Journal of The Institute of
Bankers
Pakistan
Volume 91 | Issue # 1 January - March 2024

Reformatory Policies of Fast Emerging Economies of South East Asia – A Lesson to Learn

Emerging Digital Banking Trends for 2024

The Future of AML
AI-Driven Predictive Analytics and Beyond

IBP

HABIBMETRO

SATH HAI KOI TU MUMKIN HAI HAR BAAT

APKA HABIB AAPKE SAATH

DIGITAL BANKING | SAVING PLANS | HOME & AUTO FINANCE
CARDS & DISCOUNTS | PAYROLL BANKING

111-1-HABIB(42242)
www.habibmetro.com | STAY AHEAD

editorial

Cash is King, No Matter if it's Physical or Digital

Continued over thousands of years, the human beings' desire to Look, Feel and Tilt (LFT) the physical cash has never been dampened irrespective of changes in socio-political, economic, and religious regimes. Despite major shifts that have taken place in the modes of transportation, communication, industrialization, mechanization and automation, the cash (coins and banknotes) is still maintaining its earlier days' glory, as these are the most liquid form of money which the people want to keep at hand because it helps to satisfy the need for goods and services, when and where it arises.

An old proverb, 'money makes the mare go', might have been coined to reflect upon the strength of money in terms of the functions it performs. Since medieval times, it has been an established norm that the horse (mare) is lame for lending, however, on payment of cash the horse will take you anywhere you want to go. An Urdu proverb *'Nau naqad na terah udhaar'* (Rs nine in cash are better than Rs thirteen of credit), also highlights the significance of dealing in cash.

The design and shape of cash has always been subject to change depending upon the region and regime. In rich countries, coins were made of gold, carrying stamp of the state for authenticity, which were later on replaced by metal coins other than that of gold, and even by printing banknotes on secure paper to meet the massive demand for cash. Notwithstanding the region and regime, the state ownership and authentication of coins and banknotes have always been the core factors behind their unconditional acceptability, irrespective of metallic composition of coins and design of banknotes.

Similarly, the latest emerging form of cash, i.e., digital cash, which is also known as e-cash or soft cash, bears the sponsorship by the Central Bank of a country as well as its financial institutions. Instead of keeping hard cash in wallets, people may now keep their disposable funds in cellular phones (e-wallets) and make payments when and where needed through scanning the QR codes and tapping upon the Point of Sales machines (POS). Digital cash is more liquid and safer than coins and banknotes. In e-cash, transactions of cash take place instantly without inviting the support of cash in transit vehicles and banks' cash counters. The digital cash is debited/ credited to the respective accounts in real time by a single click/ tap with all record of transaction duly captured.

The digital cash is rapidly replacing the hard cash by virtue of its safer and securer transactional features. It gives higher level of confidence and comfort to both the buyers and sellers in terms of keeping an instant updated record of outgoing and incoming cash balances. Moreover, it keeps the e-cash handlers free from the worries of encountering counterfeit coins and banknotes, error in counting of the banknotes and snatching and theft incidences, common in the case of hard cash. Moreover, the auditable trail of transactions is always available with each transaction of e-cash, any discrepancy/ dispute in transactions, if detected, can be addressed quickly and amicably.

The only thing missing in e-cash is the feature of LFT, the tangible aspect of handling coins and banknotes. In digital cash the added advantage is that without i) Looking, ii) Feeling and iii) Tilting the cash i.e., performing the three features customarily used to establish genuineness of hard cash, the holders of e-cash always enjoy genuine cash balances at their disposal even without counting the e-cash, because the counting and accounting of e-cash are built-in features of the e-wallet.

The cash is never going to lose its supremacy and be the king in any shape/ kind, even in its currently emerging digital form, except that we collectively say 'yes' to barter system, which is not too distant future, particularly with the advent of super computers supported by the AI tool. One should not forget that 'say yes to barter system' or 'say no to cash', will tend to bring a revolution in transactions of goods and services among the people. The materialism associated with cash transactions will evaporate, and the barter transactions will intrinsically carry the brands of sympathy, empathy, love and affection. It will be very practical then, to reflect upon emotions while preparing/ providing goods and services according to the preferred choices of your preferred buyers or otherwise.

Muhammad Mazherul Haq
Editor

Ravi Exchange

راوی ایکسچینج نے کیا ایک اور وعدہ پورا

MEGA PRIZE WINNER

بن گیا کروڑپتی

خوش نصیب

عدنان ساجد

گاؤں لالکے تحصیل حافظ آباد

Western Union | ria Money Transfer | MoneyGram. money transfer | SOHNI DHARTI REMITTANCE PROGRAM

Contents

10

COVER STORY

The Future of AML
AI-Driven Predictive Analytics and Beyond

CONTRIBUTORS

Owais Ahmed Qureshi is MBA Banking and Finance from KUBS (Karachi University Business School) and has experience of more than 10 years in various Financial Institutions. He is currently serving as Manager Compliance in a Fintech EMI. He is actively engaged in writing articles related to Anti-Money Laundering and its regime globally.

Akram Khatoon is a prominent senior banker who was the founder and President/ CEO of First Women Bank Ltd. from 1989 to 2001. She is a prolific writer on topics of current interest such as banking, finance, financial inclusion and economy. She was formerly the Chancellor of Jinnah University for Women, and is currently advisor and member of the Board of Governors at the university.

Rahim Zulfiqar Ali is a Microsoft Certified Trainer (MCT), CEO Excel Basement, MS Excel & POWER BI Trainer & Consultant, Microsoft Office Specialist Expert in Excel 2016 & 2019 (MSOM), and Member of International Association of Microsoft Certified Trainers (IAMCT). He has been actively involved in training and teaching professionals at leading organizations and institutions as a visiting faculty member.

IBP NEWS CORNER

05 Training Roundup (January-March 2024)

06 Highlights of Marketing & Sales Activities (January-March 2024)

EMERGING TECHNOLOGIES

16 Dissecting Digital

ECONOMIC POLICY

20 Reformatory Policies of Fast Emerging Economies of South East Asia – A Lesson to Learn

THE INSTITUTE OF BANKERS 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 "The Institute of Bankers Pakistan"

DIGITAL BANKING

24 Emerging Digital Banking Trends for 2024

REWINDING THE REEL

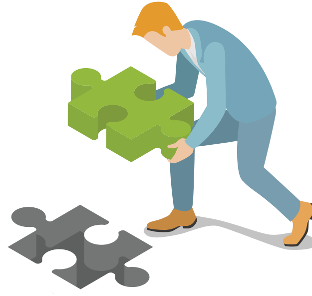
30 The Growth Pattern and Potential of Non-Crop/ Non-Farm Sector

YOU ASKED FOR IT

35 Deposit Protection Corporation – FAQs

SBP POLICY REGIME ADD-ONS

39 Add-ons to SBP Policy Regime (January - March 2024)

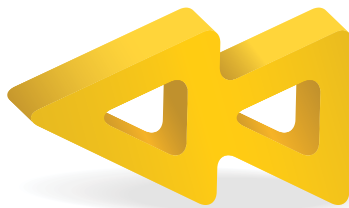


BOOK REVIEWS

42 Direct: The Rise of Middleman Economy and the Power of Going to the Source

43 Impacts of Scientific and Technological Innovation on Currency Internationalization

44 The World Ahead 2024: The Economist's Predictive Guide to the Year Ahead



PUBLISHED BY
The Institute of Bankers Pakistan
Moulvi Tamizuddin Khan Road
Karachi 74200, Pakistan
92 (21) 111-000-IBP (427)
www.ibp.org.pk

HEAD OF PUBLICATIONS/EDITOR
Muhammad Mazherul Haq

SENIOR MANAGER PUBLICATIONS
Shahla Naqvi
92 (21) 35277 529
publications@ibp.org.pk

Advertising
Muhammad Akram
92 (21) 35277511
m.akram@ibp.org.pk

Design
M. Jahangir Ishaq | S. Haris Jamshaid

Copyright

The Institute of Bankers Pakistan

All rights reserved. The material appearing in this journal may not be reproduced in any form without prior permission of The Institute of Bankers Pakistan (IBP).

General Disclaimer
IBP Journal is based on contributions from individuals & information obtained from local and international print and electronic media. IBP 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 IBP as an institution. In no circumstances IBP and its team members would be liable for any incidental or consequential damage that may occur from the use of information contained in IBP publication(s).

You are invited to send your write-ups to the Senior Manager Publications on topics of interest relating to banking and allied fields. Publishing is subject to approval by IBP.

To: The Institute of Bankers 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-IBP (021-111-000-427) | **EMAIL:** publications@ibp.org.pk | **WEBSITE:** www.ibp.org.pk

Training Roundup

January - March 2024

During the quarter January - March 2024, IBP conducted 21 Regular and 21 Customized trainings and e-Learning programs. More than 1060 participants were trained during this period.

The Institute has also conducted below-mentioned certification programs:

- 'Certified Sanction Specialist Professional (CSSP)', 7 participants benefited by the program.
- 'Certificate Course in AML/CFT Compliance', 12 participants attended this training.

Significant topics of trainings included: AML/CFT Requirements for Financial Institutions (FI) & Money Service Business (MSB); Data Sciences and Machine Learning; Impact of Digital Innovation on Banking; Advanced Credit Risk Analysis; Understanding National Risk Assessment and Applying a Risk Based Approach; Government of Pakistan Ijara Sukuk; SME Regulatory Framework and SBP Schemes; and Fraud Prevention and Detection.

Assessment Update

Between January - March 2024, IBP conducted 08 recruitment, 06 promotion, 01 assessment, and 02 post-training assessment drives for various commercial banks throughout Pakistan. Over 8400 participants were assessed during this period, representing individuals across a spectrum of levels, from OG IV to OG I.

During the same quarter, IBP also independently organized the ISQ Fast Track Program for one of the Commercial Banks.

HIGHLIGHTS OF MARKETING & SALES ACTIVITIES

January – March 2024

During the quarter January–March 2024, the IBP Marketing and Sales team worked with universities to improve the knowledge of the prospective workforce in the banking and financial industries. With this goal in mind, IBP inked ISQ Fast Track Memorandums of Understanding (MoU) with several well-known Pakistani universities. The first MoU of this quarter was signed with Bahria University Islamabad on January 11, 2024 by Dr Khalid Mumtaz, Principal of Bahria Business School, and Mr Riaz Nazarali Chunara, CE of IBP.

On January 15, 2024, IBP and NED University of Engineering and Technology inked an MoU in Karachi. Mr Ghazanfar Hussain, Registrar of NED UET, and Ms Khawlah Usman, Director Marketing and Sales IBP, signed the MoU in the presence of Dr Sarosh Hashmat Lodi, Vice Chancellor of NED UET, and Mr Riaz Nazarali Chunara, CE IBP.

An MoU was signed between IBP and the University of Management and Technology (UMT) in Lahore on January 22, 2024. Dr Naveed Yazdani, Dean of HSM - UMT, and Ms Khawlah Usman, Director of Marketing and Sales IBP, signed the MoU. On the same day, another MoU was signed with the Hailey College of Banking & Finance in Lahore. Prof. Dr Khalid Mahmood, Vice Chancellor of the University of the Punjab, and Ms Khawlah Usman, Director of Marketing and Sales IBP, signed the MoU. The last MoU of this quarter was signed on February 01, 2024, between IBP and Hamdard University in Karachi. Mr Kaleem Ahmed Ghias, Registrar of Hamdard University, and Mr Riaz Nazarali Chunara, CE of IBP, signed this MoU.

Apart from ISQ Fast Track MoUs, the IBP Marketing and Sales team organized a strategic alliance by signing an MoU with the Balochistan Rural Support Program

(BRSP). The MoU signing ceremony was held on February 13, 2024. Mr Riaz Chunara, CE IBP and Dr Tahir Rasheed, CEO of the BRSP, signed this MoU at the BRSP office in Quetta with the aim to promote skill development, capacity building, and job placement in Balochistan.

On March 11, 2024, IBP and Punjab Police signed an MoU in Lahore. Punjab Police joined IBP in launching a bespoke training program aimed to increasing AML and CFT capacity. This effort also includes specialized soft skills training sessions to help improve overall effectiveness. Furthermore, Punjab Police is eager to launch a 'Train the Trainers' initiative, enabling internal talent to cascade knowledge within the organization. Dr Muhammad Tariq Rustam Chohan, Additional Inspector General Punjab Police and Mr Riaz Chunara, CEO IBP signed this MoU.

The IBP Marketing and Sales team collaborated with the IBP Academics and Examination department to offer an ISQ Revamping awareness session. This session was held online on January 16, 2024, and was also broadcast live on IBP's social media channels, where HR and Learning & Development heads from various banks participated and shared their perspectives.

Young bankers and university students attended this session through live broadcast.

The IBP conducted a promotion test for BAJK personnel on February 08, 2024, in Muzaffarabad, Azad Kashmir. The total number of participants were 39 and the test was computer-based. IBP has been successfully conducting promotion tests for the Bank of Punjab (BOP) staff for the past four years. This time, two tests were conducted on February 19, 2024 and March 10, 2024. A total of 3,517 employees participated in these online promotion tests. An online promotion test was also arranged for Karakoram cooperative bank on February 24, 2024 where 238 employees marked their attendance.

In pursuit of Bank AL Habib's vision for providing career growth opportunity to its employees. IBP conducted 4 different assessment tests of BAHL employees during this quarter. Assessment test for their aspiring Area Manager was conducted on February 25, 2024 where 186 area managers were assessed. Further assessments were arranged for their Branch Managers on March 03, 2024 in Karachi, Quetta, Faisalabad, Lahore, Peshawar, Hyderabad, Islamabad & Multan for 288 Branch Managers, for their 312 Operation Managers on March 10, 2024 in Lahore, Multan, Karachi & Islamabad and Operation Manager Certification Program (OMCP) on March 14, 2024 in Lahore, Multan, Karachi & Islamabad for 74 employees.

Apart from these tests, IBP also conducted the ISQ Stage 1 exams under Fast Track route of 86 Graduate Trainee Officers (GTO) of Bank AL Habib from March 25 to 28, 2024. Exams were conducted in Karachi and Lahore at Bank AL Habib's premises.

The Marketing and Sales team organized 19 classroom and 1 online training in remote cities under pre-book model where 801 participants from different banks and organizations participated. The cities for these remote trainings were Sahiwal, Khaddar, Lahore, Sukkur, Faisalabad & Multan, Peshawar, Gujranwala, Bahawalpur, Mirpur AJK, Vehari, Islamabad, Gujrat. Apart from pre-book trainings, 23 calendar trainings were arranged in this quarter where 323 participants participated. Batch 4 with Sindh Bank Limited for Certified Cash Officers (CCO) and Certified General Banking Officers (CGBO) was also started in March (CCO March 02-03, 2024 – CGBO March 06-10, 2024) in Karachi. The training program in Sukkur will be executed in the month of April 2024.

MOU - Bahria University Islamabad

MOU - NED UET

MOU - UMT Lahore

MOU - Hailey College Lahore

MOU - Hamdard University

BRSP - MOU in Quetta

MOU - Punjab Police

Gujrat Training

Certified Cash Officers Program for Sindh Bank Limited - Karachi

Certified General Banking Officers Program for Sindh Bank Limited - Karachi

SBP's Legal / Regulatory Requirements of Account Opening - SBP BSC Sukkur

Ensuring Sbp Regulatory Compliance in Branch Banking Operations - Bahawalpur

Financial Risk Management - Vehari

Financial Inclusion of Persons With Disabilities (PWDs) - SBP BSC Hyderabad

IBP's Representation on Editorial Committee of The Asia Pacific Association Banking Institutes (APABI)

In its pursuit to foster regional collaboration with international banking institutions for knowledge sharing and to promote excellence, IBP continuously seeks opportunities to maximize its engagement on various global platforms.

We are pleased to announce that Ms Shahla Naqvi, Sr Manager at IBP has been opted as a member of the Editorial Committee of APABI Newsletter. The Committee comprises of 7 representatives from Banking Institutions from Asia Pacific countries and is responsible for suggesting improvements in the contents and coverage of the APABI Newsletter issued quarterly, and to provide written material on latest policy initiatives adopted by the member countries, particularly related to the financial sector. Additionally, the Committee also provides support in elevating the quality of collaboration among APABI members which include 21 banking institutes in the Asia-Pacific Region.

The newsletter may be accessed at the following link on th APABI website:

https://apabi-net.org/Detail?id=47&c=r

The Future of AML

AI-Driven Predictive Analytics and Beyond

In the ever-embryonic landscape of financial crimes and money laundering, the traditional methods of detection of ill activities and their prevention are proving insufficient. Criminals recurrently adapt, using classy techniques to launder illicit funds. To fight in this battle, financial institutions (FIs) and regulatory bodies are shifting towards the artificial intelligence (AI) and predictive analytics and equip these powerful utensils in their anti-money laundering (AML) arsenal.

By: Owais Ahmed Qureshi

As we deep dive into the future of AML, it becomes crystal clear that AI-driven predictive analytics is an impressive game-changer. Here we will explore the transformative potential of AI in the empire of AML, shedding light on its applicability, challenges, and the macro level landscape of AML techniques and software solutions that join AI's capabilities.

Artificial Intelligence (AI) in Mitigating Money Laundering

Artificial Intelligence itself is a combination of different technologies. One of the technologies are DL (deep learning), computer vision, ML (machine learning) and (NLP) natural language processing. These subsets of AI enable machines to analyze huge chunks of data, identify patterns, and make predictions without explicit programming.

To understand this further, we mostly encounter the question at first: How does AI differ from traditional rule-based AML systems? After the efforts of many years where financial institutions have installed systems, conventional rule-based AML systems depend on predefined rules and thresholds to flag suspicious transactions. While these systems are reliable to a certain extent, they struggle with the distinction and complex nature of modern financial transactions. AI, on the other hand, learns from historical data that allows to understand the pattern or behavior which helps in evolving money laundering techniques. It outshines in identifying subtle, previously unknown patterns indicative of illicit activities.

Benefits of AI in AML

Some of the benefits which have been witnessed after the introduction of AI in financial system are as follows:

i. Enhanced Accuracy and Efficiency: The algorithms embedded in AI tools can analyze massive datasets with much precision, reducing false positives and negatives in AML alerts. It enables automation of routine tasks, such as transaction monitoring and frees up human resources for more complex investigations.

ii. Real-time Detection: Solutions equipped with AI can provide real-time alerts, enabling proactive measures to be taken on real time basis on suspicious activities which are accurately identified.

iii. Adaptability: In earlier days AI was not trained sophisticatedly. These models evolve over time, continuously improving their ability to detect new money laundering methods.

iv. Transaction Monitoring: AI-powered transaction monitoring systems analyze customer transactions in real-time. They consider multiple factors, not limited to transaction history, customer profiles, and external data sources, to identify potentially suspicious activities. AI-based system detects unusual transaction patterns for a customer who typically makes small purchases but suddenly initiates several large international wire transfers.

v. Customer Risk Assessment: AI also contributes in assessing the risk associated with each customer. By examining data related to customers' financial behavior, AI can categorize them into low, medium, or high-risk groups. An AI model may flag a customer as high-risk if it discovers that they frequently conduct transactions with the entities in countries known for high money laundering risk or are in any financial sanctions list.

vi. Enhanced Due Diligence: By using tools that are AI-driven, due diligence processes can speed up customer onboarding by automating document verification, background checks, and beneficial owner identification. A KYC (Know Your Customer) system which is equipped by AI can enable financial systems to quickly verify the authenticity of identity documents and cross-reference them with watch-lists available.

vii. Anomaly Detection: Tools equipped with AI can identify unusual patterns or outliers in transaction data, helping investigators pinpoint potentially suspicious activities that may go unnoticed by traditional methods. It detects a sudden surge in cash deposits at an ATM, suggesting potential structuring of deposits to evade reporting requirements.

viii. Regulatory Reporting: Usage of AI streamlines the process of generating and filing Suspicious Activity Reports (SARs) by automating the identification and documentation of suspicious activities. If proficiently used, an AI system can compile a comprehensive STR report by aggregating relevant transaction details, customer information, and contextual data.

ix. Fraud Detection: AI also contributes to fraud detection by identifying fraudulent activities, such as account takeovers (buying of KYCs/hacking) and phishing scams. AI helps in detection of a series of login attempts from different geographical locations within a short time frame, indicating a potential account takeover attempt.

Practical Examples from Across the Globe

The financial sector, including banks, credit unions, payment processors, and regulatory bodies have accepted the use of AI to facilitate their customers more elegantly and quickly. Some of the user cases are defined below on how AI is currently being utilized globally in the financial sector.

i. HSBC: One of the world's largest banks implemented an AI-driven AML system to enhance transaction monitoring. This execution resulted in a significant reduction in false positives, allowing investigators to focus on genuinely suspicious activities.

ii. FinCEN: Financial regulator 'The Financial Crimes Enforcement Network' (FinCEN) in the United States employs AI algorithms to analyze suspicious activity reports (SARs) and identify emerging trends in

AI learns from historical data that allows to understand the pattern or behavior which helps in evolving money laundering techniques. It outshines in identifying subtle, previously unknown patterns indicative of illicit activities.

money laundering. This data-driven approach aids in shaping regulatory policies and priorities.

iii. Danske Bank: In response to a major money laundering scandal, Danske Bank applied AI-powered solutions to their systems to strengthen its AML framework. AI is used for transaction monitoring, customer due diligence, and risk assessment.

Predictive Analytics in AML: A Transformative Approach to Detecting Financial Crimes

To negate money laundering, staying ahead of money launderers is a constant challenge. Conventional anti-money laundering (AML) methods, usually depend on the systems that are rule-based, which are not capable of capturing the ever-changing maneuvers employed by illegitimate actors. Entering into the predictive analytics, a powerful tool that binds the potential of machine learning and artificial intelligence (AI) to transform AML efforts, can identify the maneuvers by the money launderers.

Predictive analytics is a data-driven AI method that stimulates historical data to make informed forecasts about future events. In case of AML processes, predictive analytics involves the use of advanced algorithms and statistical models to identify patterns, anomalies, and potential money laundering activities. Unlike rule-based systems which mostly rely on predefined criteria, predictive analytics can adapt and transform, making it predominantly effective in detecting new and sophisticated money laundering schemes.

Predictive Modeling Adoption

Predictive models are architected to analyze vast amounts of customer profiles, transaction data and other relevant information to make forecasts about the likelihood of a transaction or customer being involved in illegitimate activities. Now we will try to understand how predictive modeling works in AML.

i. Data Collection and Preprocessing: Predictive models start by collecting and preprocessing data from various sources. This includes transaction records, customer information, historical AML alerts, and external data such as news articles and regulatory updates.

ii. Feature Engineering: In this step, data scientists identify relevant features or variables that could be indicative of suspicious activities. These features can include transaction amounts, frequency, geographic locations, customer behavior, and more.

iii. Model Training: Once the data has started to gather, predictive models are trained using historical data. During this type of exercise, the model learns to recognize patterns and relationships in the data that are linked with money laundering.

iv. Prediction and Scoring: After performing training to a certain extent, the model is ready to make predictions. When a new transaction or customer profile is entered into the system, the model assigns a score or possibility indicating the likelihood of it being involved in money laundering. Higher scores suggest a higher risk level.

v. Machine Learning Algorithms for AML: Predictive analytics in AML relies on a range of machine learning algorithms. These algorithms are designed to identify complex patterns and correlations within the data. Some popular machine learning algorithms used in AML are mentioned below.

- Random Forest: This ensemble learning algorithm combines the predictions of multiple decision trees to improve accuracy and reduce overfitting. It is particularly useful for handling large and complex datasets in AML.

- Gradient Boosting: Gradient boosting algorithms like XGBoost and LightGBM are known for their high predictive accuracy. They are often used to uncover delicate patterns in AML data.

- Neural Networks: Deep learning models, including artificial neural networks, outshine at dispensation unstructured data such as text and images. In AML tools, they are used for tasks like analyzing transaction narratives and news articles (adverse media) for potential money laundering indicators.

Benefits and Challenges of Predictive Analytics in AML

Predictive analytics offers several advantages in the fight against money laundering. Some of them are defined below.

i. Enhanced Accuracy and Efficiency: Predictive models can analyze massive datasets with precision, reducing both false positives and false negatives in AML alerts. This leads to more effective use of investigative resources. Automation of routine tasks, such as transaction monitoring and risk assessment, frees up human investigators to focus on complex cases that require expert judgment.

ii. Real-time Detection: Predictive analytics can provide real-time alerts, allowing financial institutions to take immediate action when suspicious activities are identified.

iii. Adaptability: Predictive models continuously evolve as they learn from new data. This adaptability is crucial in detecting emerging money laundering tactics.

However, implementing predictive analytics in AML is not without its challenges and some are also itemized below.

i. Data Quality: Predictive models heavily rely on data quality and consistency. Inaccurate or incomplete data can lead to unreliable predictions and can be volatile as it allows wrong decision making at analyst level.

ii. Model Interpretability: Understanding why a model makes a specific prediction can be challenging. It requires proper understanding of system alerts and indicators. Model interpretability is essential, especially in regulatory environments where explanations for decisions are required.

iii. Bias Mitigation: Predictive models can inadvertently inherit biases present in historical data. Since all patterns are suspicious, but not for ill purposes, it can deceive the analyst. Efforts must be made to identify and mitigate these biases to ensure fairness.

Natural Language Processing (NLP) in AML

Money launderers often leave digital footprints in the form of text data, whether it is in transaction narratives, emails, or news articles (adverse media). Natural Language Processing (NLP), a subdivision of AI, stresses on the collaboration between humans and machines using natural language. In the territory of AML, NLP has proven to be invaluable in the following ways:

i. Analyzing Unstructured Data: Most of the data relevant to AML investigations is unstructured, such as adverse media reporting on financial crimes. NLP algorithms can scrutinize through vast amounts of text data to identify keywords, phrases, and sentiment that may indicate money laundering activities. An NLP model can detect references to suspicious financial transactions or individuals involved in financial wrongdoing in media reports.

ii. Monitoring Communication: NLP can be deployed to have surveillance on internal and external communications for red flags. This comprises analyzing emails, chat logs, and other forms of written communication within an organization to identify potentially illicit discussions or transactions e.g., detecting discussions about evading AML controls or using coded language in emails.

iii. Enhancing KYC Processes: NLP can also assist AML processes in automating Know Your Customer (KYC) and due diligence steps by extracting relevant information from customer documents and verifying their authenticity. For example, automatically extracting and verifying identity information from scanned ID cards, passports and driver's licenses.

Network Analysis and Graph Theory

Money laundering is rarely a solo effort; it is frequently conducted by the complex networks of individuals and entities. Network analysis and graph theory, both rooted in advanced mathematics and AI, enable AML analysts to visualize and analyze these complicated connections. Some of the key functions are elaborated below.

i. Analyzing Complex Money Laundering Networks: By representing relationships between individuals, accounts, and transactions as nodes and edges in a graph, AML analysts can identify key nodes (entities) that play pivotal roles in money laundering schemes. For instance, detecting that a particular individual is connected to multiple accounts involved in suspicious transactions, indicating their centrality in the network.

ii. Visualizing Data: Graph-based representations allow for spontaneous visualization of relationships, making it easier for AML specialists to comprehend the structure of money laundering networks. For instance, creating network visualizations that show the flow of funds between accounts and individuals.

iii. Identifying Anomalies: Graph theory can be used to detect irregularities or unusual patterns within networks, potentially exposing hidden money laundering activities. For instance identifying clusters of accounts that frequently exchange funds in a circular manner, a common money laundering tactic.

Emerging Technologies in AML

Since technology is in constant evolution, and rapid advancing technologies are finding their way into AML practices. Some of them are defined below.

i. Blockchain: While often associated with cryptocurrencies, blockchain technology

also has applicability in AML processes as well. Blockchain's transparent and immutable nature can assist in tracing the flow of funds and identifying suspicious transactions like analyzing the blockchain ledger to track the movement of cryptocurrencies involved in money laundering.

ii. Internet of Things (IoT): IoT devices produce vast volumes of data, which, when analyzed with AI, can provide valuable insights for AML efforts. Such as detecting unusual patterns in sensor data from IoT devices in a manufacturing facility that may indicate illicit activities.

iii. Quantum Computing: Although still in its early stages, quantum computing provides exponentially faster data analysis. In AML, this could mean near-real time analysis of vast datasets, such as analyzing years' worth of financial transaction data in a matter of seconds to identify patterns indicative of money laundering.

While emerging technologies fight against money laundering, they also have challenges. Safeguarding the privacy and security of data, addressing ethical concerns, and staying up to date with swiftly evolving technologies are some of the steeplechases that organizations must navigate to fight against money laundering.

Challenges and Ethical Considerations in Leveraging AI For Anti-money Laundering (AML)

As FIs and regulatory bodies advance towards artificial intelligence (AI) to strengthen their AML efforts, they must face the challenges of a host of trials and ethical considerations. While AI holds tremendous potential in the fight against money laundering, it also raises complex issues that demand careful consideration. Some of them are listed below.

i. Data Privacy and Security A key challenge in using AI for AML is ensuring the privacy of individuals whose data is analyzed. AML systems require access to sensitive financial and personal information, and protecting this data from unauthorized access or breaches is paramount. For instance, AML algorithms may unintentionally expose the financial details of innocent individuals if not designed with robust privacy measures. Safeguarding the data used by AI models is essential. Financial institutions must implement strong encryptions to their customers' data, access controls within the organization and cybersecurity measures to protect against data breaches. For instance, unauthorized access to transaction data or customer profiles can lead to privacy violations and data leaks.

ii. Biases and Fairness AI models can inherit biases present in historical data as they are gathered on the certain sandbox style selected data. If not addressed, these biases can result in unfair or discriminatory outcomes in AML decisions e.g., AML algorithms may disproportionately flag individuals from certain demographics, leading to unjust scrutiny.

Ensuring fairness in AML practices is crucial. An AI system that flags transactions from specific regions as suspicious due to historical patterns may inadvertently propagate geographic bias.

iii. Regulatory Compliance AML regulations are subject to frequent changes and updates. Staying compliant with these evolving regulations while implementing AI systems can be a challenging task for the Compliance and AML personnel. For instance, AML systems must adapt to new regulatory requirements, such as enhanced due diligence measures for specific customer segments.

Regulators often require that AML decisions be explainable with facts and be transparent. Ensuring AI models are interpretable can be difficult, especially for complex deep learning algorithms. For example, regulators may request an explanation for why a specific transaction was flagged as suspicious, which can be challenging with black-box models.

iv. Model Validation and Accuracy The accuracy of AI models depends on the quality and quantity of the data used for training. Incomplete or erroneous data can lead to inaccurate predictions. For instance, inaccurate transaction data may result in false positives or missed detections of money laundering activities.

Ensuring the trustworthiness of AI models is crucial. Validation processes must be rigorous to prevent false positives that can overwhelm investigators or false negatives that may lead to money laundering going undetected. If model validation is not executed, it may generate numerous false alerts, straining investigative resource and effect their work quality too.

v. Transparency and Elaborating Ability Understanding how AI models arrive at their decisions can be a challenging task for the handlers, especially with complex deep learning models. Lack of transparency can lead to skepticism and mistrust. Financial institutions may become vulnerable to adopt AI systems that they cannot understand or explain to regulators.

AML decisions often require descriptions for regulatory compliance and customer communication. Ensuring that AI models can provide meaningful explanations is crucial. For instance, regulators may request detailed explanations for why a specific customer's transaction was flagged as suspicious.

vi. Ethics in Investigations AML investigations must respect the presumption of innocence. Algorithms should not unfairly label individuals as criminals without having strong evidence. Automatically freezing assets or reporting individuals as

Although still in its early stages, quantum computing provides exponentially faster data analysis. In AML, this could mean near-real time analysis of vast datasets, such as analyzing years' worth of financial transaction data in a matter of seconds to identify patterns indicative of money laundering.

suspicious, based solely on algorithmic alerts, can harm innocent parties and leads to discomfort from the customers.

Balancing AI automation with human oversight is essential. Human experts should play a crucial role in reviewing and interpreting AI-generated alerts. AML investigators may need to review AI-generated alerts and make final determinations about their validity as they are the ones who make decisions at the end.

The Road Ahead: AI-powered AML Strategies Transforming the Fight Against Money Laundering

The road ahead for AML is marked by AI-powered strategies that promise to revolutionize how we detect and prevent financial crimes.

As technology advances, predictive analytics will continue to evolve, becoming more accurate and efficient. Machine learning models will polish their ability to detect even subtle patterns indicative of money laundering, reducing false positives and improving the effectiveness of AML programs. Predictive models will integrate more contextual data, such as transaction history and customer behavior to make more informed estimates.

Addressing the challenge of model interpretability, AI researchers and developers will focus on creating models that are more transparent and can provide detailed explanations for their decisions. This will enhance trust in the systems and regulatory compliance. Explainable AI models will be able to provide clear rationales for flagging specific transactions or customers.

AI-powered AML systems will increasingly operate in real-time, allowing for immediate detection and response to suspicious activities. This will enable financial institutions to proactively prevent money laundering before it occurs. Real-time monitoring will enable instant alerts for transactions that deviate from normal behavior, preventing illicit funds from being moved.

In conclusion, the future of anti-money laundering (AML) efforts lies in the transformative power of artificial intelligence (AI), predictive analytics, and emerging technologies. As financial crimes become increasingly sophisticated, traditional rule-based systems are proving inadequate. However, AI-driven predictive analytics offer enhanced accuracy, efficiency, and adaptability in detecting illicit activities.

Moreover, as we are still in the initial phase of adopting Artificial Intelligence in our businesses and financial sector, it requires huge efforts in terms of finances and computing equipment which still creates a friction in seamless adoption of the technology. Besides adopting AI, we need to espouse more sophisticated techniques to convert in AI within the available systems to make it much more effective and affordable.

Dissecting Digital

Amid a swathe of emerging technologies that promise to change the world, banks must consider which ones to invest in adopting and which to ignore as fads. How do they go about that?

Artificial Intelligence (AI), chatbots, the metaverse, ChatGPT, Machine Learning (ML), virtual assistants... this roll call of recent major tech advancements demonstrates just how frantically the Fourth Industrial Revolution is impacting businesses – and how difficult it can be to assess whether these developments will actually add value to their offerings. Major steps forward in technology are nothing new. In fact, they have been shaping the banking sector for centuries – from the first wire transfer between Boston, New York and Chicago in 1871 to the unveiling of the first ATM in Enfield, north London, in 1967 and the rise of online and mobile banking in recent years.

However, there is no doubt that digital transformation within the sector is a far more pressing and complex challenge today – driven by three core factors. The first is customer demand – with many consumers now expecting to conduct the bulk of their banking activities digitally. The second is the appeal of reduced costs and more streamlined operations, while the third is the opportunity to gain a competitive advantage, not least as an increasing number of new entrants join the market.

How can banks grasp whether a new tech development is the next big gamechanger for the sector – or whether it's likely to be a passing fad that shouldn't draw their attention away from their current strategic path?

To begin, let's look at technology's role in an optimistic vision of the financial near-future. According to Dileep Jacob, Senior Vice President, Global Operations, Fingent, quoted in *Fintech* magazine: "Digital and emerging technologies are transforming the front, middle, and back-office; AI and automation are proving to be valuable; even the cloud is evolving." Jabob sees far-reaching implications for automation and AI, envisioning a world where "automation and artificial intelligence will replace human thinking".

"Customers can share their financial data with other apps and vice versa via open banking," he continues. "Real-time intelligent data integration is also possible with hybrid cloud (cloud/server) solutions. Everything from data entry to loan form processing is done by machines using basic algorithms. RPA [robotic process automation] enables banks to save money, reduce human error, and speed up procedures. In addition, it can help financial organizations to improve compliance and auditing by having all data in one location."

Jacob points to how AI, Internet of Things (IoT) and blockchain are being leveraged by banks, explaining that "financial markets permit algorithmic or automated trading in the Stock Exchange thanks to AI and ML. Automation has increased due to new data processing and analytic tools and technologies, particularly in asset rebalancing. Robot-enabled platforms advise customers on investing and asset management. Regtech systems monitor transactions and spot outliers that could suggest fraudulent behavior".

> "Achieving the cultural change of going digital is often harder than merely implementing a new technology."
>
> **Elizabeth McCaul,**
> **Member, Supervisory Board, ECB**

Clearly the Fourth Industrial Revolution has much to offer to banks. But it is important to think critically about digital and AI adoption and understand its limitations as well as strengths.

Unpicking Promises

Three of the hottest tech topics at present – AI, the metaverse and ChatGPT – all purport to meet the changing desires of consumers while at the same time delivering the efficiencies that banks desire. But are they really built for the banking sector?

When it comes to AI, banks have been trying for years to implement AI programs to improve the customer experience and fend off increasing competition from new entrants. However, most of these efforts have found only modest success so far, playing out mainly through automated call-center responses, digital chatbots, tailored marketing and automated product applications.

Dr Viktor Dorfler, Senior Lecturer, Information & Knowledge Management, University of Strathclyde Business School, says these limitations are a result of the fact that AI has really been "oversold" as something that can "think", when in reality it simply moves a customer along a process based on some set parameters.

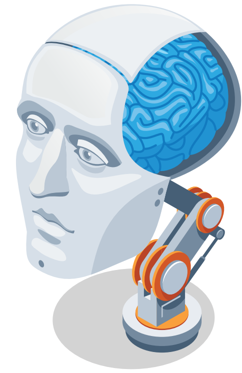
"True artificial intelligence is where a machine can perform something that we humans will do by thinking," Dorfler explains. "That's very important – the machine must carry out a function that would require us, and therefore it, to make a conscious decision.

"This is the area where there is undoubtedly the most over-promise in banking. Do we really have machines in banking that can think? The answer is no. And it is not happening anytime soon, because I don't believe that is even possible."

Giles Cuthbert, Managing Director, Chartered Banker Institute, agrees AI's abilities have been somewhat overpromised, adding that we may actually be headed for "another AI winter" as its limitations lead organizations to turn their attentions elsewhere.

"Do we really have machines in banking that can think? The answer is no. And it is not happening anytime soon."

Dr Viktor Dorfler,
Senior Lecturer, Information & Knowledge Management,
University of Strathclyde Business School



"If you look at the history of AI, starting in the 1950s we saw huge investment, largely because of the Cold War. We had all these people over-promising about having robots that would fight the Cold War for us and all this sort of stuff," he explains. "And then there was this overwhelming let-down, and so people moved away from AI because it hadn't delivered as expected. We entered an AI winter. We then had the rise of the internet, which led people once again to turn their attention to AI and its potential. But that was hit by the dot.com bubble and so again it drifted away. And I think now, having seen it rise again, the tech community is actually expecting another AI winter – whereby investment in AI will really freeze up – and this time it's because we've got to a stage where we realize AI can do certain things but it can't do more. We've realized its limitations.

"So, if you are asking me about AI's 'positive future', that's not what I'm getting from the research community, which is worrying about a fairly negative and bleak view," he adds. "We've got to the stage where it's quite good and it can do some pretty useful things. People will implement that. But they won't spend a lot of money on research and development over the coming years because it's reached its limits. And then it will probably come back in 15 years or so, after another winter."

It's clear then, that while ML and AI may well deliver process and accessibility benefits to banks and consumers alike, the more impactful and longer-term benefits hyped by so many in recent years may be much harder to achieve.

Exploring the Metaverse

The metaverse is another tech development currently grabbing the attention of the banking sector.

Pitched as "an emerging 3D expression of the internet where the digital and physical worlds seamlessly integrate", users enter the immersive virtual space to play games, shop, attend concerts and even make payments. Despite a lack of a standard definition of what the metaverse actually is – should it really include hugely popular game worlds like Fortnite as well as more niche applications like The Sandbox? - millions of Gen Z and Gen Alpha gamers are already interacting in what is hailed as a multi-billion dollar market, which some suggest will contribute more than $3 trillion to global GDP by 2031.

While high-profile attempts to build metaverse applications — such as Meta's multi-billion-dollar investments that led to shares slumping by 25 percent — seem to have dropped out of the news cycle in favor of AI, many businesses are considering how they can operationalize the metaverse.

A metaverse evangelist would suggest that banks could tap into the metaverse to create immersive customer experiences, such as virtual branches that enable people to open bank accounts and access services without having to walk into a physical bank. However, in reality, most banks enable customers to access products and services digitally without visiting a branch. It's not clear what additional value the metaverse can bring to the equation.

Alternatively, banks could establish themselves as central stakeholders in providing the financial infrastructure on which the metaverse depends. The problem here is that the consumers who operate in the metaverse are likely already 'banked', meaning they are not really 'new' potential customers. And metaverse transactions are siloed within proprietary platforms, making payments interoperability a technical nightmare with little financial incentive for individual firms to open up their worlds to rival offerings. All of this further brings into question the value of banks investing heavily in entering the metaverse.

Churning Stuff Out

ChatGPT also promises much in the way of impacting the banking sector, but again has limitations. It can be used to automate a variety of applications, including chatbots, virtual assistants, and content creation tools. It can also aid banks in managing risk by analyzing vast amounts of data and identifying potential risk factors. But again, its limitations – particularly around being able to 'think' and to accurately respond to demands without causing high-risk errors – mean it may also be over-promising in terms of how it might revolutionize the sector.

"Sure, it can churn stuff out, but it can't count," explains Cuthbert. "If you ask it to count the number of letters in a sequence, it can't do it."

Making the Right Calls

This over-promise can put huge pressure on banks' digital strategies – bringing financial as well as reputational risk at a time when they are already struggling to digitally transform. Recent research by Jim Marous, retail banking influencer and author, revealed that only 11 percent of bankers believe their digital transformation is currently meeting expectations, while 47 percent are not meeting expectations or are "lost".

All of this doubt begs the question: how should banks identify the tech that will actually make a difference and deliver a return on investment? In a recent speech, Elizabeth McCaul, Member, Supervisory Board, European Central Bank (ECB), outlined a number of best practices she believes banks should adopt regarding digital transformation and implementing new tech.

Citing ECB research, she said: "Almost all the banks we surveyed now have a digital transformation strategy in place. However, perhaps more surprisingly, these strategies are not always fully developed and are often supported by only limited investment.

"Given the multifaceted nature of digital transformation, banks generally struggle to isolate and quantify the cost and revenue impact of their digital transformation strategies. In addition, the average budget that these banks dedicate to the digital transformation is still limited, accounting for only 4 percent of their operational costs in 2021," she added.

McCaul explained that most banks have co-ordination bodies in place to steer their digital strategies, yet this often results in a reliance on outsourcing and external partnerships which can expose them to "increasing risks around third-party dependency, money laundering, fraud and cybersecurity".

For McCaul, banks need to take a holistic approach to their digital transformations, which entails a widespread shift in business models and corporate culture that also encompasses governance and risk management frameworks.

"Achieving the cultural change of going digital is often harder than merely implementing a new technology," McCaul cautioned.

Marous echoes this holistic approach, calling for a transformation of banks' back-end processes and reinvigorated leadership model: "[This] new leadership model will require that directors and all top management constantly reinvent their skills and roles. Without a new leadership model, banks may not survive as we know them today. Understanding the basics of communication, prioritization, investment and project management is even more important during times of change. They are the foundation for a culture that embraces the potential of digital transformation as opposed to simply providing lip service." ■

Exploring ChatGPT's Limitations

Much lauded as likely to revolutionize information services from journalism to call centers and press offices, we tested ChatGPT's limitations with a simple request to produce a 200-word article on the recent collapse of Silicon Valley Bank.

The result returned was somewhat alarming:

As of my knowledge cutoff in September 2021, Silicon Valley Bank (SVB) was not known to have failed. SVB is a well-established financial institution that has been operating successfully for several decades. It specializes in providing banking services to the technology, life sciences, and venture capital industries, and has played a significant role in supporting the growth and innovation of numerous companies in the Silicon Valley region.

Topicality: A major limitation is the ability to react to changes and updates, particularly around fast-moving stories, as demonstrated by its lack of knowledge that the bank had collapsed.

However, it's important to note that the financial industry is subject to various factors and risks that can impact any institution, including economic downturns, market fluctuations, regulatory challenges, and mismanagement.

Where the response cannot directly answer the request, copy drifts off into broader related topics, as demonstrated by the move here to the broader FS sector.

While I am not aware of any specific failures or issues related to SVB, it's always possible for unforeseen circumstances or internal challenges to arise that could affect the performance of any financial institution.

Vague and speculative content that is unsubstantiated.

To obtain the most accurate and up-to-date information regarding the current status of SVB, I recommend referring to the latest news, financial reports, or reaching out to SVB directly for any recent developments or changes that may have occurred after September 2021.

This article originally appeared in the Summer 2023 issue of Chartered Banker magazine and is reproduced by kind permission of the Chartered Banker Institute.

REFORMATORY POLICIES OF FAST EMERGING ECONOMIES OF SOUTH EAST ASIA *A LESSON TO LEARN*

By: Akram Khatoon

Since long, Pakistan has been locked up in a situation of economic volatility, infrastructural deficit, financial disaster in public sector entities and growing poverty. Reformatory policies undertaken by different sectors of the economy from time to time failed to bring desired results due to bad governance and corruption at all levels and above all, unnecessary state involvement in the economy.

In the wake of this constrained situation, for an effective turnaround, the country's economic managers need to follow growth strategies of fast emerging economies like China, which also basically being an agrarian economy, started with reformatory policy for their agriculture sector.

Further, in this regard China's very friendly initiative to launch China Pakistan Economic Corridor (CPEC) program , which is a pilot project of Belt and Road initiative for greater economic cooperation with Pakistan, which in the course of time will be beneficial for adjoining South Asian, Middle East and central Asian states also. It has not only in a way introduced China's model of economic activity to boost the economic process in Pakistan, but has also helped ongoing projects and those in pipeline where investment was most needed, particularly projects relating to energy, infrastructure, Gwadar port development, job creation and promotion of social sector activities. But in order to sustain the benefits derived and to harness the future potential, Pakistan needs to replicate reformatory policies undertaken by China and other emerging economies of South East Asia.

To quote, the present issue of opposing corporate farming by farmers of all the four provinces, which is being vehemently urged by our economic managers and legislators for implementation, needs to be looked into the context of China's strategy in this regard.

The Chinese Government, despite 80% of the farmer's reliance on collective farming for their living, thought of land reforms allowing communal land to be leased out to individual households with total freedom of growing crops of their choice and to sell surplus of their produce (above state quota) in the open market. These reforms gave tremendous boost to agricultural production. Further, fast growth of agriculture sector led to growth of agro-based industries not only in rural, but also in urban outskirts. This also motivated the rural work force to move to the industrial area which gave fillip to overall fast growth of the Chinese economy.

For a faster move towards globalization, China started setting up economic zones along its Eastern border during the eighties, which not only gave boost to its exports, but also attracted heavy foreign investment due to sizeable relaxation introduced for taxation and business rules for potential investors.

> **"Reformatory steps to promote consumption driven growth is also the need of the time as adjoining South Asian countries are continuously increasing their market share in exports to economically rich countries and also to the countries within the region. Increased economic activity based on consumption driven growth would attract private foreign investment also."**

In Pakistan's scenario, landless cultivators i.e., 'Haaris', small farms and fresh agriculture graduates should be provided with low cost inputs for producing high-value farm and non-farm products under strict monitoring of Ministry of Agriculture. For ensuring a sustainable irrigation system, a close watch should be on the source of water that is on entire canal network in order to curb menace of diversion of irrigation water to the big farms illegally, as is the practice in all the four provinces. Further, unlike China, stress should be on setting up agro based manufacturing units in rural areas to check flow of population to already overcrowded urban industrial centers. This is essential to curtail unemployment and growing poverty in the rural sector.

For the growth of urban economy, the Chinese government felt the need of giving a simultaneous boost to domestic demand and enhancing household disposable income. Along with maintaining external surplus position and investment, both indigenous and foreign, were diverted for reorienting the economy towards the domestic demand. The twelfth five-year plan devised in 2010 had main focus on enhancing household consumption. For that, wage levels were raised sizably to induce workers to consume more. Apart from raising wage levels, strong social safety nets and incentives to contribute towards pension funds, relieved workers, particularly semi-skilled and unskilled and women from precautionary savings. Thus it prompted them to consume their earnings freely. Resultantly, by 2011, China attained the position of the largest contributors to global consumption growth.

In Pakistan's scenario, no doubt it is not possible in view of already low level of savings (below 11% of GDP) and investment. However, good governance to check unjustified increase in prices and unbridled corruption at all tiers of government offices and state-owned corporation and ensuring unhampered access to various schemes floated for the poor under social safety nets, can give fillip to domestic demand of all goods and services, which is essential for enhancing economic activity in the country through consumers driven growth pattern.

Reformatory steps to promote consumption driven growth is also the need of the time as adjoining South Asian countries are continuously increasing their market share in exports to economically rich countries and also to the countries within the region. Increased economic activity based on consumption driven growth would attract private foreign investment also.

India proceeded with regulatory steps, particularly in the manufacturing sector by lifting licensing requirements in 1991 which were mandatory for entering manufacturing and trade activity and as such foreign competition was totally barred from certain industries, particularly heavy machinery and automobile industry. Thus, removal of licensing requirement and reduction in tariffs attracted heavy foreign investment, particularly in heavy engineering and pharmaceutical and IT industry, which gave impetus not only to capital goods export but also India captured wide global market of IT software and services export, as by 2022 India's export of goods and services stand at 22.79% of their GDP.

> Keeping in view the downturn in global economy, particularly of economically rich countries with grave repercussions on their financial sector, the emerging economies growth model needs to be followed modestly, as recessionary pressure along with revenges of the pandemic, is now gradually moving towards emerging and developing economies."

While looking towards India's growth pattern, Pakistan needs to create a congenial business-doing environment despite its liberalized trade and business-doing policies at work since last one decade. Lack of sustainable infrastructure particularly relating to energy and water supply and most importantly growing terrorism both within and on borders of the country are to be addressed vigorously and earnestly to promote economic activity both in urban and rural sector.

Further, attention is to be paid towards human capital development with focus on development of work force expertise in new technologies in vogue relating to all trades and industry.

Keeping in view the downturn in global economy, particularly of economically rich countries with grave repercussions on their financial sector, the emerging economies growth model needs to be followed modestly, as recessionary pressure along with revenges of the pandemic is now gradually moving towards emerging and developing economies.

Due to fall in demand of its exports, China is faced with a peculiar position of overburdened investments and low productivity, which apart from global recession and COVID pandemic impact, is being caused due to growing aging population and shrinking work force due to restricted population growth policy.

Pakistan on the other hand is faced with high population growth rate particularly of age group of 5 to 35 years, which continues to add to the labor force, thus aggravating the unemployment situation in a scenario of stagnant or rather very low growth rate of the economy. To remedy this situation, apart from addressing education and health care issues, labor laws pertaining to manufacturing industries will have to be reviewed so as to provide a congenial working environment to the work force to enhance their working efficiency.

Further, the financial system in Pakistan will have to boost up its access to potential entrepreneurs living in far flung and unbanked areas, enabling them to get self-employed by setting up small businesses. Internet and digital disruptions along with mobile banking, introduced by conventional and micro finance banks, have considerably improved the financial inclusion.

State Bank of Pakistan's efforts are needed to bring down the discount rate to give fillip to private sector borrowings, particularly to the manufacturing sector; it is no doubt the need of the time.

Apart from these reformatory steps to enhance commercial activity and job creation, the country's economic managers will have to pay special attention for lowering inflation and budget deficit, which is enhancing both internal and external borrowings hampering the country from attaining sustained growth rate.

India, despite being a fast emerging economy is also caught in the turmoil of fast increase in working age population and lack of jobs, rising inflation and income inequality. This scenario has made it difficult for India to achieve all the 17 SDGs by the year 2030.

Apart from other reformatory steps, China gave preference to heavy investments in energy sector. Initially, China relied on coal as energy source, but gradually harnessed all renewable energy sources and resultantly is now the largest energy producing country from diverse sources.

Pakistan also needs to replicate the energy producing pattern of China. Instead of relying on conventional sources must harness alternate available sources of energy to combat growing crisis in this area.

> State Bank of Pakistan's efforts are needed to bring down the discount rate to give fillip to private sector borrowings, particularly to the manufacturing sector; it is no doubt the need of the time."

India's focus on development of invisible human infrastructure through support for vocational education and export oriented technological parks has tremendously contributed towards development of their service industry and enhancing its share in total exports of the country. No doubt, Pakistan has also made a good headway in this regard, however, it still needs to develop more technological parks, not only to facilitate application of latest technology in all sectors of economy, but also to boost up share of services in total exports of the country.

A growth model encompassing successful experiences of the lead regional economies may provide clearer footprints to follow and achieve faster and sustainable growth, as it provides better opportunity of replicating their growth strategies. Rightly focused by State Bank of Pakistan in its recently unveiled 4th strategic plan (2024-28), where the areas of strategic importance have been highlighted as: i) Strategic Communication, ii) Climate Change, iii) Technological Innovation, iv) Diversity and Inclusion, and V) Productivity and Competitiveness. These strategic themes would be pivotal in reshaping the future of banking and economy, particularly in the backdrop of evolving global and domestic challenges, subject to its co-ownership coming from all other stakeholders unconditionally and taking advantage of the growth experience of South East Asian Economies. ■

alBaraka Bank

Another milestone to promote Pakistan's exports! Al Baraka Group (ABG) Inter-Franchise Collaboration & Trade Portal between Al Baraka Bank (Pakistan) Limited and Al Baraka Bank Egypt

Al Baraka Bank (Pakistan) Limited hosted 2nd Webinar for the Al Baraka Group (ABG) Inter-Franchise Collaboration and Web Trade Portal, this time with Al Baraka Bank Egypt. The continuation of this ambitious initiative is aimed at enhancing exports of Pakistan by connecting Pakistani exporters with Egyptian importers, through cutting-edge technology platforms. This will facilitate diversification of Pakistan's exports to another non-traditional market in the sectors of Clothing & Textile, Sports Goods, Surgical Goods, Pharmaceutical, Rice & Commodity Trading, Travel & Tourism, Chemicals & Paints, Spices, Cables, Packing Materials, Petrochemicals, Pipes, Hand-made Carpets & Leather Goods.

The Web Trade Portal of the Bank dedicated for B2B connectivity between Al Baraka Group (ABG) Franchise Countries, has now added a new section of Egypt. The portal includes necessary information about businesses from both countries that participated in the webinar. After South Africa & Egypt, the Bank plans to continue this initiative with other Franchise Countries of Al Baraka Group including Turkey, Bahrain, Tunisia, Jordan, and Algeria.

111-113-442 | www.albaraka.com.pk

Al Baraka Bank (Pakistan) Limited

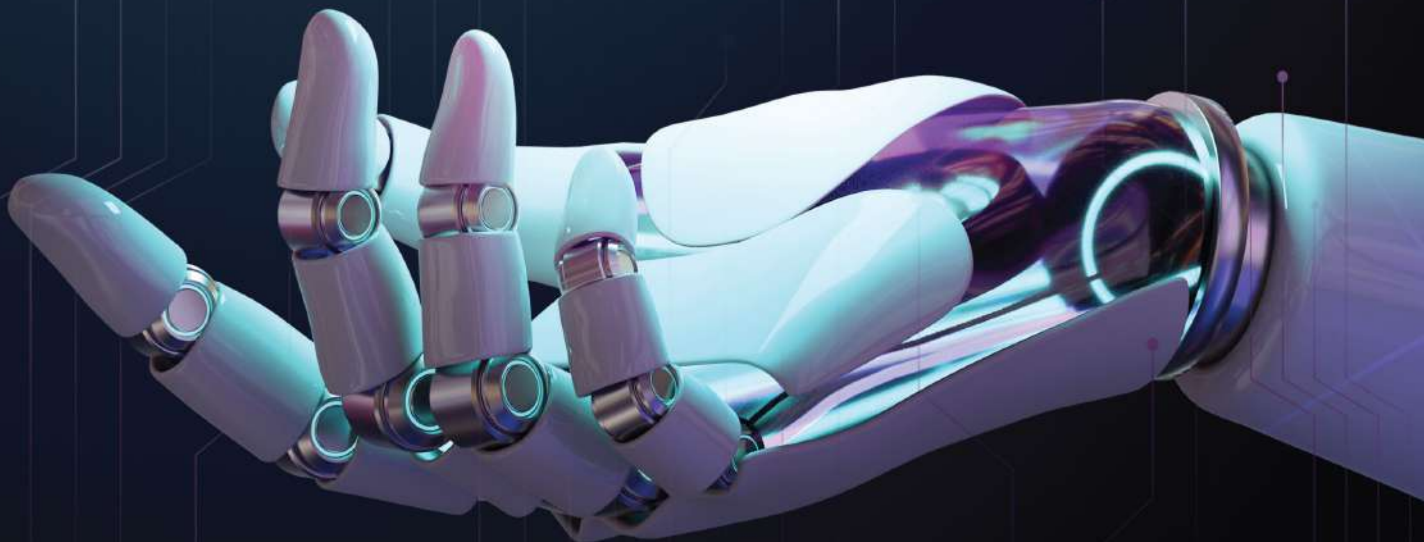
Your Partner Bank

Please scan QR Code to access the Portal

alBaraka Bank

EMERGING DIGITAL BANKING TRENDS FOR 2024 AND BEYOND

By: Rahim Zulfiqar Ali



As we are swiftly venturing into the digital age, the way we manage our finances is undergoing a dramatic transformation. Welcome to the realm of Emerging Digital Banking Trends, where 2024 and beyond promise a wave of innovation that will reshape your relationship with money. Imagine a future where personalized recommendations anticipate your needs, seamless omnichannel experiences erase friction, and AI-powered chatbots become your financial confidantes. This isn't science fiction; these are the trends poised to revolutionize the banking landscape, empowering you with unparalleled control and convenience. From blockchain-powered security to embedded finance seamlessly integrated into your daily life, get ready to experience a financial future built around you, not the other way around. Buckle up, because the future of digital banking is arriving faster than you might think.

A - Focus on Customer Experience:

1. Personalization: Tailoring Banking to Your Unique Financial Story

Banks will leverage AI and big data to offer hyper-personalized financial solutions and recommendations, anticipating user needs and providing relevant products and services. Imagine a bank that understands you better than your closest friend. In 2024, that's the vision for personalization in digital banking. Gone are the days of generic products and recommendations. AI and big data will power a shift towards hyper-personalized experiences, anticipating your needs and offering solutions tailored to your unique financial story.

Picture this, you receive timely alerts suggesting a savings goal, based on your recent spending habits. An investment proposal pops up perfectly aligned with your risk tolerance and long-term plans. This level of personalization goes beyond convenience; it empowers you to make informed decisions about your finances.

But how does it work? Banks will leverage powerful data analytics, collecting information from transactions, spending patterns, and even social media usage (with your consent, of course). This data will be used to create a dynamic financial profile, allowing for real-time recommendations and proactive suggestions.

However, ethical considerations loom large. Transparency and user control over data will be crucial to building trust. Ultimately, personalization holds immense potential to transform banking from a reactive service to a proactive partner in your financial journey.

2. Seamless Omnichannel Experience: Banking Like It Makes Sense

Consistency across mobile apps, online platforms, and physical branches will be crucial, allowing users to switch channels effortlessly. Gone are the days of juggling multiple apps, websites, and brick-and-mortar branches. 2024's digital banking trend focuses on creating a seamless omnichannel experience, where your banking seamlessly flows across all platforms. Imagine starting a loan application on your mobile app, continuing seamlessly on your laptop, and finalizing it with expert advice at a branch – all without losing context or data.

This consistency transcends mere aesthetics. It's about ensuring your financial information and actions are accessible and actionable across all channels. Picture transferring funds between accounts on your phone before leaving home, reviewing transactions online later, then stopping by a branch for personalized investment advice – all with your financial world instantly available at your fingertips.

For banks, achieving this seamlessness requires breaking down data silos and integrating systems. But the rewards are significant – increased customer satisfaction, enhanced trust, and a competitive edge in a crowded market.

Ultimately, the omnichannel experience promises convenience, flexibility, and a banking experience that revolves around your needs, not the other way around.

3. Frictionless Interactions: Conversations, Not Call Centers

Conversational AI and chatbots will become more sophisticated, offering real-time support and automating simple tasks. Remember the frustration of navigating endless menus and waiting on hold just to ask a simple question? 2024 promises a future where those struggles are relics of the past. Frictionless interactions, powered by conversational AI and chatbots, are revolutionizing how you interact with your bank.

Imagine having a 24/7 financial assistant readily available. Chatbots powered by natural language processing will understand your questions and complete simple tasks like bill payments, balance inquiries, or transfers. No more waiting on hold – get the answers you need instantly, anytime, anywhere.

But it's not just about speeding things up. Conversational AI can offer personalized and contextual assistance. Imagine needing help with a specific transaction; the chatbot might pull up relevant details and guide you through the process. This personalized approach not only saves time but also fosters trust and understanding.

Of course, complex issues might still require human expertise. But frictionless interactions pave the way for a more efficient and personalized experience, removing the unnecessary hurdles that often stand between you and your financial goals.

B - Technology Advancements:

1. Embedded Finance: Banking Seamlessly Integrating into Your Life

Financial services will be seamlessly integrated into non-financial apps and platforms, like ride-hailing or e-commerce, offering convenient access to banking features. Forget separate apps for every financial need. 2024's embedded finance trend integrates banking services directly into non-financial platforms you already use. Imagine booking a ride and instantly paying through the ride-hailing app, or buying groceries and seamlessly checking out without leaving the e-commerce platform.

This isn't just convenience; it's about contextually relevant financial solutions. Think micro-loans offered within travel platforms, or investment options embedded within financial news apps. Banks partner with non-financial businesses to provide tailored financial services at the point of need, driving convenience and boosting engagement.

But security and regulation are crucial concerns. Collaboration between banks, fintechs, and regulators is essential to ensure data privacy, transparency, and consumer protection. Embedded finance holds immense potential to revolutionize how we interact with money, making it invisible yet ever-present in our daily lives.

2. Biometric Security: Your Fingerprint is Your Password

Fingerprint, voice, and facial recognition will enhance security and user convenience, replacing traditional passwords. Welcome to the era of biometric security, where your fingerprint, voice, or even facial recognition becomes your unique key to financial transactions. This 2024 trend promises enhanced security and convenience, replacing traditional passwords with more natural and secure authentication methods.

Imagine logging into your banking app with a simple fingerprint scan or making online payments with facial recognition. Not only is it faster and easier, but it's also significantly more secure, reducing the risk of fraudulent access due to stolen passwords.

However, concerns about data privacy and potential misuse cannot be ignored. Banks and technology companies need to prioritize robust data security measures and transparent consent mechanisms to build trust with users. Ultimately, biometric security offers a glimpse into a future where interacting with your finances is secure, effortless, and truly personal.

3. Blockchain Adoption: Building Trust Through Transparency

2024 sees wider adoption of blockchain for transactions, identity verification, and streamlining back-office processes. The distributed ledger technology behind cryptocurrencies is finding its way into mainstream finance. This trend promises increased transparency, efficiency, and security in the financial ecosystem.

Imagine instant cross-border payments without hefty fees, or secure and tamper-proof records of your financial transactions. Blockchain's transparency allows participants to view and verify transactions, fostering trust and reducing fraud. Furthermore, its automation potential can streamline processes, saving time and costs for banks and customers alike.

However, regulatory clarity and infrastructure development are still evolving. While the potential of blockchain is undeniable, overcoming these challenges is crucial for its widespread adoption in the financial world. Overall, blockchain offers a glimpse into a future where financial transactions are faster, more secure, and transparently traceable.

4. Open Banking: Sharing Data for Innovation

APIs will enable secure data sharing between banks and third-party providers, fostering innovation and competition. Imagine securely sharing your financial data with third-party providers to access innovative financial products and services. 2024's open banking trend allows users to grant authorized third-party apps access to specific financial data through secure APIs. This empowers users with more control over their data and opens doors to personalized financial solutions.

Think comparing personalized loan offers from different lenders without manually sharing your information each time, or budgeting apps tailored to your unique spending habits using secure data access. Open banking fosters competition and innovation within the financial sector, ultimately benefiting consumers with a wider range of choices and tailored products.

However, data security and user privacy remain paramount. Robust security measures and clear consent mechanisms are essential for building trust and preventing misuse of data. Open banking paves the way for a future where individuals are empowered to leverage their financial data for personalized solutions and a more dynamic financial landscape.

C - Evolving Financial Landscape:

1. DeFi Mainstreaming: Democratizing Finance with Decentralization

Regulated Decentralized Finance (DeFi) solutions could emerge, allowing wider participation in crypto and blockchain-based financial services. 2024 might see the mainstreaming of Decentralized Finance (DeFi), currently an unregulated Wild West of blockchain-based financial services. Imagine a future where anyone with an internet connection can access loans, investments, and other financial products without relying on traditional institutions. DeFi leverages blockchain technology to create peer-to-peer financial networks, bypassing intermediaries, and potentially offering greater accessibility and transparency.

Think borrowing directly from other users instead of banks, or earning interest on your crypto holdings through decentralized protocols. However, challenges abound. Regulatory uncertainty, complex interfaces, and potential scams threaten to hinder widespread adoption.

Regulated DeFi solutions could bridge the gap. Imagine secure, user-friendly platforms offering access to DeFi products under regulatory oversight. This could democratize finance, empowering individuals to participate in previously exclusive markets. But responsible development, clear regulations, and user education are crucial for navigating the potential pitfalls of this evolving landscape.

2. Process automation: Efficiency through AI and Robotics

AI (Artificial Intelligence) and Robotic Process Automation (RPA) will further automate manual tasks, improving efficiency and reducing costs. Imagine a future where tedious financial tasks, like loan approvals or fraud detection, are handled by AI and robotics processes. 2024's process automation trend leverages AI and RPA to streamline back-office operations, enhancing efficiency and reducing costs for banks and financial institutions.

Think AI algorithms analyzing loan applications in seconds, or chatbots automatically verifying customer identities. This not only frees up human resources for more complex tasks but also improves accuracy and speed. For customers, it translates to faster loan approvals, quicker resolutions to queries, and a more frictionless banking experience.

However, ethical considerations and potential job displacement raise concerns. Responsible implementation and workforce reskilling initiatives are crucial to ensure a smooth transition and mitigate negative impacts. Ultimately, process automation offers a glimpse into a future where banks operate more efficiently, freeing up resources to focus on personalized customer service and innovative solutions.

3. Cybersecurity Focus: Protecting the Digital Fortress

With increasing attacks, banks will prioritize robust cybersecurity measures to protect user data and privacy. With rising cyberattacks, 2024 emphasizes an unwavering focus on cybersecurity in the digital banking landscape. Imagine banks employing cutting-edge technologies and strategies to safeguard user data and financial systems from ever-evolving threats. Think multi-factor authentication, advanced encryption techniques, and continuous threat monitoring systems forming a robust digital fortress.

However, the battle against cybercriminals is ongoing. Hackers constantly adapt, demanding constant vigilance and proactive measures. Banks need to invest in advanced security solutions, stay informed about emerging threats, and prioritize user education on cybersecurity best practices.

Ultimately, a robust cybersecurity focus is not just an option but a necessity. Building trust with customers requires demonstrating an unwavering commitment to protecting their data and financial assets. By leveraging technology, fostering awareness, and staying a step ahead of threats, banks can create a secure digital banking environment for everyone.

REWINDING THE REEL

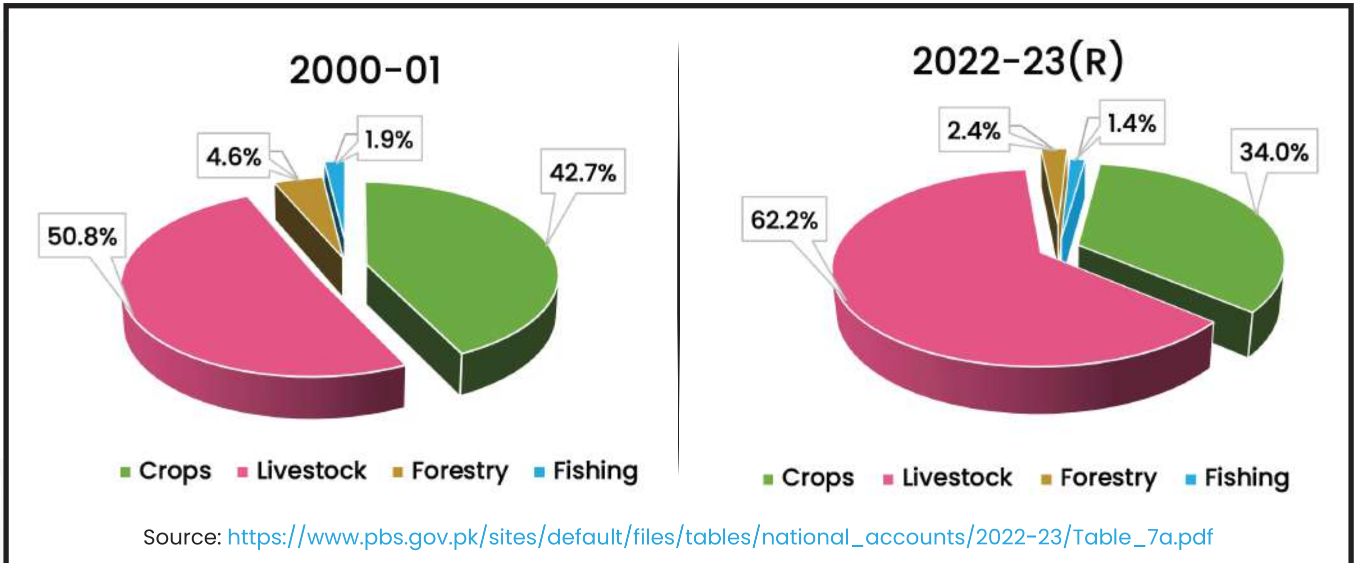
*First appeared in IBP's quarterly Journal October-December 2020, this feature on **'Rewinding the Reel'** allows the readers to see the changes which have been taken place in the composition, magnitude, and significance of key economic variables over time. How far the analysis could be done, depends upon the availability of consistent time series in terms of its definition, components, and the source of data. In the presentation below, more emphasis has been given to the graphical interpretation of data with minimal commentary as to give readers freedom to draw inferences on their own about the policies adopted in the past, sustainability of the existing policies and looking into the emerging trends.*

THE GROWTH PATTERN AND POTENTIAL OF NON-CROP/ NON-FARM SECTOR

After the crops sub-sector, livestock is the second largest segment of agriculture sector in Pakistan as far as its contribution to GDP is concerned. Also known as non-crop/ non-farm sector, it comprises of dairy farms, cattle farms, birds' farms (poultry and ostrich), and fish farms as its major segments. Interestingly, all the above livestock activities are suffixed by the word of 'farm', but technically all these fall under the category of non-farm sub sector of the agriculture sector as a whole.

In fact, the word 'farmland' is the source for this analogy. Since the crops are harvested on farmlands, the cropping sub sector falls under the 'farm' category. Holding-wise, the farmlands are divided into i) subsistence farm holdings, ii) economic farm holdings and iii) above economic farm holdings. While, in livestock, holdings are defined as small farms, medium farms and large farms. The definition part of holding wise classification of land and sizes of farms could be browsed at page 8 onwards at https://www.sbp.org.pk/acd/2022/C1-Annex.pdf. This classification of farmlands and farms serve as the reference point for policy making for the betterment of crop and livestock subsectors. The other subsectors of non-crop/ non-farm agriculture include fishing and forestry, but with almost insignificant contribution to it.

SHARES IN AGRICULTURE SECTOR (at Connstant Market Prices 2015-16)

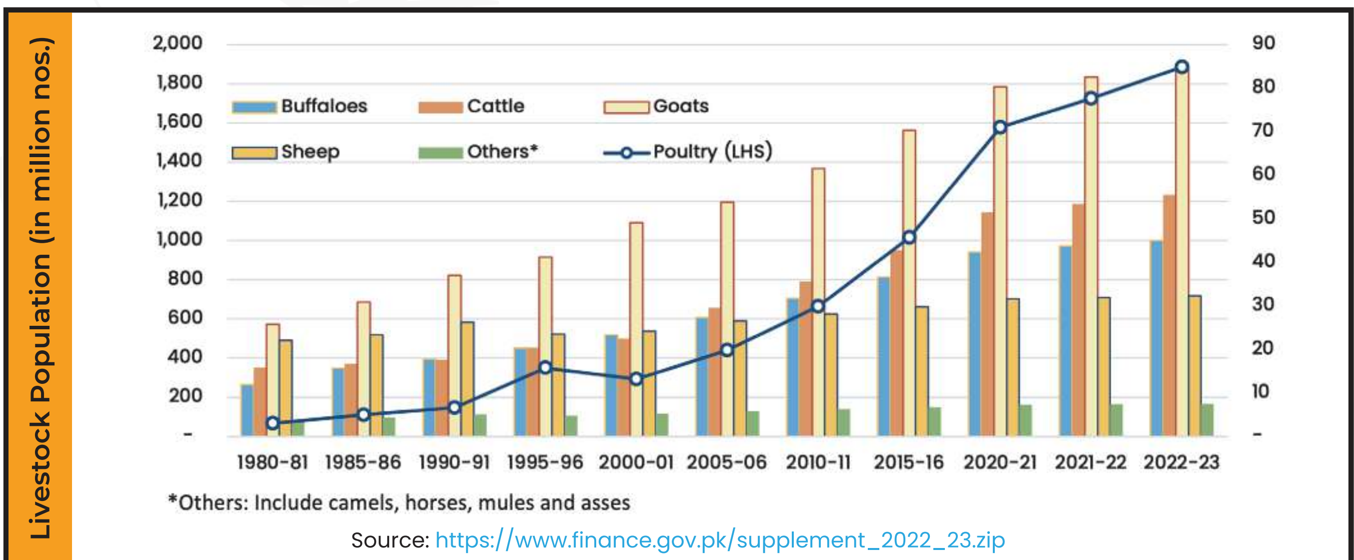


Source: https://www.pbs.gov.pk/sites/default/files/tables/national_accounts/2022-23/Table_7a.pdf

A significant growth has been witnessed in the livestock sub-sector during last 22 years, where its share in agriculture sector increased from 50.8 percent in 2000-01 to 62.2 percent in 2022-23. Contrary to that the share of all other sub-sectors, i.e., crops, forestry and fishing decline from 42.7 percent, 4.6 percent and 1.9 percent in 2000-01 to 34 percent, 2.4 percent and 1.4 percent in 2022-23, respectively.

LIVESTOCK POPULATION & PRODUCTION

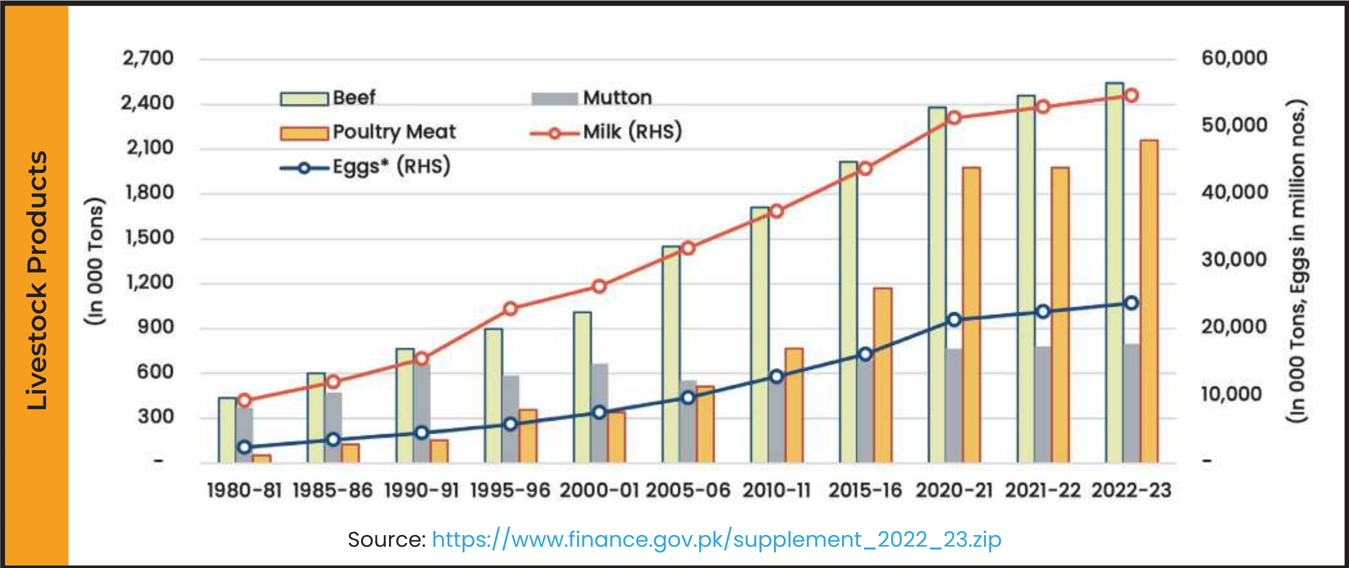
The livestock sub-sector comprises of buffaloes, cattle, goats, sheep, poultry, camels, asses, horses and mules. A growth pattern in the population of livestock may be seen in the chart below. The cattle here represent the domestic four-footed animals held as property or raised for use. Especially: bovine animals (as cows, bulls, or steers) kept on a farm or ranch.



Source: https://www.finance.gov.pk/supplement_2022_23.zip

The poultry population increased rapidly after 2000-01 when the total number of birds increased from 292.4 million to 1,887.0 million in 2022-23, while prior to this the total number of birds increased from 67.4 million in 1981 to 292.4 million in 2000-01. Similarly, rapid growth could also be seen in case of cattle population which increased from 22.4 million in 2000-01 to 55.5 million in 2020-23, i.e., by showing an average growth of 6.7 percent per year.

LIVESTOCK PRODUCTS

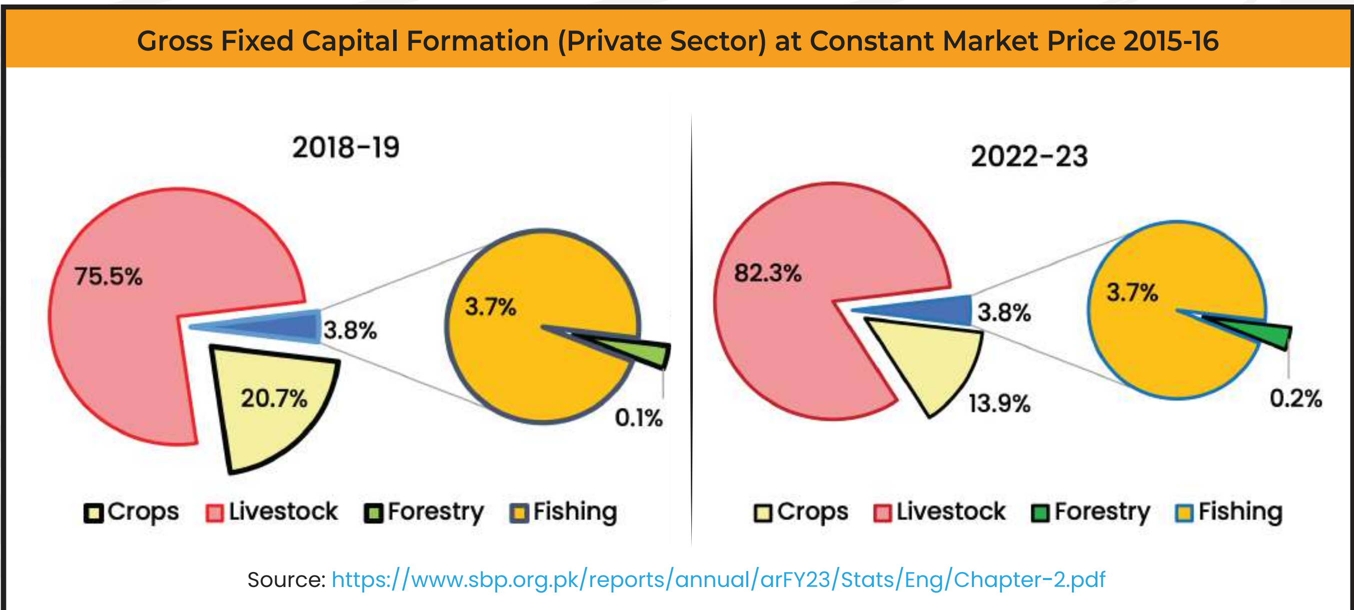


Source: https://www.finance.gov.pk/supplement_2022_23.zip

Similar to the growth pattern of livestock population, poultry products, i.e., the poultry meat and eggs have shown faster growth during past 42 years as compared to the production of other livestock products, including beef, mutton and the milk. During Past 22 years, the production of poultry meat and eggs rose pretty high by annual average growth rate of 24.4 percent and 9.9 percent, respectively. It seems compensating the protein deficit to some extent which might have been mainly because of lower consumption of beef and mutton in diet pattern of people of Pakistan.

GROSS FIXED CAPITAL FORMATION IN AGRICULTURE SECTOR

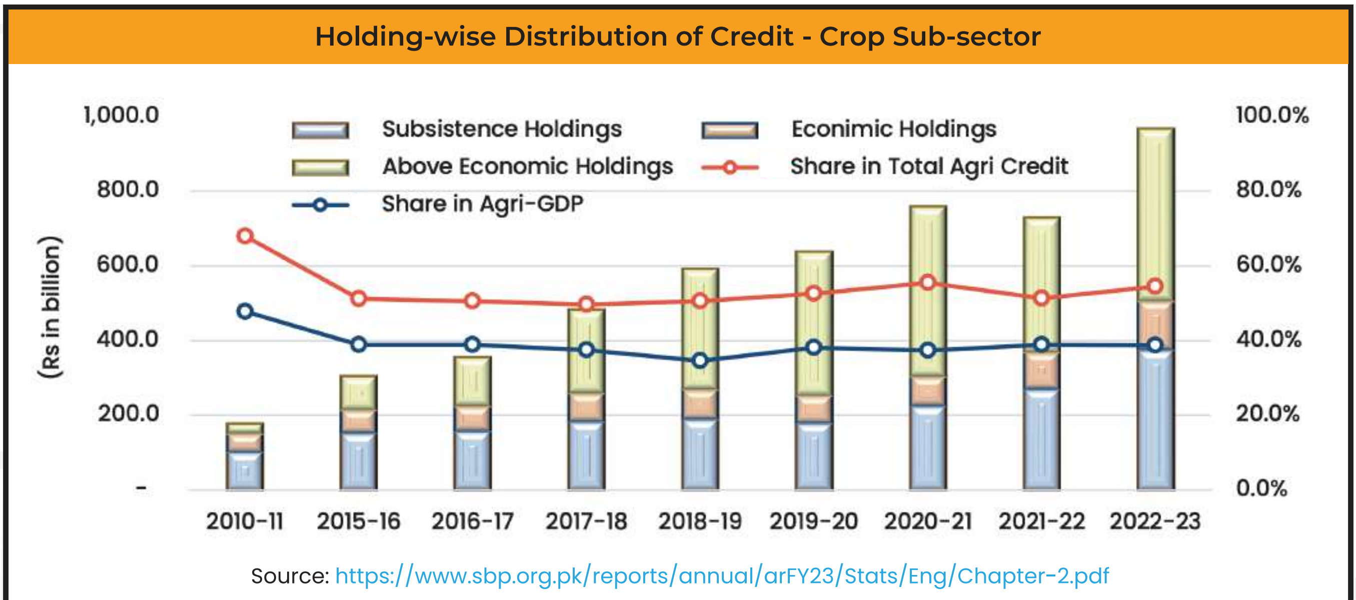
Gross Fixed Capital Formation (Private Sector) at Constant Market Price 2015-16



Source: https://www.sbp.org.pk/reports/annual/arFY23/Stats/Eng/Chapter-2.pdf

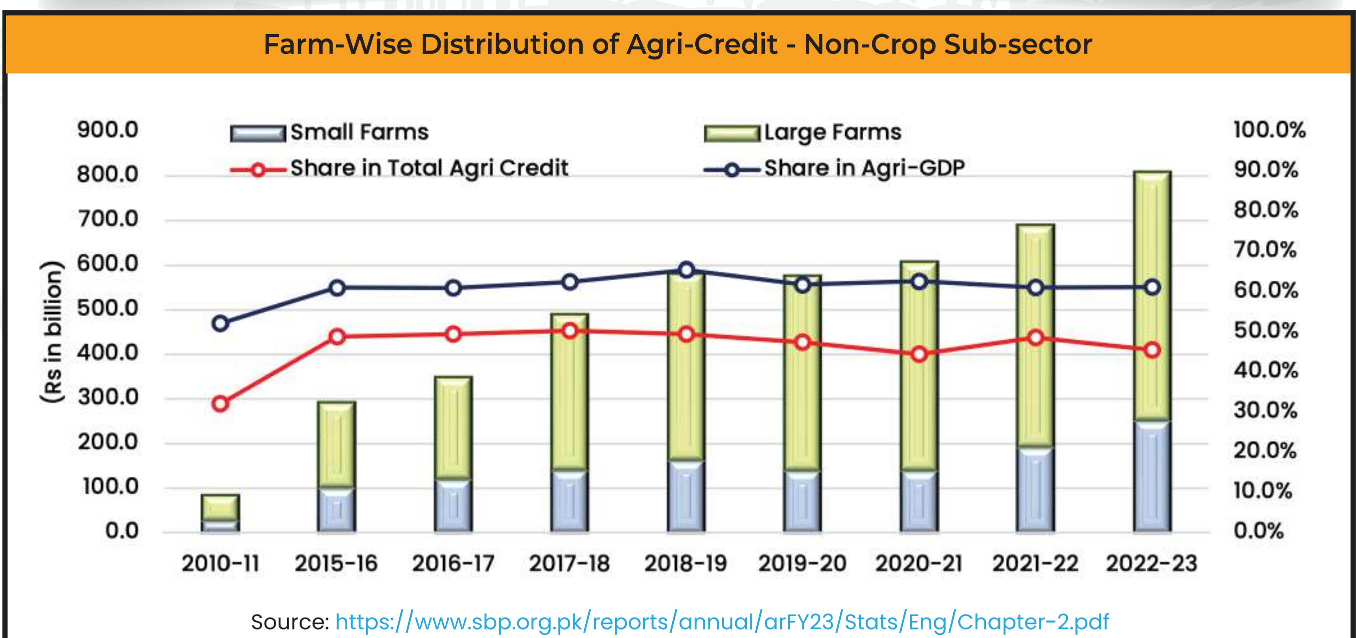
Known as one of the important factors for achieving sustainable growth, capital formation in agriculture sector during past five years have been seen more concentrated towards livestock sub-sector owing to its size and contribution to the value addition. Moreover, the rise in share in overall capital formation in livestock sub-sector from 75.5 percent in 2018-19 to 82.3 percent in 2022-23 might be attributable to raising trend of modernization of farming techniques.

HOLDING AND FARM-WISE DISTRIBUTION OF AGRICULTURAL CREDIT



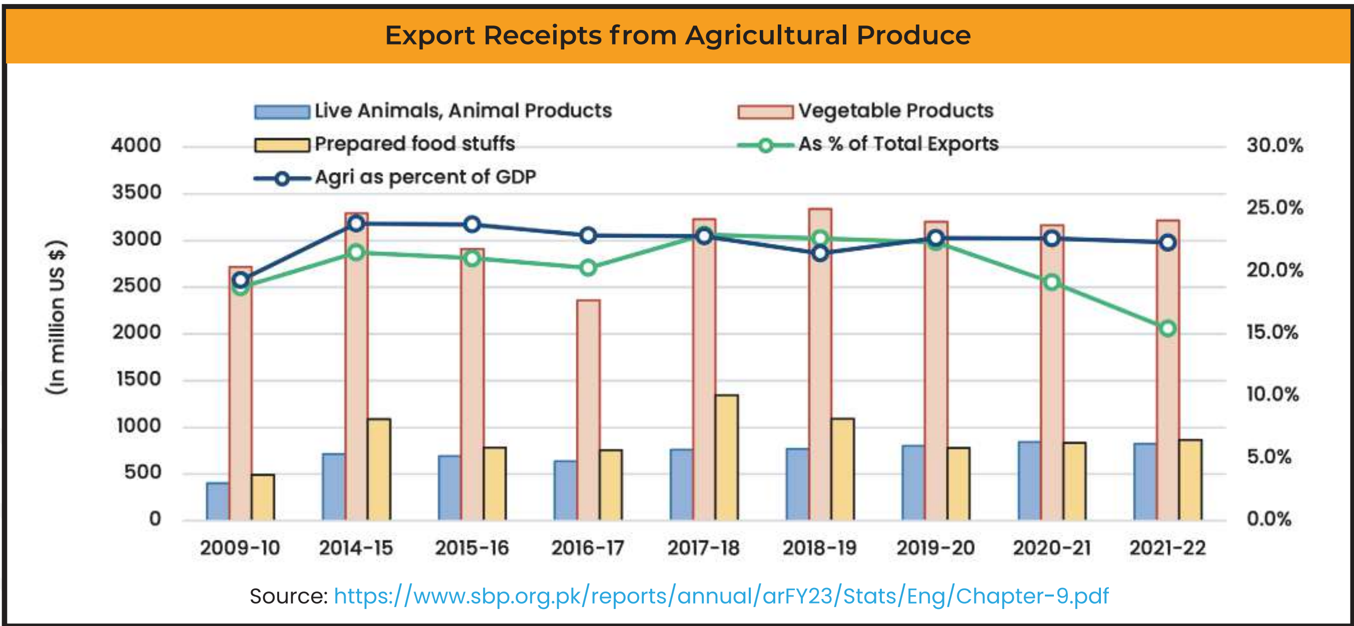
Source: https://www.sbp.org.pk/reports/annual/arFY23/Stats/Eng/Chapter-2.pdf

Holding-wise distribution of agricultural credit reflects that up to 2016-17 higher amount of credit was being availed by the borrowers of holding of subsistence level piece of land, which subsequently reserved and from 2017-18 higher amount of credit was seen being availed by farmers having above economic holding of agriculture land. It is further surfaced that in crop sub-sector, its share in total agriculture credit has always been higher than the share of crops in the total value addition by the agriculture sector in the GDP.



Source: https://www.sbp.org.pk/reports/annual/arFY23/Stats/Eng/Chapter-2.pdf

The credit distribution data for the past twelve years showed that in non-farm/ non-crop sub-sector of agriculture, more credit was being availed by the owners of large farms as they might need more funds for running the big farms. Contrary to the trend seen above in case of crop sub-sector, the value addition to agriculture sector by non-crop sub-sector is higher than the share of this sub-sector in the overall credit disbursement. Therefore, it could safely be concluded that farmers in non-crop sub-sector are contributing more to the value addition in agriculture sector with less amount of credit availed than the crop sub-sector.



Source: https://www.sbp.org.pk/reports/annual/arFY23/Stats/Eng/Chapter-9.pdf

The analysis of past twelve years' data shows that among the above three categories of agricultural related exports, the receipts realized by exporting 'vegetable products' has always surpassed the receipts realized from the exports of 'live animals, animal products' and the 'prepared food stuff', with big margin. Moreover, during past ten years there had been good consistency between ratios of 'export receipts from agriculture produce to total export receipts' and agriculture as percent of GDP, but that could not be witnessed during 2020-21 and 2021-22, when abrupt decline was registered in the exports receipts from the exports of agricultural products.

DEPOSIT PROTECTION CORPORATION – FAQs

Deposit Protection Corporation (DPC) is a wholly-owned subsidiary of the State Bank of Pakistan and established in wake of the DPC Act 2016. The corporation commenced its business with effect from June 01-2018.

Deposit Protection Corporation plays a key role in promoting financial stability by sustaining confidence in the banking system. The objective of DPC is to compensate the small and financially unsophisticated depositors to the extent of protected deposits in the unlikely event of a bank failure.

Deposit Protection Corporation is governed by an independent and professional board of directors under the Chairmanship of Deputy Governor of State Bank of Pakistan, while its affairs are administered by the Managing Director. The Federal Government nominates the Board of Directors in consultation with the State Bank of Pakistan.

Q1. What is Deposit Protection?

ANS: Deposit Protection is a system established to protect the deposits of eligible depositors up to a specified limit in the event of a bank being declared as a failed bank by State Bank of Pakistan (SBP).

Q2. What is Deposit Protection Corporation (DPC) and what is its role?

ANS: Deposit Protection Corporation (DPC) is a subsidiary of State Bank of Pakistan (SBP) established under the Deposit Protection Corporation Act, 2016. The role of the Corporation is to provide a robust deposit protection mechanism to ensure payment of protected amount to the eligible depositors of a DPC member bank, in the event of it being declared as a failed bank by State Bank of Pakistan (SBP).

Q3. What is the protected amount determined by DPC for the protection of eligible depositors?

ANS: Presently, a protected amount of up to PKR 500,000/- per depositor per bank has been determined by DPC for the protection of eligible depositors.

Q4. What is the benefit of Deposit Protection?

ANS: Deposit Protection will provide prompt access to the guaranteed amount i.e. up to PKR 500,000/- to the eligible depositors of a bank declared as failed by State Bank of Pakistan.

Q5. How do I know if my bank is a member bank of DPC or Not?

ANS: Presently all scheduled banks operating in Pakistan are members of DPC. Following is the list of banks that are members of DPC. This list is also available at DPC's website: *https://www.dpc.org.pk/-Circulars/2020/CL1-Annex-A.pdf*

Q6. How do I know if my deposit is eligible for deposit protection or not?

ANS: Your deposit is eligible for protection, if it does not belong to any of the following categories:

- Depositors/ deposits mentioned in the list below;
  - i. Government or Government Institutions.
  - ii. Member institutions of DPC.
  - iii. Companies as defined under Companies Ordinance, 1984/ Companies Act 2017
  - iv. Corporations, Modarbas, Mutual Funds
  - v. Branch(es)/ Permanent establishment(s) of foreign entities
  - vi. Diplomatic Missions and international organizations/ entities like United Nations, World Bank, IFC, ADB etc.
  - vii. Autonomous Bodies
  - viii. Deposits on which preferential interest or return has been granted
  - ix. Members of Board of Directors and senior management of a DPC member bank
  - x. Partners of auditing firm responsible to certify DPC member bank financial statements
  - xi. Persons acquired rights to a deposit after State Bank of Pakistan's notification of Bank failure under DPC Act 2016
  - xii. Spouses, dependent lineal ascendants and descendants and dependent brothers and sisters of the persons specified at sr. no ix, x & xi above.
  - xiii. Deposits arising out of or related to transactions or actions constituting 'money laundering within the meaning of the Anti-Money Laundering Act, 2010, if the offender has been convicted of such offence
- Amounts reported under unclaimed deposits by a member bank in compliance of section 31 of Banking Companies Ordinance 1962.
- Deposits maintained at branches and subsidiaries of Pakistani banks operating outside Pakistan and branches located in Export Processing Zones (EPZ).

Q7. I am an eligible depositor, how do I know if my account is also eligible for deposit protection?

ANS: Following type of accounts of eligible depositors are protected by DPC:

1. All current and saving accounts including Roshan Digital Accounts (RDA).
2. All type of branchless banking accounts
3. Fixed term deposits
4. Call Deposit Receipts (CDR)/ Security Deposit Receipts (SDR)
5. Deposit balance kept as cash margins/ collateral or under lien, that are payable to depositors after satisfaction of all dues that are payable by them to the bank.
6. Foreign currency deposits. However, equivalent PKR on the exchange rate declared by SBP on notification date shall be reimbursed.
7. Profit on any of the above deposits accrued till cut-off date.
8. Any other type of deposits communicated by DPC from time to time.

Q8. Does DPC provide protection to my deposits held at an overseas branch of a Pakistani bank?

ANS: DPC does not provide protection to depositors of overseas branches of Pakistani banks and branches located in Export Processing Zones (EPZ) across Pakistan.

Q9. I am a foreign national temporarily living in Pakistan. Is my account maintained in a domestic branch of Pakistani bank eligible for deposit protection or not?

ANS: Yes, nationality/ residential status of a depositor does not affect the eligibility of a depositor for deposit protection. However, the bank should be a member institution of DPC. The list of member banks is also available on the DPC website at *http://www.dpc.org.pk/Circulars/2020/CL1-Annex-A.pdf*

Q10. Do I need to apply for deposit protection?

ANS: No, all eligible depositors of member banks of DPC shall automatically stand qualified for deposit protection.

Q11. I have a joint account with my wife in a bank. Does each of us enjoy separate deposit protection by DPC in case of bank failure?

ANS: Yes, each eligible depositor of a joint account enjoys separate protection by DPC. However, any pre-defined share or proportionate share of each depositor in a joint account shall add up to his/ her other deposit balances in the same bank for the purpose of calculating the protected amount for reimbursement to that depositor.

Q12. Can I claim an additional protection from DPC over and above the maximum protected amount of PKR 500,000?

ANS: No, the maximum protected deposit currently prescribed by DPC is PKR 500,000/-.

Q13. What happens to unprotected portion of my deposits?

ANS: Depositor may claim for the unprotected portion of their deposits from the official liquidator.

Q14. Does DPC provide separate coverage for conventional & Islamic deposits of a single depositor?

ANS: No, DPC provides a total coverage of up to PKR 500,000/- to each eligible depositor against all of his/her conventional & Islamic deposits, held in the same bank.

Q15. Whether DPC provides separate protection against multiple accounts of an eligible depositor maintained with different banks?

ANS: Yes, a single depositor can receive a protection of up to PKR 500,000/- against all his/ her deposits maintained with each member bank. However, maximum protection is capped at PKR 500,000/- for all accounts in one bank based on 'per depositor per bank principle'.

Q16. In which currency the protected amount shall be reimbursed to eligible depositors?

ANS: The protected amount shall be reimbursed to eligible depositors in Pak Rupees. Foreign currency deposits shall also be reimbursed in equivalent Pak Rupees on the conversion rates declared by SBP for this purpose.

Q17. Can a bank recover the cost of deposit protection from its depositors?

ANS: No, banks are not allowed to recover any cost associated with deposit protection from their depositors.

Q18. If my bank fails, would DPC pay any interest on my protected deposits at the time of reimbursement?

ANS: No, DPC will not pay any further interest or profit on the total claim of the depositor on a failed member bank.

Q19. I have advised my bank to issue a pay order/ bankers cheque from my account. In addition, I have received a pay order from my insurance company that is forwarded to the bank for credit in my account. What happens to items in transit that are not cleared/ settled on the date of bank failure?

ANS: The issues related to instruments in transit that are not settled/ cleared on the date of bank failure shall be addressed during liquidation process. DPC would make payment to eligible depositors based on the outstanding balance(s) available in their deposit account(s) on the date of bank failure as declared by State Bank of Pakistan.

Q20. I have two accounts in the same bank, one as an individual and other as a Sole Proprietor. Does DPC provide separate protection to both accounts at the time of bank failure?

ANS: DPC does not provide separate protection to persons having accounts as an individual and a Sole Proprietor in the same bank. The calculation of protected amount for such depositors is depicted below:

Depositor	Category	No. of Accounts	Deposits (In PKR)	Protected Amount (In PKR)
Mr. XYZ Khan	Individual	1	200,000	---
Mr. XYZ Khan	Sole Proprietor	1	340,000	---
Total	------	**2**	**540,000**	**500,000**

Q21. How DPC would assess the protected amount for different categories of eligible depositors?

ANS: The protected amount would be assessed against all deposits of a single depositor held with a failed bank on the date of notification by the State Bank of Pakistan.

The following table clarifies the process of evaluating guaranteed amount for different categories of depositors:

Depositor	Category	No. of Accounts* in Same Bank	Total Deposits (In PKR)	Protected Amount (In PKR)
Mr. XYZ Khan	Individual and Sole Proprietor	3	600,000	500,000
Ms. ABC Bibi	Individual	1	300,000	300,000
Mr. RAZ	Sole Proprietor	4	1,000,000	500,000
ABC Consultancy Ltd	Partnership Firm	2	700,000	500,000
WBC Builders	Partnership Firm	3	1,500,000	500,000
MNP Fitness Club	Sole Proprietor	6	1,000,000	500,000
SINCOS Foundation	Trust	1	200,000	200,000
TANG-ONN	Other (Adventure Club)	1	100,000	100,000

**Represents either conventional or Islamic or both type of accounts held by a single depositor*

Q22. How would I know if my bank (DPC member institution) has failed?

ANS: After the issuance of notification by State Bank of Pakistan (SBP), the Corporation (DPC) shall inform general public through leading newspapers having wide circulation in the country. The information shall include the date after which depositors will receive protected amount from the Corporation and the procedure for payments.

Q23. How would DPC validate my total deposits held with a failed member institution (bank)?

ANS: Deposit balances of all eligible depositors shall be validated on the basis of a comprehensive depositor's database reported by the failed member institution (bank).

Q24. If my bank (DPC member institution) fails, when will I receive the coverage amount guaranteed against my deposits from DPC?

ANS: DPC shall begin the process of reimbursement to eligible depositors as early as possible after the issuance of failure notification of a member institution by SBP. DPC shall ensure payments to most of the protected depositors are made or tendered within seven working days and that all payments are made or tendered within thirty days at the latest, provided that there is no legal dispute on the deposit or accounts in question.

Q25. I have deposits in two member institutions (banks) of DPC. What happens to my deposits if they merged?

ANS: Your deposits up to the guarantee amount shall continue to be protected separately for a period of one year or full withdrawal or until maturity of the deposits, whichever occurs earlier, from the effective date of merger.

Q26. Can legal heirs of a deceased depositor of a failed bank claim the guaranteed amount from DPC?

ANS: Yes. However, the legal heirs will be required to prove their right to claim the guaranteed amount by acquiring all necessary documents as per the applicable laws.

Q27. Where should I contact for further information on deposit protection in Pakistan?

ANS: You may visit our website *http://www.dpc.org.pk* to access further details on deposit protection in Pakistan. You may also write to us electronically at *info@dpc.org.pk* or through surface mail at the following address:

DEPOSIT PROTECTION CORPORATION
(A Subsidiary of State Bank of Pakistan)
2nd Floor, SBP Bolton Market Building, M.A. Jinnah Road, Karachi.

Disclaimer. *These FAQs are being issued for information and general understanding only and shall not constitute any legal obligation on the part of Deposit Protection Corporation (DPC). These FAQs are subject to updates from time to time by the DPC. The Deposit Protection Corporation Act, 2016, rules and regulations issued thereunder shall be applicable on all the member institutions.*

Source: *https://www.sbp.org.pk/dpcwebsite/FAQ-d.asp*

Add-ons to
SBP POLICY REGIME
January-March 2024

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 IBP website: https://ibp.org.pk/quarterly-journal/

01

Public Holiday
BPRD Circular Letter No. 01/ January 31, 2024
https://www.sbp.org.pk/bprd/2024/CL1.htm

02

Public Holiday
BPRD Circular Letter No. 02/ February 06, 2024
https://www.sbp.org.pk/bprd/2024/CL2.htm

03

Deduction of Zakat at Source in Respect of Saving Banks / Profit & Loss Sharing and Similar Bank Accounts (Asset Code No.101) and Deposit Thereof Immediately After Deduction Date | BPRD Circular Letter No. 03/ March 07, 2024 | https://www.sbp.org.pk/bprd/2024/CL3.htm

04

Bank Holiday
BPRD Circular Letter No. 04/ March 08, 2024
https://www.sbp.org.pk/bprd/2024/CL4.htm

05

Office and Business Hours during the Month of Ramadan-ul-Mubarak, 1445 AH | BPRD Circular Letter No. 05/ March 11, 2024
https://www.sbp.org.pk/bprd/2024/CL5.htm

06

Public Holiday
BPRD Circular Letter No. 06 of 2024/ March 22, 2024
https://www.sbp.org.pk/bprd/2024/CL6.htm

07

Temporary Waiver of OTP/Callback Confirmation Requirement on AMA
BPRD Circular Letter No. 07 of 2024/ March 28, 2024
https://www.sbp.org.pk/bprd/2024/CL7.htm

08

Banks' Floating Exchange Rates - Revised Timelines
No. DCS. ITS/001545/24/ February 26, 2024
https://www.sbp.org.pk/stats/2024/C1.htm

09

Electronic FX Trading Platform for Interbank Trading
DMMD Circular No. 01 of 2024/ January 23, 2024
https://www.sbp.org.pk/dmmd/2024/C1.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. 01 of 2024/ February 01, 2024
https://www.sbp.org.pk/dmmd/2024/CL1.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. 02 of 2024/ February 29, 2024
https://www.sbp.org.pk/dmmd/2024/CL2.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. 03 of 2024/ March 30, 2024
https://www.sbp.org.pk/dmmd/2024/CL3.htm

13

Advance Remittances/Payment for Import of Goods
EPD Circular Letter No. 01 of 2024/ January 30, 2024
https://www.sbp.org.pk/epd/2024/FECL1.htm

14

Utilization of Funds held in Exporters' Special Foreign Currency Accounts (ESFCAs) | EPD Circular Letter No. 02 of 2024/ February 23, 2024
https://www.sbp.org.pk/epd/2024/FECL2.htm

15

Instructions Related to Import of Cash US Dollars
EPD Circular Letter No. 03 of 2024/ March 29, 2024
https://www.sbp.org.pk/epd/2024/FECL3.htm

16

Adoption of 'Accounting and Auditing Organization for Islamic Financial Institutions' (AAOIFI) Shariah Standards
IFPD Circular No. 01 of 2024/ January 22, 2024
https://www.sbp.org.pk/ifpd/2024/C1.htm

Direct

The Rise of Middleman Economy and the Power of Going to the Source

By: Kathryn Judge

Synopsis

Axiom Award Gold Medalist for Business Theory

Finance expert, law professor, and fellow over-whelmed consumer Kathryn Judge investigates the surprising ways that middlemen have taken control of the economy at the expense of the rest of us, and provides practical guidance about how to regain control, find more meaning, and contribute to a more sustainable economy.

Over the past thirty years, middlemen have built intricate financial and retail empires capable of moving goods across the country and around the world—transforming the economy and our lives. Because of middlemen, we enjoy an unprecedented degree of choice and convenience. But the rise of the middleman economy comes at a steep price.

In *Direct*, Columbia law professor Kathryn Judge shows how overgrown middlemen became the backbone of modern capitalism and the cause of many of its ailments. Middlemen today shape what people do, how they invest, and what they consume. They use their troves of data to push people to buy more, and more expensive, products. They use their massive profits and expertise to lobby lawmakers, tilting the playing field in their favor. Drawing on a decade of research, Judge shows how to fight back: Go to the source.

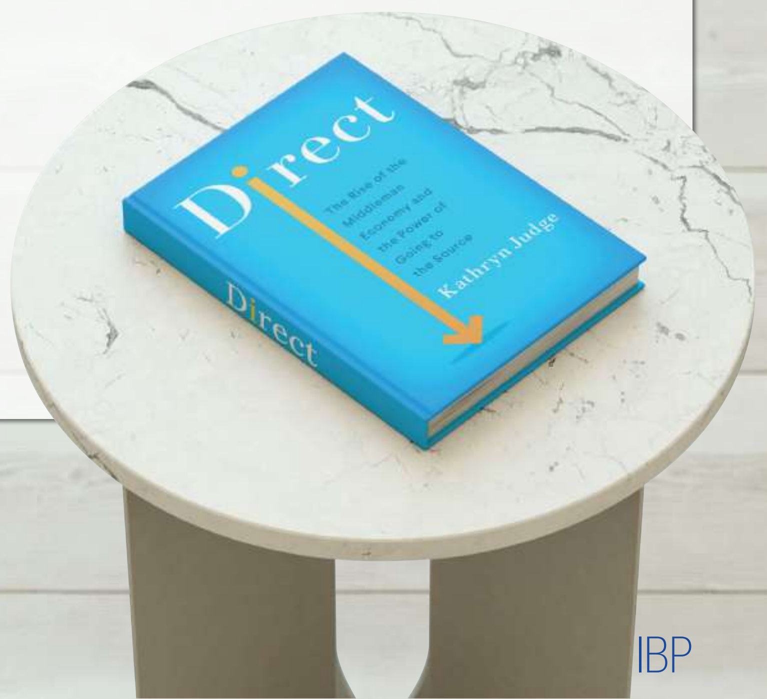
The process of direct exchange—and the resulting ecosystem of makers and consumers, investors and entrepreneurs—fosters connection and community and helps promote a more just, resilient, and accountable economic system. Direct exchange reminds us that our actions always and inevitably impact others, as it rekindles an appreciation of our inherent interconnectedness. As Judge reveals in this much-needed book, direct exchange is both the cornerstone of the solution and a tool for revealing just how much is at stake in decisions about "through whom" to buy, invest and give.

Review

"For more than two hundred years, modernity was thought to involve the transition from gifts and personal ties to a world dominated by impersonal markets and efficient transactions. In this brilliant contribution, Judge turns the established notion of 'progress' on its head. Middlemen have become too big, too pervasive, and too powerful. We need to understand when and how more direct connections work—and move our lives, our businesses, and our public policy in that direction. Essential reading for anyone who cares about the future of good jobs and the world we leave for our children."
— Simon Johnson, coauthor of *Jump-Starting America* and former chief economist at the International Monetary Fund

About the Author

Kathryn Judge is the Harvey J. Goldschmid Professor of Law at Columbia Law School. She has done extensive research on financial markets and regulation, regularly publishing her work in top journals and presenting to audiences in the United States and abroad. She served as a clerk for Judge Richard Posner and Supreme Court Justice Stephen Breyer. She is a graduate of Stanford Law School and Wesleyan University.



Impacts of
Science and Technology on Currency Internationalization

By: Peter Guanping Zhang

Synopsis

For decades, science and technology (sci-tech) have influenced world trade, world economy, and international finance. However, their specific impacts are seldom known and related empirical studies are rare. Thus, we must quantify and empirically explore how sci-tech influences such areas as mentioned above. The purpose of this book is to explore how sci-tech influences world trade, foreign exchange, and currency internationalization in various ways through first quantifying science and technology. This book empirically explores how major world currencies might change their relative international positions with continuous innovation and diffusion of sci-tech.

Currency internationalization is measured by the percentage share of the average daily turnover of a particular currency in the global foreign exchange market over the corresponding overall daily turnover of the global foreign exchange market. Sci-tech as a commodity is borderless, yet its inventors and related businesses are bound by the intellectual property laws of their own countries. Patents, especially international patents, are useful representations of sci-tech. They cannot be compared directly because of different criteria of patent regulators worldwide, and thus the quality of patents varies across patent regulators. Based on patent data from annual IP 5 Statistics Reports and charges for the use of IP of major currency issuers released by the WTO, this book quantifies sci-tech internationalization using weighted patent families first, and proceeds to study how sci-tech internationalization affects currency internationalization.

This is a book for every person with a bank account.

Review

"This book is not only a masterpiece for professionals in businesses and financial areas, but also very useful for professionals in science and technology fields, as the author has built a beautiful bridge that connects the two fields based on his solid knowledge of these fields."
—Dr Zhong Lin Wang, *Regents'* Professor and Hightower Chair at Georgia Institute of Technology, Winner of the 2019 Albert Einstein World Award of Science and 2018 ENI Award in Energy Frontiers

About the Author

Dr Peter Guangping Zhang obtained his BS and MS in Computer Science in the Chinese mainland, before being sent to study in the United States in 1987. He has served as manager, senior associate or vice-president in various financial institutions, including MMS International (Standard & Poor's Group), the Union Bank of Switzerland (New York Branch) and the Chemical Bank (head office) in New York City. After working for the Chase Manhattan Bank (Tokyo Branch) as a vice-president for about three years, he broadened his expertise to financial law at Harvard Law School. He joined Shanghai Futures Exchange in 2003 as Chief Financial Engineering Advisor and Senior Director of Research & Development Center of the Exchange. He joined the newly established Supervisory Cooperation Department for Banking Innovation of China Banking Regulatory Commission (CBRC) in November 2005 as Deputy Director General and re-allocated to CBRC Shanghai Bureau as Deputy Director General in October 2007.

THE WORLD AHEAD 2024

The Economist

Synopsis

Every November, *The Economist* publishes 'The World Ahead', their annual predictive guide to the coming year. In this year's edition, their correspondents invited experts to consider the state of democracy, as countries that are home to half of the global population hold national elections; analyses growing conflict and disorder in an increasingly multipolar world; and overviews the challenges and opportunities posed by climate change and rapid technological progress.

About the Publisher

The Economist is a British weekly newspaper printed in magazine format and published digitally. It focuses on current affairs, international business, politics, technology, and culture.

Make transactions with Paracha Exchange and win exciting gifts!
More transactions, more chances to win!

PARACHA
INTERNATIONAL EXCHANGE (PVT) LTD

First Shariah Compliant

www.parachaexchange com
/parachaexchange
/parachaintexchange
@Paracha_Ex

UAN: 111-900-000

Save for Pakistan Invest in Pakistan

"We ... in general and young men in particular do not know the value of money. A paisa saved today is two paisa tomorrow, four paisa after that and so on and so forth. Because of our addiction to living beyond means and borrowing money we lost our sovereignty over this Sub-continent."

Mohammad Ali Jinnah
Founder of Pakistan
(Ziarat, 1948)

Bank AL Habib Limited

رشتہ بھروسے کا