Paradigm Shift in Indian Banking System-Banking 5.0

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Abstract: *The global economy is going through the phase of recession and the pandemic after effects are open to all. They have their unprecedented effects on all organizations, banking sector is not isolated. In view of all the vital developments and crisis, it's essential to innovate strategies in banking sector. Finance being the lifeline for any economy and economic activities, how far the finance is managed and controlled. This article is a highlight of this issue. Banks and financial institutions need to offer customer products and services relevantly and promptly. There is need for new vision of banking .promoting fin techs and digital economy is the emerging area to be focused on. In view of digital transformation, such changes are termed as Banking 5.0. In this article, author focuses on economics of banking 5.0. AI can revolutionize banking by increasing productivity and customer value.*

Keywords: Digital transformation**,** Banking 5.0, recession

Objective of study- This article analyses the development and application of Banking 5.0 to its digital transformation. The article explains that banking is not necessarily done in the banks.

Need of the study-It is necessary for banks to reinvent model to sustain very low interest and strong economic challenges. They must be adaptable to digital challenges. Sustainability is the base for the paradigm shift in the system.

Methodology of study – in terms of research method, study is based in the category of qualitative research. The secondary method of data collection is adopted from various newspapers, bulletin of RBI, journals.

I. INTRODUCTION

Bill gates "Banking is necessary, Banks are not"
There is a need felt in the banking sector during ongoing pandemic to be preventive and proactive with new business models, new products and services. It must innovate and change its approach towards customer and markets. This necessitated adapting to mergers and acquisitions, equity partnerships and collaborations. A rapidly changing market and evolutionary industry required unprecedented ability to do banking. Technical changes are mandatory and using them in its best possible ways is curial. It necessitated banks and financial institution to use robots and AI for radical transformation called Banking 5.0 Reserve Bank of India as regulator is also working in this direction. Finance Ministry announced proposal to set up 75 digital banking units in 75 digital districts via scheduled commercial bank for furthering adoption of digital payment.

II. INDUSTRY 5.0 AND BANKING 5.0

Innovations are through the industrial revolutions. The new technologies used in one sector and created impact on entire society .The evolution of industrial revolution stage wise is as follows

- **I. Industrial Revolution**-steam engine revolutionized the textile industry and subsequently other sectors. Banks existed as clearing house or central banks. **Bank 1.0** was the traditional banking.
- **II. Industrial Revolution**- Introduction of electricity combined with mass production caused dynamic changes in industry and affected social and political institutions. Bank branch networks expanded. **Bank 2.0** was the era of self-service banking

- **III. Industrial Revolution**-Introduction of computer revolutionized the work and it brought changes in banking application, MICR, credit cards, electronic financial market and electronic payment **bank 3.0** was the mobile-based banking.
- **IV. Industrial Revolution**-diffusion of internet characterized this phase of revolution-cloud, IOT and industrial automation. It brought fintech into market, online or mobile banking in virtual global economy. **Bank 4.0** is ubiquitous banking.
- **V. Industrial Revolution**-this phase is marked with cognitive solutions (AI and robotic process automation). It brought **Bank 5.0** embedded banking, responsible banking, hybrid robo-advisors and bots, robo advisor, ETF, crypto currency

III. MODEL OF BANKING 5.0

Functioning of banks in recent years has revolutionized digitations of banking. Banking 5.0 is disruptive innovation. Digital Acquisitions is the modality of growing such banks. Innovations are necessary to face new challenges to improve effectiveness and efficiency to meet the growing need of people and organizations. It's necessary to use AI, robotic process automation in all operations and channels in sustainable manner. It must be able to ensure sustainability through automation and outsourcing services. The transactions are to be cut-down adding more value to customers. Such transition will enable banks confidence of lending and take decision expeditiously.

EUROPEAN ECONOMIC AND SOCIAL COMMITTEE "industry 5.0 is focused combination of person's creativity with speed, productivity and consistency of robots"

In recent past, Indian banking sector has undergone large scale disruption. The sector is witnessing adoption of cloud computing, AI, ML, block chain technology and greater digital documentation. In India, such digital transformation will empower banks to innovate to expand their products and services through collaborative partner. To tap the innovation happening in the ecosystem, the banks have to go through the process of amalgamation with partners and collaborators to create innovative products in alignment with digital roadmap.

AI, Virtual Reality, Bots in Indian Banking Sector

At present times, banks to facilitate best customer services, must leverage latest technology. Earlier banks were slow and reluctant to integrate AI into their operations. In India, market for AI is just beginning to grow. Today, it's necessary to utilize such techno for risk management and fraud detection. Retail banking industry is widely using AI driven automation for services. Digital payment across the country has grown by nearly 29% in a year. AI algorithms can identify staff members who exhibit strange behaviors. AI in hybrid cloud offers agility, scalability and sustainability within the regulatory framework. Cases of raud in public sector banks have reduced by 50% in FY 20222. AI is also useful for money laundering detection. The 5 application of AI in banking are

1. Customer service-chatbot like balance inquiries, mini statement, fund transfers, etc
2. Robo advice-investment recommendations for particular product
3. Predictive analysis-detect patterns and correlations in data for cross-sell opportunities
4. Cyber security –helps in monitoring internal threats and suggests corrective action in case of data theft or abuse.
5. Direct lending-robust credit scoring model

Key areas where AI and automation help banking sector

- Lending –AI empower banks to develop predictive models
- Wealth management-
- Transaction banking-electronic KYC
- Customer support-intelligent digital assistants or chatbots
- Cognitive system automation-manage unstructured data to enable enhanced performance

Top 5 Indian Banks using AI

1. State Bank of India-SBI Intelligent Assistant (SIA) is smart chat assistant and Payjo.
2. HDFC-smart chatbot Eva works with Google Assistant on android device

3. ICICI- bank has applied software robotics in nearly 200 business processes. It is first banks in the country to use AI on large scale.
4. Axis bank-I July 2020 it unveiled conversational interactive voice response IVR) called AXAA, multilingual voice bot
5. Bank of Baroda-it has robot named Baroda Brainy and chatbot anmed Assisted digital Interaction.
6. Andhra bank-ABHI is interactive assistant
7. Kotak Mahindra bank-keya, bilingual chat bot
8. YES bank-YESmPower is loan chatbot and YES robot answers consumer banking related queries
9. Canara bank-Mitra,a humanoid robot
10. IndusInd bank-Alexa Skill, InduAssist
11. City union bank-Lakshmi, robot

IV. CENTRAL BANK DIGITAL CURRENCY (CBDC)

CBDC is digital form of paper currency. They are legal tenders used and backed by central bank. It is similar to fiat currency and is exchangeable with fiat currency. A fiat currency is national currency that is not pegged to price of commodity like gold or silver. Introduction of CBDC is big boost to the digital economy. It could bring paradigm shift to cashless economy in the country and seamless changes in the banking sector. It offers various benefits of liquidity, scalability, acceptance, faster settlement and easy transaction. They can be transacted using wallets backed by block chain. The aim is to mitigate costs and risks in handling physical currency, phase out soiled notes, transportation and logistics they pave way for financial inclusion. It pushes informal economy to formal to ensure better tax compliance. They can be sued for cross-border payments.

Examples from the international platform
- Bahamas was the first country to launch its nationwide CBDC-sand dollar
- Nigeria launched eNaira in 2020
- China was first major economy to start a digital currency eCNY in April 2020
- Korea, Sweden, Jamaica, Ukraine are few other countries to have its digital currency

Risks involves (challenges)
- Privacy concerns-increased risk to privacy of users
- Compromise of credentials
- Impinge on bank's ability to plough back funds
- Small and weaker banks may struggle to retain low-cost deposits.
- Obsolescence of technology may costs for up gradation
- Cyber security risks
- Lack of digital literacy of population

Issues and Challenges of Banking 5.0
- Cloud computing-wider coverage of people
- Telecom technology-wider range of products and services
- Compliance-request of personal data and Basel norms
- Sustainability-
- Customer relation-better response
- Costs of products and services and severe consequences of incorrect actions

V. TRANSITION FROM BANKING 4.0 TO BANKING 5.0

Industry 5.0 is designed to use unique creativity of human experts to work with intelligent and precise machines. Industry 5.0 is assumed to integrate high speed and precision machines with critical human cognitive thinking. Industry 5.0 increases production efficiency creates human-machine adaptability and continuous monitoring activities. Industry 5.0 assigns repetitive and uniform tasks to robots that require critical thinking for humans. We have not yet fully

transitioned from industry 4.0 to industry 5.0 as it requires many fundamental changes in many related organizations. Robots are intertwined with the human brained and can play role of collaborators.

Robots must have artificial intelligence. It necessitates cooperation between the individual and the machine. Banking 5.0 is dominant use of artificial intelligence. The recent pandemic pushed economies to transit to Bank 5.0 to make it more responsive, relevant and agile. The recent crisis accelerated technology investment. Banking 5.0 ushers cultural transition to customers from merely passive to preventive. India's banking ecosystem is relentlessly growing, the adoption of AI will enable digital banking infrastructure.

In the evolutionary changes in the banking system, internet helped first generation bank to become second generation. With growing usage of Smartphone, the third generation banking emerged which moved to next generation banking. Bow due to maturity of new technologies alike virtual reality, artificial intelligence voice recognition systems brought advancement in banking services. It helped banks to move towards digital banking. Globally, we are in fourth industrial revolution. In anticipation of the fifth industrial revolution, there is very little literature available. Industry 5.0 will be automated.

VI. LIMITATION OF THE STUDY

Banks all around the world are still involved in fascination of Banking4.0. This article is written at time when world is not yet ready for Bank 5.0. Indian banks have to move with time and help customers to adopt new technologies with ease.

VII. CONCLUSION AND SUGGESTIONS

Industry 5.0 is clear shift from mass automation to the capability enhancement process. It raises many issues like what skills are needed, what should be the rules between human-machine interaction and what causes conflict between human and artificial intelligence. Banking is not undertaken n banks. Banking should become integral part of business activities and individuals. Banking transactions should become part of normal activities. Banking 5.0 was born out of an industrial revolution dominantly artificial intelligence. In future, AI is going to make virtual banking more inclusive.

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