



A STUDY ON BANKING INNOVATIONS IN TECHNOLOGICAL SPACE IN INDIA IN THE INTERNATIONAL SCENARIO

Management

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KEYWORDS

Inclusive growth, Financial inclusion, Virtual Banking, Banking Logistics and financial security

Introduction

Financial Innovations in India

India's banking system has witnessed some major financial innovations particularly after the era of globalization. Now the steps are on to promote financial inclusion schemes that aim to take banking services to yet-to-be banked areas. Financial inclusion or inclusive financing is the delivery of financial services at affordable costs to sections of disadvantaged and low-income segments of society. Development in the field of Information Technology (IT) strongly supports the growth and inclusiveness of the banking sector by facilitating inclusive economic growth. IT improves the front end operations with back end and helps in bringing down the transaction costs for the customers.

Objectives of the study:

1. To study the various financial innovations in Indian banking sector in the globalized scenario.
2. To identify various e-banking services/products adopted by Indian banks.
3. To study and analyze the progress made by Indian banking industry in adoption of technology, particularly in introducing ATM services.

Innovations in Banking Sector

- ECS (Electronic Clearing Services)
- RTGS (Real Time Gross Settlement)
- EFT (Electronic Fund Transfer)
- NEFT (National Electronic Funds Transfer)
- ATM (Automated Teller Machine)
- Retail Banking
- Debit and Credit Cards
- Free advisory services
- Implementation of standing instructions of customers
- Payments of utility bills
- Fund transfers
- Internet banking
- Telephone banking
- Mobile banking
- Selling insurance products
- Issue of free cheque books
- Travellers' cheques and
- Many more value added services

Banks today operate in a highly globalized, liberalized, privatized and competitive environment. IT has introduced new business paradigm in banking sector too.

Challenges of Banking in India

Indian banking industry is facing the dual challenge of increasing penetration and high growth trajectory. Tremendous progress took place in the field of technology which has reduced the world to a global village. Branch banking in the brick and mortar mode has been transformed into click and order channel mode. E-banking refers to making banking products and other services available to wholesale and retail customers through an electronic distribution channel. E-Banking implies banking operations, which is done over World Wide Web. So, e-banking is also referred as internet banking, online-banking, virtual banking or web banking.

E-Banking in India:

Important Milestones

- Arrival of card-based payments - Debit, Credit Card - late 1980s and 1990s

- Introduction of Electronic Clearing Services (ECS) in late 1990s
- Introduction of Electronic Fund Transfer (EFT) in early 2000s
- Introduction of RTGS in March 2004
- Introduction of National Electronic Fund Transfer (NEFT) as a replacement to Electronic Fund transfer/Special Electronic Fund Transfer in 2005/2006
- CTS in 2007/2008

E-Banking Products and Services

Automated Teller Machines (ATMs)
Internet Banking
Mobile Banking
Phone Banking
Tele banking
Electronic Clearing Services
Electronic Clearing Cards
Smart Cards
Door Step Banking
Electronic Fund Transfer

Automated Teller Machine (ATM)

ATM is a computerized telecommunication device that provides the customer of a financial institution with access to financial transactions in a public space without the need for a bank teller.

ATM channel provides opportunity for banks to go for competent and cost effective models. With the advent of ATMs, banks are able to serve customers outside the banking halls.

The most exciting experience for the customers as well as the bankers is that the plastic card is replacing all the hassles of bank transactions, personal attendance of the customers, banking hour constraints, and paper based validations.

Now a customer can withdraw money, deposit money with and without envelope, transfer fund from card to account, pay insurance bills, apply for loan, book air and train tickets, movie tickets, and avail coupons. Even gold coins are able to be withdrawn from ATM counters.

We have now reached an era, where we can use multi function and biometric ATMs, equipped with touch sensitive and user friendly options to transfer funds, book air and train tickets, go for mobile recharge, and even deposit cheques with scanning. As per the Global ATM Market and Forecasts to 2016, the maximum growth of ATMs is taking place in Asia Pacific region. India and Indonesia occupy one fourth of the number of ATMs, and china is accounted for half of the New ATMs.

ATMs were introduced to the Indian banking industry during 1987 by HSBC (and Shanghai Banking Corporation) Bank in Mumbai. According to experts in the industry, ATM segment witnessed a growth rate of 30% since last 5 years in India. ATM terminals in India is expected to grow at a compounded average growth rate of 25% between 2011 and 2015.

ATMS:

Two Types

- Brown Label ATMs
- White Label ATMs

Brown Label ATMs

From the earlier model where banks used to buy outright the ATM machines and bear the cost of service, they are now preferring brown

label ATMs i.e. where the machine and service is outsourced.

Brown label ATMs are those Automated Teller Machines where hardware and the lease of the ATM machine is owned by a service provider, but cash management and connectivity to banking networks is provided by a sponsor bank whose brand (logo) is used on the ATM.

Status of Brown Label ATMs in India

The ATM machine is owned by the third party along with the physical infrastructure. Brown label ATM machines are widespread in India as banks are saving on huge infrastructure costs

White Label ATMs (WLA) These ATM's are purely managed by third party service providers and have their label. These are branded non bank ATM machines. Cash handling, management and logistics are provided by third party.

Debit cards of all banks can be operated through these machines. The role of the concerned bank is only limited to provided account information and back end money transfers to the third parties managing these ATM machines.

- Traditionally, Automated Teller Machines (ATMs) have respective bank's logo.
- But White label ATM doesn't have such Bank logo, hence called White label ATMs.
- RBI has given license / permission to non-bank entities to open such ATMs.
- Any non-bank entity with a minimum net worth of Rs.100 crore, can apply for white label ATMs. (not just NBFC, any non-bank entity can apply.)
- Late 80s: first ATM in India; 2012: RBI issues guideline for White label; 2013: RBI gives license/permission.
- Tata Communications Payment Solutions has become the first company to launch this service in India under the brand name "Indicash". It has a tie up with 37 banks to start with.
- Other White label ATMs- Muthoot Finance, Srei Infra., Vakrangee Software, Prizm Payments, AGS. More than 15 companies have been given such permission.

White label ATM's in India: Important Milestones

- Late 80s: first ATM in India;
- 2012: RBI issues guideline for White label;
- 2013: RBI gives license/permission.

How does the customer benefit?

- As the ATM network expands, more and more people will have easy access to cash as any customer with an ATM card can access white-label ATMs. However, the RBI norm allowing five free ATM transactions will not be applicable at these ATMs.
- While the non-banking company won't be allowed to charge a customer directly for the transaction, the costs are expected to be displayed upfront on the screen. It is likely that the bank may recover the transaction charge from the customer separately.

Facilities at White label ATMs

- Any customer belonging to any bank can use it.
- White label ATM users can also withdraw a maximum of Rs. 10,000 per transaction.
- Open 24/7 and on holidays
- Value added services like mobile recharge, utility bill payments etc.

Internet Banking

The major advantage of Internet banking is that the user can utilize the services from anywhere at any time. It simply requires a personal computer and internet connection.

The user connects to the bank's website through internet and log on to the services by using valid corporate-id, user-id and password.

Need for Internet Banking

- Phenomenal growth of customers and branches
- Banks initiating new technological innovations have an edge over other banks
- The internet offers an avenue to the issue of competitive advantage in the face of redefinition of financial service industry
- Time has come for banks to bring fundamental change in their strategy to redefine customer-banker relationship

Advantages of Internet Banking

- Convenience banking – one-stop financial shop for customers Available anywhere/anytime – 24x7x365
- Low cost, unlimited access and lesser hassles
- Better customer-banker relationship, integrated customer data
- Wider reach to public, competitive edge for banks, enhances image of banks as technology driven bank
- An effective marketing tool for promotion of various schemes of bank

Limitations of Internet Banking

- Setting up an account in the bank may take time for the reason that the e-banking facility is provided by the bank.
- Banking sites may be difficult to navigate at first by the customers who do not have knowledge of computer and internet.
- Some alterations or changes made in the banks sites due to technological advancement may create a problem to customers who have to provide all the personal information once again through online transaction.
- E-banking is time consuming for the customers, though there is option of online transactions, with the result that at the end customers have to run to the ATM for withdrawing the cash.
- No personal contact with any of the bank staff, and if the customer wishes to talk to any bank staff through the telephone, there is no guarantee that he had talked with a right person or not.
- "Hackers" who may access customers' bank account is the main problem to the customers who takes e-banking facility very casually.
- Increasing online frauds and attacks (e.g., Trojan horse) are the other problems of using internet banking.

Credit Cards/Debit Cards

The Credit Card holder is empowered to spend wherever and whenever he wants with his Credit Card within the limits fixed by his bank. Credit Card is a post paid card. Debit Card, on the other hand, is a prepaid card with some stored value.

Every time a person uses this card, the Internet Banking house gets money transferred to its account from the bank of the buyer. The buyers' account is debited with the exact amount of purchases. An individual has to open an account with the issuing bank which gives debit card with a Personal Identification Number (PIN).

Debit card volume sees rapid increase though value remains low
Volume of debit and credit card transactions

SMART CARD

Banks are adding chips to their current magnetic stripe cards to enhance security and offer new service, called Smart Cards. Smart Cards allow thousands of times of information storable on magnetic stripe cards. In addition, these cards are highly secure, more reliable and perform multiple functions. They hold a large amount of personal information, from medical and health history to personal banking and personal preferences.

Institute for Development and Research in Banking Technology (IDRBT)

Established by RBI in 1996. The main purpose of IDRBT is to adopt research and development as well as consultancy in the application of technology to the banking and financial sectors in the country

INFINET

INFINET stands for Indian Financial Network. For working of E-banking, it requires various components like communication channels, servers, networks etc. RBI exercises prime control on e-banking services. This is a satellite based wide area network using VSAT (Very Small Aperture Terminal) technology set up by the RBI in June, 1999.

Major applications on the INFINET

E-mail, ECS (Electronic Clearing Service), Credit and debit, EFT and Transmission of Intercity Cheque, Realization Advices.

Electronic Funds Transfer (EFT)

Electronic Funds Transfer is the electronic exchange or transfer of money from one account to another. The exchange takes place between a single financial or across multiple institutions through computer based systems. RBI introduced EFT to help banks offering their customers money transfer services from account to account of any bank branch or to any other bank branch. The EFT system currently covers all the branches of the 27 public sector banks and 55 scheduled

commercial banks.

Structural Financial Messaging Solution (SFMI)

SFMI is helpful for interbank and intrabank messaging. This message is useful for applications like EFT, RTGS, CFMS etc. SFMS was launched in India on December 14, 2001 by RBI.

National Electronic Funds Transfer (NEFT)

NEFT is an online system for transferring funds of Indian Financial Institutions. This facility is used mainly to transfer funds below Rs. 10,00,000. The NEFT system came into force w.e.f. a 21-11-2005. Public Key Infrastructure (PKI) technique is used in NEFT for maintaining security.

Society for Worldwide Interbank Financial Transactions (SWIFT)

The SWIFT provides reliable and expeditious telecommunication facility for exchange of financial message all over the world. The gateway is in Mumbai. The majority of international interbank messages use the SWIFT network.

Real Time Gross Settlement System (RTGS)

Real time means payment transactions are not subject to waiting period. In RTGS, the transactions are settled as they are processed. Gross settlement means the transactions are settled on one to one to basis without bunching or netting with and other transactions.

Conclusion

E-banking offers a higher level of convenience for managing one's finances even from one's bedroom. However, it continues to present challenges to the financial security and personal privacy. If one is going to use it for financial transactions, he should be aware of the risks involve.

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