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The Indian Scenario of the E-Banking and Future Prospectus

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Abstract: ***The evolution of e-banking has fundamentally transformed the way banks traditionally conduct their businesses and the ways consumers perform their banking activities. Today e-banking has experienced phenomenal growth and has become one of the main avenues for banks to deliver their products and services. Electronic banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. The future of banking in India looks not only exciting but also transformative. Despite the somewhat difficult current operating environment, banks remain the largest financial sector intermediary in India. In future, technology will make the engagement with banks more multi-dimensional.***

Keywords: E-Banking, Information, Technology, mobile wallets, Intelligent banking

1. Introduction

Information technology impacting the way banks conduct their business as the traditional banking methods are not enough to meet increasing customer expectations and improve profitability. The future of banking in India looks not only exciting but also transformative. Most importantly, banks have been able to ensure that all these transactions are safe and secure. Banking in India has rapidly innovated to keep up with the times. Customers are increasingly weaving their digital and physical worlds together, with transactions conducted using multiple channels. Passbook entries have been replaced by hassle-free e-statements; ATMs facilitate easy withdrawals and payments. Customers access e-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM), kiosk, or Touch Tone telephone.

2. Technology Developments Adapted In The Indian Banking

Mechanisation - 1980s:
Banking sector in India embraced technology right from 80's, a period which witnessed mechanization of transactions and processes. This period saw the introduction of encoders, standard cheques and mechanisation of) cheque processing post the implementation of MICR. This eliminated manual way of processing negotiable instruments particularly cheques and bank drafts.

Automation - 1990s:
A decade starting from early 90's saw massive effort towards computerisation of Indian Banking systems. All branches were computerised. This resulted in high productivity improvements and banks were able to expand their products and services offered to customers. Connectivity between branches was taken up post computerization. This facilitated cross branch transactions and eventually paved the platform for anywhere banking.

Overture of Electronic Funds Transfer (EFT) was a milestone achievement, which facilitated seamless transfer of funds between customers, branches, banks and other institutions. Core Banking solutions were implemented which introduced seamless transaction processing between different departments within the bank processing various products and services. It also improved the overall efficiency of banking operations. Productivity of bank employees improved substantially. This decade saw the introduction of ATM as well, which changed the entire gamut of customers' experience in banking for cash transaction and other services like ordering cheque book, account statement, etc.

3. Objectives of the Study

1) Technology Developments Adapted In the Indian Banking
2) To study the status of financial innovations in Indian banking sector.
3) To discuss the future trend and opportunities available in E-banking of e-banking in India.

4. Research Methodology

The present study is descriptive in nature. The data used for the study is secondary in nature and has been collected from RBI (Reserve Bank of India) bulletin, annual reports of RBI and, Report on trend and progress of banking in India, various reputed journals, newspapers, white papers and websites of RBI.

Future of Banking

Banks around the globe are working in innovating newer technology to change the entire banking and financial space. Technology will focus on eliminating manual efforts in all transactions and move towards automation. Current methods of login, typing and keying transaction will be replaced with automatic methods like biometrics, speech recognition, gesture recognition. Robotics, kiosk, smart interactive devices, and interfaces will take the place of Banking staff and

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representatives. Few technologies that have been implemented recently or being under development in various parts of the world and how they are going to impact the future of banking.

Mobile Wallets

Mobile wallets are mechanism to make and receive payments through mobile phones. Mobile wallets are growing at a phenomenal pace. The convenience of making payments through mobile phones is replacing cash payments and credit card payments. Mobile wallets are changing the way cash transactions take place around the world.

The demonetisation announced by the Indian Government on 8th November 2016 will force more people to move towards mobile
wallets rather than cash transactions. With more than a billion smart phone holders in India, the use of mobile wallets is bound By Authentication, I refer to the process of a Banking customer establishing his identity with the banking systems like User ID & password in the case of internet banking, PIN in the case of ATM, Mobile PIN in the case of Mobile Banking, TPIN in the case
of telebanking. These methods of authentication will be replaced by Biometrics like fingerprints and Iris scan, behavioral biometrics like the way customers type in the key board, click the mouse, facial expression (smile on the face, blink of eyes), gestures, and speech recognition.

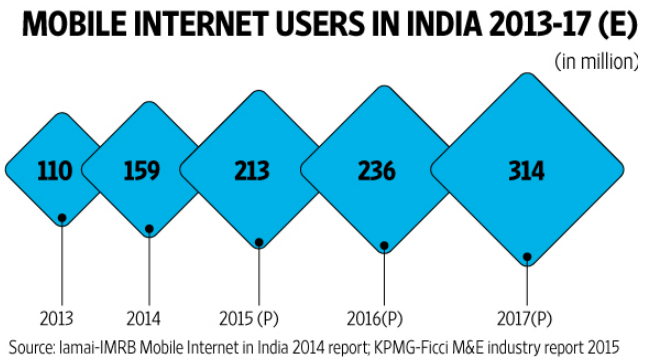
Many banks in US and Europe have already implemented them and few banks in India too have started using these methods. With more and more of banking happening through Mobile and Internet, innovative biometric authentication will become order of the day. This will not only serve the purpose of customer convenience and usability, but also enhance the security features associated with authentication.

Banking on the drive

Technology has been developed to perform banking functions while driving a car. Mobile Banking Apps interact with software in car to recognise voice and transaction can be performed by speaking with the system. Functions like locating a branch or ATM and even transaction like funds transfer and balance check can be performed with this technology. While cars in advanced countries already have interactive systems, it is only matter of time this technology will be widely used in India as well.

Bank on your wrist:

The use of smart watch like Apple Watch and Android smart watches is growing at phenomenal pace. The technology to build
banking app in smart watches is also catching up fast. Smart watches will be used to carry out banking transactions and interact with bankers. We will also see technology being developed where customers will be able to enter a bank by scanning their smart watch.



Smart Branches:

Banks in US and Europe have already set up Smart Bank Branches. Smart Branches will be unmanned. They are equipped with smart kiosks through which customers can interact to perform their banking transactions. Smart branches will be tiny in size compared to size of the existing branches (1/10th of the current branch sizes), thus reducing the cost of operating a branch. Next Generation customers will enjoy the experience of banking in a smart branch.

VALUE OF TRANSACTIONS (IN ₹ CRORE)

MONTH	NEFT	PoS**	PPI	UPI	TOTAL*
November	8,80,780	35,240	1,320	90	94,00,420
December	11,53,760	52,220	2,130	700	1,04,05,530
January	11,35,510	48,120	2,100	1,660	97,01,140
February	10,87,790	39,150	1,870	1,900	92,59,450
March	16,29,450	41,620	2,150	2,390	1,49,58,910
April	12,15,620	41,170	2,230	2,200	1,09,58,250

*Also includes other electronic payment tools such as RTGS, CTS, USSD, IMPS, mobile banking, and NACH; **Including Debit and Credit Cards Source: RBI

Robotics:

Robotics will take the role of bank staff. Customer will be able to interact with Robots for their banking transactions. Robots will function using speech recognition technology and facial expression recognition. While Robotics may be cost effective in advanced countries where cost of operating banks are very high, it may still take some time in India as the cost of Robotics will be far more than the benefit. However it is again a matter of time these technologies is brought to India.

Video Banking (or) Virtual Reality:

Technology is under development to do banking virtually via video. Customers will be able to virtually enter bank through a virtual reality simulation headset and interact with bank representatives and also perform transactions. This technology is already being piloted in a bank in USA.

Intelligent Banking

With advancement of technology in Data analytics and Artificial, understand their desires & needs and offer products & services which will suit their needs.

The various technologies that are being eveloped (smart watch, smart phone, and social media) will all be integrated and interact with each other enabling seamlessly banking. For instance, data from social network media will be leveraged by banks to offer customised products and

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services, well before the customer approaches the bank. Big data will facilitate data mining and analysis to arrive at customer needs.

The customised products and services will be marketed to their customers through their social media account. When the customer accepts the product, the information will be automatically routed to the banking software, which will process the product/service and release the credit facility to the customer or their beneficiary. All these transaction processing will be automatic without any human interference and will be completed in a matter of no time. While most of these technologies are in advance stages of development and implementation in developed economies, it is only a matter of time India will get there, as India always has the history of leap in adapting newer technologies.

5. Conclusion

It is imperative that Banks keep up to pace in catching with the pace of technology change, which in turn will improve profitability of banks. The future of banking in India looks not only exciting but also transformative. so that they are able to offer the products and service that is new in the market and gain a larger pie in the market share. To keep pace with the technology, many banks have created their own innovation where new technology is invented and developed to create next Generation Banking. Banks should be able to roll out products and services faster. They need to adapt quick methodology with a sense of urgency. As the intention moves to digital, the marginal cost of transaction processing will reduce, which in turn will improve profitability of banks. The future of banking in India looks not only exciting but also transformative. Despite the somewhat difficult current operating environment, banks remain the largest financial sector intermediary in India. In future, technology will make the engagement with banks more multi-dimensional.

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