial Stability Review 2024 (excerpts reported in Dawn/Profit). Dawn News "Regulations for AI use in banks on the cards" by S. Iqbal. dawn.com
35. Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. Science, 354(6317), 1288–1292.
36. The Express Tribune. (2024, November 14). Pakistan's digital economy set for growth, AI to contribute \$10b to \$20b by 2030 (News Desk report on AI Convergence Summit). The Express Tribune. tribune.com.pktribune.com.pk
37. UNESCO & NSPP Pakistan. (2025). National capacity-building workshop on AI Policy and Strategy (overview of draft AI Policy). UNESCO/NSPP Report.
38. URAAN Pakistan, Ministry of Planning. (2025). AI Techathon Problem Statement: Fintech (AI-powered financial inclusion for Pakistan's unbanked). uraanpakistan.pk
39. Werner, J. (2025, August 12). Pakistan Approves Landmark AI Policy 2025 to Drive Digital Transformation. BABL AI News. babl.ai/babl.ai
40. World Bank (2023). Digital Financial Inclusion in South Asia.
41. World Bank. (2023). Digital Progress and Trends Report 2023 (Press Release: "Accelerated by COVID, AI, Digitalization Still Uneven"). World Bank Group. worldbank.org/worldbank.org
42. Asian Development Bank. (2024). Trade-based money laundering pilot in Pakistan: Annual summary 2023–2024. <https://www.adb.org/>
43. Banking Mohtasib (Ombudsman) Pakistan. (2025, April 22). BMP provides relief of Rs 1.65 billion to banking customers in 2024 [Dawn News reprint]. <https://www.dawn.com/>
44. Financial Monitoring Unit (FMU) Pakistan. (2020). Yearly statistical report 2020. <https://www.fmu.gov.pk/docs/2020/Yearly-Report-2020.pdf>
45. Retail Banker International. (2023, September 19). AML false positives remain above 90% globally, banks turn to AI for relief. <https://www.retailbankerinternational.com/>
46. State Bank of Pakistan (SBP). (2023, March 22). BPRD-04/2023: Fraud and risk control framework for banks. <https://www.sbp.org.pk/bprd/BPRD-04-2023.pdf>
47. Dawn. (2024a, May 25). 64 pc Pakistanis now have bank accounts – SBP survey. <https://www.dawn.com/news/1885077>
48. Dawn. (2024b, Nov 7). Gender gap in mobile wallet ownership widens as digital finance grows. <https://www.dawn.com/news/1917762>
49. World Bank. (2025, June 30). Microfinancing Pakistan's women entrepreneurs: A chance for a better life. <https://www.worldbank.org/en/news/feature/2025/06/30/microfinancing-pakistan-s-women-entrepreneurs-a-chance-for-a-better-life>



Appendix

Methodology for AI Impact Scenarios in Pakistan's Financial Sector

Conceptual Framework

The projection model is based on the established theoretical linkage between financial development, technological adoption, and economic growth. Two foundational economic frameworks underpin this approach:

1. Financial Intermediation Theory (Levine, 1997; King & Levine, 1993): Financial sector efficiency improvements, through lower transaction costs, enhanced risk assessment, and broader credit access, contribute to economic growth by mobilizing savings and improving resource allocation.
2. Productivity-Based Growth Models (Solow, 1957; Romer, 1990): Total Factor Productivity (TFP) increases, such as those arising from AI-driven automation, are transmitted to aggregate output via higher efficiency in production processes.
3. In this context, AI serves as a technological shock improving productivity and inclusiveness within Pakistan's financial sector, leading to measurable GDP-level effects.

2. Credit Deepening Channel

Credit lending enhances the GDP by multiplier effect. AI tools and based scoring widens approach to the incremental lending.

$$\text{Uplift}_{\text{credit}} = (\text{Credit Growth Increment}) \times (\text{Credit-GDP Elasticity}) \times (\text{Years})$$

The total cumulative effect is explained as the percentage difference in GDP level comparative to the baseline scenario by 2030.

Scenario Construction

The model uses three different scenarios to study AI contribution in the financial sector:

Scenario I: This scenario is also called the low scenario which reflects the partial adoption or initial pilots.

Scenario II: This is called a base scenario about moderate adoption with only major banks integrating AI systems.

Scenario III: This refers to the high scenario which includes full integration of AI across banking, fintech, and regulatory infrastructure.

PARAMETERIZATION AND ASSUMPTIONS

Parameter	Symbol	Source / Rationale	Value (Range)
Financial sector share of GDP	S_f	Pakistan Bureau of Statistics (2023)	3.5%
Annual baseline GDP growth	g_0	World Bank (2023)	3.5%
Productivity gain (AI impact)	P_i	Accenture (2023); PwC (2023)	10–30%
Credit growth increment	C_i	IMF (2024); SBP (2025)	+1–3 pp
Credit–GDP elasticity	ϵ_{C_g}	Beck & Levine (2004); IMF (2022)	0.15
Projection period	T	Vision 2030 AI adoption window	5 years

Model Structure

The model estimates the macroeconomic uplift from AI through two additive channels:

Total GDP Uplift = Productivity Channel + Credit Deepening Channel

1. Productivity Channel

AI boosts the financial sector effectiveness by fraud detection, automation and risk modelling. To see the contribution to the GDP, estimation as

$$\text{Uplift}_{\text{productivity}} = (\text{Financial Sector Share of GDP}) \times (\text{Productivity Gain})$$

Model Computation Example (Base Scenario)

Given: $S_f = 3.5\%$, $P_i = 20\%$, $C_i = 2$, $\epsilon_{C_g} = 0.15$, $T = 5$
 $\text{Uplift}_{\text{productivity}} = 0.035 \times 0.20 = 0.007$ (0.7% GDP)
 $\text{Uplift}_{\text{credit}} = 2 \times 0.15 \times 5 = 1.5\%$

Apply 50% attenuation:

$$\text{Total GDP Uplift} = 0.7\% + (0.5 \times 1.5\%) = 1.25\%$$

Assumptions

The model is semi-quantitative designed for scenario examination instead of deterministic prediction. This model excluded the variables which have indirect effects, like employment or consumption growth; and undertakes constant elasticities and linear effects. It runs under the assumption that real-world outcomes depend on regulatory and technological readiness. ■

BRIDGING THE GAP

Turning Compliance into Culture



Contributed exclusively by:

**Federal Ombudsperson Secretariat
for Protection Against Harassment
(FOSPAH)**

Trust is the real currency that keeps workplaces running, and in banking, it holds exceptional value. Every interaction, every approval, every client exchange depends on it. This allows teams to function smoothly in an environment built on precision, timelines, and hierarchy. However, trust doesn't just come from systems; it comes from feeling safe within them. Most banking spaces are calm, structured, and efficient, but also guarded. People speak carefully, avoid confrontation, and maintain composure. Over time, silence becomes a form of professionalism. Yet that same silence can sometimes hide discomfort.

Through the cases and experiences handled by the Federal Ombudsperson Secretariat for Protection Against Harassment (FOSPAH), a recurring pattern has emerged, many employees, particularly women, choose not to speak up about harassment. Not because they are unaware of their rights, but because they fear being labeled "difficult" or risking their careers. That quiet hesitation says a lot about what our workplaces value, and what they overlook.

This article draws on those real cases and experiences to reflect on how financial institutions can move from compliance on paper to protection in practice. It explores the cultural barriers that keep employees silent, the value of empathetic enforcement, and how FOSPAH continues to help bridge that gap, turning silence into safety and policy into trust.

Representation and Reality of Inclusion

Across Pakistan's banking sector, progress toward gender diversity has been steady but uneven. While women are increasingly visible in entry and mid-level roles, their representation drops sharply in senior management and board positions. This imbalance is not always the result of overt exclusion, but of long-standing institutional habits and structures designed at a time when women's participation in finance was minimal, and which have been slow to evolve.

It was this recognition that led the State Bank of Pakistan (SBP) to introduce its "Banking on Equality Policy", a framework meant to turn that quiet imbalance into conscious reform. The policy set out to make women's participation not symbolic, but structural. It asked financial institutions to increase women's workforce ratio from 13% to 20% by 2024, to ensure at least one woman sits on every board, and to expand women's presence as branchless banking agents from 1% to 10%.

“Real compliance begins not in documents or posters, but in culture, where representation is lived through participation, and policy is felt through protection.”

The intent was broader than numbers. The SBP envisioned women's financial inclusion as a pillar of economic stability, instructing banks to establish Women's Financial Services Departments, place women champions at 75% of customer touchpoints,

and conduct gender sensitivity training to challenge ingrained bias. The results so far show movement in the right direction. Over 13,000 women have been hired, and representation has grown from 13% to 17%, with women's hiring increasing by 43% compared to men's 9%¹. Yet even in this progress, a telling pattern remains: most institutions have appointed one woman to their boards, fulfilling the letter of the directive, but rarely more. That is where the question arises: is inclusion being pursued as a policy target, or as a value?

From FOSPAH's perspective, this distinction lies at the heart of workplace equity. The Protection Against Harassment of Women at the Workplace Act, 2010, protects all employees, but it is women in male-dominated fields who often face the sharpest end of silence. Real compliance, therefore, begins not in documents or posters, but in culture, where representation is lived through participation, and policy is felt through protection.

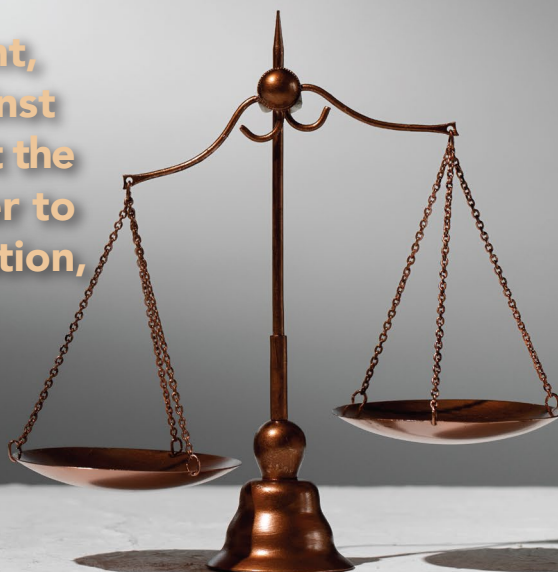
The Law in Practice

Representation without protection is rarely sustainable. Recognizing that inclusion is incomplete without security, Pakistan enacted the Protection Against Harassment of Women at the Workplace Act, 2010, a landmark law affirming every employee's right, regardless of gender, to work in an environment free from intimidation or bias.

The Act defines harassment broadly, encompassing any unwelcome sexual conduct, whether verbal, physical, or non-verbal, that interferes with an employee's dignity or creates a hostile work setting. With its 2022 amendment, the law went further to address gender-based discrimination, acknowledging that inequitable treatment or exclusion can be just as damaging as overt harassment. To operationalize these protections, the Act requires all organizations, including banks and other financial institutions, to constitute Inquiry Committees of three members, one of whom must be a woman, to investigate complaints and recommend action.

¹ <https://financialallianceforwomen.org/news-events/making-womens-financial-inclusion-a-policy-priority-an-interview-with-the-state-bank-of-pakistan/>

“With its 2022 amendment, the law [Protection Against Harassment of Women at the Workplace Act, 2010] went further to address gender-based discrimination, acknowledging that inequitable treatment or exclusion can be just as damaging as overt harassment.”



Oversight and appellate authority lie with the FOSPAH, which is a quasi-judicial body empowered to adjudicate cases of harassment and gender-based discrimination. FOSPAH holds jurisdiction over federal institutions and trans-provincial organizations, a category that includes banks operating nationwide. It not only reviews appeal against internal inquiry decisions but also ensures that organizations comply with the spirit and purpose of the law.

FOSPAH's Lens on Workplace Culture

Despite significant progress, the distance between policy and practice remains quietly visible. Between 2023 and 2025, the FOSPAH Karachi received 29 cases which originated from the banking sector. The figure is not alarming, rather, it is revealing. It reflects a sector that has taken structural steps to comply with the law, but continues to face challenges in translating that compliance into everyday confidence.

Within many financial institutions, women still navigate complex professional hierarchies where hesitation often replaces reporting. The decision to stay silent is rarely about unawareness of rights, it is shaped by concerns about perception, career stability, and the subtle costs of speaking up. For some, leaving quietly feels easier than being misunderstood. These choices do not expose institutional failure, but rather point to a system still learning how to listen with intent.

“Between 2023 and 2025, the FOSPAH Karachi received 29 cases which originated from the banking sector. The figure is not alarming, rather, it is revealing.”

This quiet reality was echoed in one of FOSPAH's banking cases. While the complaint could not be proven under the legal threshold of harassment, the Forum's concluding remarks were telling:

“29. ...This matter, though largely administrative, highlights an opportunity for the Bank to take proactive measures to foster a more inclusive and harmonious workplace culture... A compliance report indicating the measures taken by the Bank's management to ensure a conducive work environment should be submitted to this Forum.”

The observation captures the essence of the challenge; progress cannot rest on procedural closure alone. True inclusion is measured not when the law has been satisfied, but when its spirit is fully alive within the workplace.

Likewise, a recent FOSPAH decision illustrates how these tensions manifest in practice. The Complainant, a Group Head of Business with over twenty years of service, alleged that her forced resignation and denial of severance benefits constituted gender-based discrimination. FOSPAH, after extensive proceedings, found that the Bank forcing her resignation to install a male candidate of their own choosing revealed a think Manager, Think Male² bias, a phenomenon recognized by Virginia E. Schein², stating

“This appears to be the result of ‘Think Manager, Think Male’ bias which assumes that managerial success is more closely associated with male traits.’ Women in leadership roles especially in fields or positions typically dominated by men, such as in banking, are often subjected to greater scrutiny and skepticism compared to their male counterparts. This skepticism may result in less favorable evaluations, leading to situations where women are unjustly penalized for poor company performance that may not be their fault”

In its landmark order, FOSPAH held:

“22. ...She was the Bank's most senior female employee and the only one to attain her rank

² Virginia E. Schein, A Global Look at the Psychological Barriers to Women's Progress in Management, 57 J. SOC. ISSUES 675, 675-76 (2001) [hereinafter Schein 2001]; Virginia Ellen Schein, Relationships between Sex Role Stereotypes and Requisite Management Characteristics among Female Managers

based on her own merit. Positioned just one level below the President/CEO, her advancement was nevertheless obstructed by the Bank which, due to her gender, established a glass ceiling that limited her upward mobility."

The Forum went on to emphasize that token representation or well-drafted gender policies cannot, by themselves, erase prejudicial mindsets:

"25. A gender policy, token representation on the Board or sporadic payment of benefits to female employees does not automatically eliminate discriminatory practices within an organization."

In addition to imposing penalties on the accused, directions were also given to the Bank, including the constitution of a standing inquiry committee, display of code of conduct, and training of committee member to reinforce a broader truth: structural compliance must evolve into cultural commitment. The case underscores that progress in gender equity is not measured merely by policy existence, but by how confidently employees can seek redress without fear of subtle repercussions.

When viewed through this lens, every unreported discomfort or quiet resignation represents more than an individual loss; it is an organizational cost. Financial institutions invest heavily in cultivating expertise and leadership, however when capable professionals leave in silence, institutions lose not only talent but trust. Ensuring that workplaces feel safe, fair, and responsive is not just a matter of legal compliance, it is a measure of institutional integrity.

“The Complainant, a Group Head of Business with over twenty years of service, alleged that her forced resignation and denial of severance benefits constituted gender-based discrimination.”



“Financial institutions invest heavily in cultivating expertise and leadership, however when capable professionals leave in silence, institutions lose not only talent but trust.”

Credibility Over Compliance: The Next Step Forward

Laws can compel compliance, but awareness nurtures accountability. Recognizing that prevention is as crucial as redress, FOSPAH operates under a dual mandate: not only to adjudicate complaints of harassment and gender-based discrimination but also to prevent their occurrence through awareness, capacity-building, and oversight. Its mission is as much about creating understanding as it is about ensuring enforcement.

In line with this preventive role, FOSPAH has undertaken extensive awareness initiatives, reaching out organizations through workshops, consultations, and institutional partnerships. One notable example is the session conducted in collaboration with the National Institute of Banking and Finance (NIBAF) Pakistan. The session, centered on “Harassment at the Workplace,” was met with an overwhelmingly positive response from participants. The session encouraged open dialogue on gender sensitivity, professional conduct, and the mechanisms available for compensation. Its success has sparked ongoing discussions for future collaborations, aiming to make such capacity-building exercises a consistent feature within the sector’s professional training programs.

Parallel to these awareness efforts, FOSPAH also carries out institutional inspections to assess compliance with the Protection Against Harassment of Women at the Workplace Act, 2010. These inspections examine whether organizations have properly notified inquiry committees, displayed Codes of Conduct, and established internal complaint mechanisms. Encouragingly, the banking sector has demonstrated strong procedural compliance, reflecting a growing institutional awareness of legal obligations.

However, compliance alone does not guarantee effectiveness. The critical question remains: are these mechanisms functioning as intended? Are inquiry committee members adequately trained to handle investigations with fairness, confidentiality, and legal precision? The inspections revealed that while many organizations meet the formal requirements, the quality of implementation varies considerably.

A well-functioning inquiry committee must balance sensitivity with impartiality, ensuring that every complaint is examined with both procedural diligence and an understanding of workplace dynamics. The objective is not to side with the complainant or the accused, but to uncover the truth through due process. This requires

continuous training, not only in the legal provisions of the Act but also in investigative techniques, evidence assessment, and professional conduct.

FOSPAH's preventive mandate, therefore, goes beyond awareness; it is about building institutional capability. A compliant organization is one that does not merely meet statutory requirements but demonstrates confidence in its internal mechanisms. When committee members are well-trained, employees know that if a complaint arises, it will be handled professionally, confidentially, and fairly.

Ultimately, true compliance is measured not by the presence of committees or a displayed code of conduct, it is defined by the credibility of their process. Policies can create structure, but training sustains trust, and in that trust lies the foundation of safer, stronger workplaces.



Equity in Inclusion

As institutions move from procedural compliance to credible implementation, it becomes equally important to reflect on who these mechanisms are meant to protect. The Protection Against Harassment of Women at the Workplace Act, 2010 provides a clear answer, but one that is often overlooked. The s.2 (e) of the Act defines "Complainant" as "any person who has been subjected to harassment." The deliberate use of the word "person" underscores that protection extends to all, men, women, and transgenders. This inclusive approach reflects a principle that lies at the heart of FOSPAH's work: every individual deserves a voice and a fair hearing. The Forum continuously encourages anyone facing harassment or discrimination, regardless of gender or position, to approach it without fear of prejudice or consequence.

However, when viewed through the lens of financial institutions, the conversation around inclusion must also account for structural imbalance. Banking, by tradition and hierarchy, remains a male-dominated field, from boardrooms to branch management. It is within this imbalance that the pursuit of equity becomes not a preference, but a necessity. Equality assumes uniform opportunity but equity recognizes unequal realities and seeks to correct them.

In this context, gender-intentional measures are not about preference; they are about progress. It is not enough to hire women; institutions must also retain them. Retention depends on safety, and safety begins where confidence replaces fear. For that to happen, women must know that if a complaint arises, it will be heard, not questioned. In male-dominated sectors like banking, giving women visible representation on inquiry committees and leadership forums is not an act of bias; it is a necessary correction, because equality cannot thrive in theory, it must be built into the everyday mechanisms that make workplaces fair, credible, and secure.

Equity, therefore, is not an alternative to equality, it is the path that makes equality possible. In sectors where confidence grows unevenly, equity becomes the bridge that transforms legal protection into lived assurance, ensuring that safety, dignity, and opportunity are not privileges, but shared realities.

Conclusion: From Compliance to Conviction

The progress made within Pakistan's financial sector cannot be dismissed, policies have been drafted, frameworks strengthened, and representation slowly widening. Nonetheless, beneath this progress lies a quieter truth: true inclusion is not achieved when women are merely hired, but when they are retained, respected, and heard without hesitation.

For the banking sector, one that is long shaped by male-dominated hierarchies, the path forward demands more than procedural compliance. It calls for cultivating spaces where women feel secure in both their presence and their participation. Hiring women is only the first step; retaining them requires a culture that safeguards dignity, ensures equity in opportunity, and allows their voices to carry weight in decisions that shape their workplaces.

In an environment where confidence and competition intertwine, women do not require favoritism but fairness, systems that recognize the additional hurdles they face and consciously remove them. Preference, in this sense, is not partiality; it is protection, a necessary balancing force in institutions still learning to unlearn inherited biases. A workplace that protects its people is not one that never faces complaints, but one that ensures those complaints can surface without fear.

This is the spirit that anchors FOSPAH's work, translating legal protection into lived assurance. Each awareness session, inspection, and order issued by the forum echoes a simple belief: laws can mandate equity, but it is culture that sustains it.

Institutions that hold the nation's trust, like banks, must prioritize culture above all, because when every employee, regardless of gender, feels safe to speak up, the silence that once concealed discomfort transforms into a culture of confidence. That shift, from silence to certainty, is where genuine progress begins, and where the promise of equity finally becomes real. ■

Add-ons to **SBP POLICY REGIME** July–September 2025

The primary objective of this feature is to highlight changes, or ‘add-ons’ to the SBP policies, on a quarterly basis to provide the readers better comprehension and analysis of the central bank’s policy regime, as well as being an easily accessible time-lined reference guide.

All circulars are easily accessible in the PDF of the Journal, available on the following link on the NIBAF Pakistan website: <https://nibaf.sbp.org.pk>



01

Risk Coverage Scheme for Small Farmers and Underserved Areas

ACFID Circular No. 02 of 2025/ August 20, 2025

<https://www.sbp.org.pk/acd/2025/C2.htm>

02

Climate Risk Fund – I under the World Bank funded RAM Project

ACFID Circular No. 03 of 2025/ September 15, 2025

<https://www.sbp.org.pk/acd/2025/C3.htm>

03

Consolidated Customer Onboarding Framework

BPRD Circular No. 01 of 2025/ July 25, 2025

<https://www.sbp.org.pk/bprd/2025/C1.htm>

04

Regulatory Framework on Recovery Planning

BPRD Circular No. 02 of 2025/ July 30, 2025

<https://www.sbp.org.pk/bprd/2025/C2.htm>

05

Basel Capital Adequacy Framework: Revised Instructions for Credit Risk (Standardized Approach)

BPRD Circular No. 03 of 2025/ September 24, 2025

<https://www.sbp.org.pk/bprd/2025/C3.htm>

06

Facilitation Framework – Benazir Income Support Programme (BISP) Sahulat Account

BPRD Circular Letter No. 17 of 2025/ July 22, 2025

<https://www.sbp.org.pk/bprd/2025/CL17.htm>

07

Implementation of International Financial Reporting Standard 9 (IFRS 9)

BPRD Circular Letter No. 20 of 2025/ September 12, 2025

<https://www.sbp.org.pk/bprd/2025/CL20.htm>

08

Appointment of Primary Dealers/Special Purpose Primary Dealers for Fiscal Year 2025–26

DMMD Circular No. 06 of 2025/ July 09, 2025

<https://www.sbp.org.pk/dmmd/2025/C6.htm>

09

Foreign Exchange Exposure Limit (FEEL)

DMMD Circular No. 07 of 2025/ August 01, 2025

<https://www.sbp.org.pk/dmmd/2025/C7.htm>

10

Rate of Remuneration on Special Cash Reserve Account Maintained with SBP Against Deposits Raised Under Fe-Circular 25 Of 1998

DMMD Circular Letter No. 09 of 2025/ July 31, 2025

<https://www.sbp.org.pk/dmmd/2025/CL9.htm>

11

Rate of Remuneration on Special Cash Reserve Account Maintained with SBP Against Deposits Raised Under Fe-Circular 25 of 1998

DMMD Circular Letter No. 10 of 2025/ September 01, 2025

<https://www.sbp.org.pk/dmmd/2025/CL10.htm>

12

Rate of Remuneration on Special Cash Reserve Account Maintained with SBP Against Deposits Raised Under Fe-Circular 25 of 1998

DMMD Circular Letter No. 11 of 2025/ September 30, 2025

<https://www.sbp.org.pk/dmmd/2025/CL11.htm>

13

Implementation of Performance Evaluation System for Equity Investment Abroad

FE Circular No. 01 of 2025/ August 28, 2025

<https://www.sbp.org.pk/epd/2025/FEC1.htm>

14

Realization of Export Proceeds

EPD Circular Letter No. 07 of 2025/ August 12, 2025

<https://www.sbp.org.pk/epd/2025/FECL7.htm>

15

Revision in Framework for Managing Risks of Trade Based Money Laundering and Terrorist Financing

EPD Circular Letter No. 08 of 2025/ August 12, 2025

<https://www.sbp.org.pk/epd/2025/FECL8.htm>

16

Updated Chapters of Foreign Exchange Manual

EPD Circular Letter No. 09 of 2025/ September 11, 2025

<https://www.sbp.org.pk/epd/2025/FECL9.htm>

17

Prime Minister's Relief Fund for Flood, Earthquake and Other Calamities

FD Circular Letter No.03 of 2025/ September 09, 2025

<https://www.sbp.org.pk/acc/2025/CL3.pdf>

18

Guidelines on Core Information Requirements for Resolution Planning

FIRD Circular No. 01 of 2025/ September 29, 2025

<https://www.sbp.org.pk/FIRD/2025/C1.htm>

19

Mera Ghar - Mera Ashiana Markup Subsidy and Risk Sharing Scheme for Affordable Housing Finance

SH&SFD Circular No. 03 of 2025/ September 24, 2025

<https://www.sbp.org.pk/sme/d/circulars/2025/C3.htm>

20

Cost Sharing Scheme for Electric Bikes and Rickshaws/Loaders

SH&SFD Circular No. 04 of 2025/ September 29, 2025

<https://www.sbp.org.pk/sme/d/circulars/2025/C4.htm>

21

Facilitation of Merchants' Operations

PSP&OD Circular No 02 of 2025/ July 25, 2025

<https://www.sbp.org.pk/psd/2025/C2.htm>

22

Allocation of Subsidy for Raast Person-to-Merchant (P2M) QR Payments

PSP&OD Circular No 03 of 2025/ September 23, 2025

<https://www.sbp.org.pk/psd/2025/C3.htm>

23

Enhancing Digitization Initiatives in Banks

PSP&OD Circular Letter No 01 of 2025/ September 04, 2025

<https://www.sbp.org.pk/psd/2025/CL1.htm>

24

Deposit Protection Mechanism for Digital Banks

DPC Circular No. 01 of 2025/ September 30, 2025

<https://www.dpc.org.pk/Circulars/2025/C1.pdf>

25

Member Institutions of Deposit Protection Corporation (DPC)

DPC Circular Letter No. 03 of 2025/ September 30, 2025

https://www.dpc.org.pk/Circulars/2025/CL_3.pdf

A MAP OF THE NEW NORMAL

HOW INFLATION, WAR, AND SANCTIONS WILL
CHANGE YOUR WORLD FOREVER

By: Jeff Rubin

Synopsis

During the pandemic, government deficits skyrocketed to record highs while central banks primed the printing presses and the time has come to pay for it. The ramifications of international COVID-19 spending could potentially last for decades, and inevitably, one of the first consequences will be that central banks will lose control of interest rates, and subsequently, growth and inflation targets. The genie will be out of the bottle.

Tracking trade wars and kinetic wars, central banks and runs on banks, pipelines blown up and startups knocked down, *A Map of the New Normal* gives us a glimpse of a near future that will look very different from the recent past. It reminds us that our mortgage rates and job security, our grocery bills and investments, are all tied to events set in motion by governments, corporations, and black swans around the world.

Reviews

"Rubin both delights and delivers.... a very thoughtful...great read. I give his latest book two thumbs up—way up."

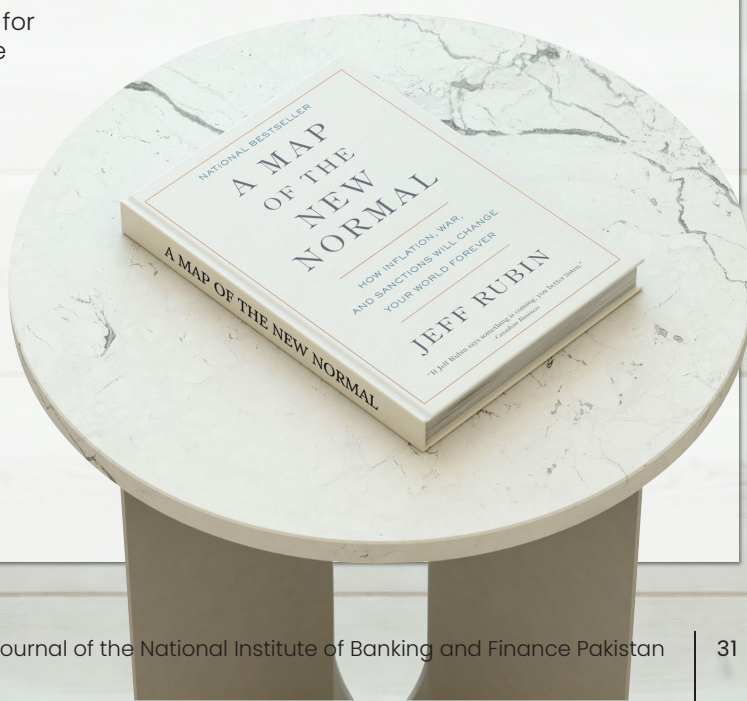
—*Policy Magazine*

"Masterful, compelling, and alarming.... Rubin is a gifted writer. He explains complex macroeconomic issues lucidly and with a flare for metaphor.... [He] is undeniably charting a future that looks both probable and imminent."

—*Winnipeg Free Press*

About the Author

Jeff Rubin is an award-winning economist and author. He spent two decades as the chief economist at CIBC World Markets where he received 10 citations as Canada's top ranked financial market economist. Rubin was one of the first economists in the world to predict triple digit oil prices back in 2005. Considered one of the world's leading energy experts at the time, his insights have made the front pages of the *New York Times* and the *Wall Street Journal*, and he has been cited in several high-profile publications including *Newsweek* and *The Economist*.



ISLAMIC SUSTAINABLE FINANCE

POLICY, RISK AND REGULATION

Edited by: Razali Haron, Mohd Ma'Sum Billah, Rusni Hassan, Nor Razinah Mohd Zain

Synopsis

This book opens up the discussion by offering a Shari'ah-compliance perspective. It is a primer on how Islam addresses and offers solutions to the challenges facing us within the spirit of maqasid al-Shari'ah, among others, in tackling poverty, food supply, health and well-being, quality education, reducing inequalities, responsible consumption and production and climate action. It discusses the connection between Islamic sustainable finance and the Sustainable Development Goals (SDGs) and explains the strategic action plan of Islamic banks towards achieving Islamic sustainable finance.

The book considers the relevant policies and regulations, evaluating the role of regulators, discussing jurisprudential solutions and focusing on the role of Islamic banking standards in relation to Islamic sustainable finance. Further, it explores the issue of risk mitigation and the effective role of Takaful. It presents a practical case study from the banking industry in Malaysia, which evaluates the carbon footprint of bank loans and climate change risk mitigation. Finally, it highlights sustainable finance innovations in an Islamic concept.

The book will appeal to advanced students, researchers and scholars of Islamic banking and finance, as well as those concerned with environmental social governance and Sustainable Development Goals research. Regulators, policy makers and Shari'ah-compliant practitioners will also find it to be a useful guide.

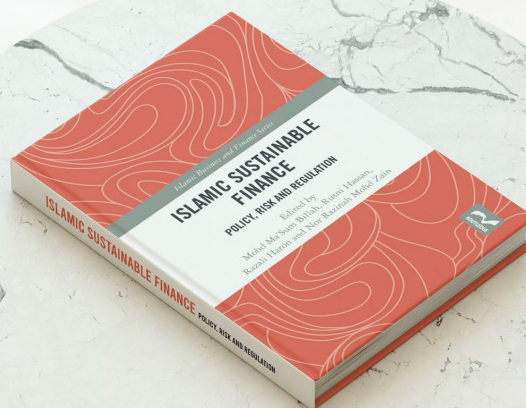
About the Editors

Mohd Ma'Sum Billah is Senior Professor of Finance at the Islamic Economics Institute, King Abdul Aziz University, Kingdom of Saudi Arabia.

Rusni Hassan is Professor of Finance and the Dean at the IIUM International Institute of Islamic Banking and Finance, International Islamic University, Malaysia.

Razali Haron is Associate Professor of Finance at the IIUM International Institute of Islamic Banking and Finance, International Islamic University, Malaysia.

Nor Razinah Mohd Zain is Assistant Professor of Law at the IIUM International Institute of Islamic Banking and Finance, International Islamic University, Malaysia.





PARACHA EXCHANGE

On Every Transaction Of
 **MoneyGram** &  **ria** Money Transfer

Get

Rs **500**

FREE *Easyload*

Scan The QR Code To Download The App



UAN: 111-900-000

 www.parachaexchange.com



Scan & Get Started!

AL Habib
digitalaccount

No need to go
to the Bank

Account
Opening
made easy

Visit the
Bank AL Habib
website &
open your
AL Habib Digital
Account



AL Habib Digital Account Get, Set, Go...

A fast and convenient way for Pakistanis to
open their bank account online anytime,
anywhere in just 5 easy steps.

Please get your biometric verification done via the AL Habib Biometric
Verification App or by visiting any Bank AL Habib branch after your
Digital Account has been opened.

24/7 Call Center: ☎ (+92 21) 111-014-014

Facebook Twitter Instagram YouTube /BAHLOfficial | www.bankalhabib.com



Bank AL Habib Limited

رشتہ بھروسے کا