

INNOVATIVE TECHNOLOGICAL PRACTICES IN BANKS: A STUDY ON VARIOUS INFORMATION TECHNOLOGY SERVICES OFFERED BY STATE BANK OF INDIA

Mr. Abdul Kadar Aneesh.A¹, Mr Harish Shetty²

*^{1,2}Assistant Professors, Dept of Commerce and Management,
S.D.M College, Ujire, Belthangady D.K*

ABSTRACT

Technology is significant phenomena of modernization and development. Banks have often come across with tremendous technological development. Information technology is increasingly used by banks as a channel for receiving instructions and delivering their products and services to their customers. The use of Information Technology in banking enables the banks to provide Any Time Banking, Customer Service, Tele banking, Home Banking, Plastic Card Services, etc., facilities. These IT services have made the banks to extend their business and made banking transaction more flexible and convenient. The information technology has resulted in tremendous transformation in the customer behavior. Today more & more customers use modern services of the banks rather than traditional services.

In this paper we have discussed in detail the various products & services offered by State Bank of India. SBI is a pioneer in introducing various IT services. So it is apt to know the technological innovations in this bank. The study also highlights the risks & challenges involved in IT in banking, pros & cons of IT in Banking, different uses of information technology, main issues & the scope for IT in banking in the near future.

The research methodology adopted for this study is descriptive research study. The primary data is collected through interaction with the local branch managers of SBI and also with the staff who is dealing with the IT services of the Bank. The secondary data is collected to substantiate the primary data. The various brochures, reports on IT of SBI, Related articles dealing with relevant topic were referred for the study.

Keywords: Information Technology, State Bank of India, IT Services

I. INTRODUCTION

Technology is significant phenomena of modernization and development. Development cannot take place without moving a step forward in technology. The technology has made every sector of the economy to be more cautious and innovative. Banks have often come across with tremendous technological development. Today almost every bank has adopted information technology as a means for improving their business. Information technology is increasingly used by banks as a channel for receiving instructions and delivering their products

and services to their customers. Banks without the use of information technology has been named as traditional banks with less customer base.

Today almost all services are offered through the devices of technology like internet. The customers can perform the banking transactions within a moment at their home itself. The banks in India compete with each other in developing and promoting various information technology services. Out of all others banks State Bank of India is premier public sector bank which has become first bank to introduce the concept of information technology in banks. In this paper we have highlighted various information technology services offered by State Bank of India. The main purpose of this study is to get familiar with varieties of IT services offered by banks.

II. IMPORTANCE OF INFORMATION TECHNOLOGY IN BANKING

Computers were originally destined for a minor role in banks, primarily intended to facilitate accounting transactions. Subsequently, once its superiority was firmly established, it grew in status as a tool for management information and a host of other inventions. Although the accounting aspect is still quite important and relevant, IT has a far greater role to play in day to day banking operations, especially in decision making process. Further, facilities like ATM, Anywhere Banking, Internet as well as Mobile Banking have been increasing their presence. It has to be conceded that 'Information Technology' is not the end in itself, but is useful tool in the hands of the management to leverage business prospects in its favour and enhance efficiency.

Banks now have come under great pressure to reduce operational costs to safeguard their bottom lines. With banking tuning more and more customer-centric with every passing day, technology as an enabler has helped banks to launch a whole array of customer-centric products such as ATMs, Debit Cards, 24 hour Anywhere Banking. Customer Relations Management is now a very potential concept. Internet Banking also has a role to play in ensuring a fair return to shareholders, by facilitating in ensuring greater profits to the banking sector.

The recent emerging trends in self-service channels, namely ATM,s, Call-centers, Internet and Mobile Banking would increase the use of E-banking as this offer the twin benefit i.e. convenience to the customers and reduction and cost of operation to the banks. The popularity of internet banking likely depends upon inculcating in customers about their security and personal privacy of their money and assets.

III. ADVANTAGE OF INFORMATION TECHNOLOGY IN BANKS

24/7 availability of banking services and flexibility are the acknowledged advantages of IT in banking. Better interest rates on deposits and savings accounts that are opened online, wider array of financial products and services for customers are other attractive features of IT in banking. Business people can access their personal and business account information while saving a trip to the bank. You can check your balance whenever you need to, even if the bank is closed. Not only that, but you can pay your bills online as well, which saves both time & money. Another advantage of Internet banking is the ability to easily compare services offered by different banks.

You can buy financial products and apply for loans online, and in doing so, you can compare your options to ensure that you get the best possible services. You can even buy insurance online through Internet banking services.

IV. STATE BANK OF INDIA

Founded in 1806, Bank of Calcutta was the first Bank established in India and over a period of time evolved into SBI. SBI represents a sterling legacy of over 200 years. It is the oldest commercial Bank in the Indian subcontinent, strengthening the nation's trillion-dollar economy and serving the aspirations of its vast population. The Bank is India's largest commercial Bank in terms of assets, deposits, profits, branches, number of customers and employees, enjoying the continuing faith of millions of customers across the social spectrum. The bank operates 15,869 branches (As on 31.03.2014) within India, where it also owns majority stakes in six associate banks. State Bank of India (SBI) has 190 offices in nearly 35 other countries, including multiple locations in the US, Canada, and Nigeria. The bank has other units devoted to capital markets, fund management, factoring and commercial services, credit cards, and brokerage services. The Reserve Bank of India owns about 60% of State bank of India. SBI was awarded seven out of nine awards in the IBA Banking Technology Awards they are The Best Technology Bank of the Year, Best Internet Bank, Best use of Mobile Technology, Best use of Technology in Financial Inclusion, Best use of Technology in Training and E-learning Best use of Technology in Business Intelligence.

V.IT PRODUCTS AND SERVICES OF SBI

5.1 Information Technology

✓ Core Banking Project

CBS environment has been benchmarked to support one billion accounts, over 250 million transactions in a day, and delivering a throughput of over 17,000 transactions per second. Biometric authentication as a second-factor authentication has been implemented in branches for all CBS users. The process for the systematic and proactive risk identification, assessment, measurement, monitoring and mitigation of various risks in the IT vertical has been initiated.

Alternate Channels

Alternate Channels Growth				(Numbers)
As on	ATMs	Kiosks	Cash Deposit Machines (CDMs)	Total
31.03.2013	25,247	1,230	698	27,175
31.03.2014	40,768	1,231	1,516	43,515

ATM

State Bank of India, along with its Associate Banks has one of the largest ATM networks in the world with more than 51,491 ATMs including Kiosks and Cash Deposit Machines as on 31.03.2014. SBI has issued more than 17.04 crores Cards. The ATM Base 24 Switch has recently been upgraded to handle close to 50,000 ATMs.

Cash Deposit Machines (CDM): SBI is aggressive in rolling out CDMs for cash deposit by customers at these machines by using their ATM-cum-Debit card. As on 31.03.2014, the number of CDMs installed was 1,516. These CDMs are available to the customer 24 x 7 for their convenience.

Swayam: State Bank of India has launched barcode based passbook printing kiosk. Swayam will be rolled out at more than 2,500 branches of the Bank. Customers can print their passbooks of

Savings, Recurring Deposit as well as PPF account through the facility round the clock, even after branch timings.

VI. INB & E-COMMERCE

6.1 Internet Banking

Internet banking service is available through the Bank's website "<https://www.onlinesbi.com>". The Bank's internet banking solution is a comprehensive product for both retail and corporate users.

The Bank's Net Banking Platform 'onlinesbi.com' provides secured and hassle-free on-line banking services to its retail and corporate customers, including PSUs and Government Agencies:

- ✓ This cost-effective channel has enabled 63.77 crores transactions during FY 2013-14, achieving 52% growth over the previous year.
- ✓ Our robust Retail Internet Banking platform has also been optimized for visually impaired customers.
- ✓ The Corporate Internet Banking is well suited to Small, Medium and Large Corporates in establishing traction with Government Treasury and Accounts Departments too.

6.2 IT - Foreign Offices

153 Foreign Offices of the Bank in 26 countries use the Finacle Core Banking solution along with a host of add on/surround applications to meet all the regulatory requirements besides providing high class customer experience.

6.3 Enterprise Data Warehouse

'Customer One View' is a solution for a 360 degree view of holdings with the Bank, including that of our Associates and Subsidiaries, namely, SBI Life, SBI Cards, SBI Mutual Funds made available to the Relationship Managers to enable them to offer better customer service. Also, a large number of predictive and analytic reports are regularly being generated by the DWH to aid business planning.

6.4 Networking

The Bank has implemented a secured, robust WAN architecture network connecting branches/offices and ATMs of State Bank Group through Leased lines and VSAT's. The Bank is in the process of migrating to Multi Protocol Label Switching (MPLS) architecture for improved network performance.

6.5 Corporate Web and Mail Services

Internal Social Media "SBI Aspirations" social software is designed to meet the needs of business and empowers bank's employees to be more innovative and productive, where creative ideas can be exchanged that can foster increase in business growth. Bank has made available its presence on External Social Media sites like Facebook, Twitter and YouTube for listening to and engaging with generation Y customers and general public.

6.6 New Businesses (Tech-based products)

A dedicated department develops and launches initiatives in emerging business areas, including tech-based products. Some key initiatives are:

6.6.1 Debit Card

State Bank Group (SBG) continues to lead Debit Card issuance in the country with over 150 million Debit Cards as on 31st March, 2014 and over 40% market share.

Spending by debit cardholders of the SBG across 'Point of Sale' and 'e-Commerce' transactions crossed ₹22,407 crores in FY 2013-14. We have introduced some significant offers like the '3-Swipe Campaign' during August- September, 2013 and 'Shop Big and Gain Big' campaign in collaboration with SBI Card (subsidiary), in October- November, 2013.

6.7 Prepaid Card

The Bank's product range includes the following Prepaid Cards to cater to various payment needs of its customers:

- ✓ **Foreign Travel Card:** The Foreign Travel Card, now a chip based EMV compliant Card, is available in 8 currencies, US Dollar (USD), Great Britain Pound (GBP), Euro, Canadian Dollar (CAD), Australian Dollar (AUD), Japanese Yen (JPY), Saudi Riyal (SAR) and Singapore Dollar (SGD), providing safety, security and convenience to overseas travelers. We have also introduced corporate variants of State Bank Foreign Travel Card (SBFTC) to cater to the needs of corporate employees travelling overseas. Sales stood at USD 83.34 million in FY 2013-14
- ✓ **eZ- Pay Card:** The eZ- Pay Cards are aligned with most of the social schemes of the State and Central Governments in addition to salary payments by corporate entities, thus benefitting millions of households. Sales stood at ₹829.19 crores in FY 2013-14.
- ✓ **Gift Card:** Gift Cards are a preferred option for consumers to gift the 'Freedom of Choice' to their loved ones. Customers can purchase Gift Cards online. Sales stood at ₹128.73 crores in FY 2013-14.
- ✓ **State Bank Achiever Card:** Rolled out in November 2013. This is a re-loadable corporate incentive Card with a validity of 10-years for disbursement of incentives/ awards.
- ✓ **Smart Payout Card:** We launched the Smart Payout Card, a reloadable Card, on 27th April, 2013, for blue collar workers and contract laborers, among others. This Card can also be issued as an 'Add-on Card' to our savings Bank account holders. Sales stood at ₹15.19 crores in FY 2013-14.

6.8 Merchant Acquiring Business (MAB)

The MAB division aims to activate more than 150 million SBG Debit Cards on POS terminals, increase visibility and create a comprehensive electronic infrastructure in the country. SBI already the largest player among Public Sector Banks with around 1, 35,853 terminals (as on 31st March, 2014) in the market. We are also the 4th largest Acquirer in India and have entered into corporate tie-ups with many prominent players, including top educational institutions and hospitals as we continue to tap the huge potential available in the market. During the year the Bank has also launched Mobile POS on a pilot basis and will be rolling it out on a pan-India basis in the next few months.

6.9 Mobile Banking Service

During 2013-14, financial transactions worth ₹3,763 crores were executed through the Mobile Banking Service, resulting in an income of ₹6.43 crores.

- **Green Channel Counter (GCC)**

The Bank has launched the GCC facility in all retail branches (14,981 branches) to enhance convenience to the customers and save on cost and time per transaction. More than 360,000 transactions are taking place on a daily basis through these counters.

- **Self Service Kiosk (SSK)**

The Bank has 1,352 SSKs as on 31st March, 2014 enabling more than 55,000 transactions daily.

- **Green Remit Card (GRC)**

The Bank introduced GRC, a remittance card, on 2nd January, 2012 for facilitating large number of non-home cash deposit transactions at our branches. A cardholder can swipe the card at GCC or at Cash Deposit Machines (CDM) and remit money to the beneficiary whose account number is mapped to the card.

Once the transaction is completed, both the remitter and beneficiary get a confirmation through SMS. The Bank has issued more than 48, 00,000 cards resulting into 1, 81, 00,000 transactions as on 31st March, 2014.

6.10 State Bank Aggregator Service (SBIEPay)

The Bank has launched 'SBIEPay', a payment aggregator service, which facilitates e-Commerce/ m-Commerce transactions among merchants, customers and various financial institutions for all kinds of e-Commerce payments.

6.11 Retail Banking of SBI

The Retail banking application is an integration of several functional areas, and enables customers to:

- Issue Demand Drafts online
- Transfer funds to own and third party accounts
- Credit beneficiary accounts using the VISA Money Transfer, RTGS/NEFT feature
- Generate account statements
- Setup Standing Instructions
- Configure profile settings
- Use e Tax for online tax payment
- Use e Pay for automatic bill payments
- Interface with merchants for railway and airline reservations
- Avail DEMAT and IPO services

VII. E-TICKETING

Through this service the customers can book ticket online through SBI website. To book bus tickets to destinations in Karnataka, log on to the KSRTC website. Provide details about the start and end points of your journey, date of journey and number of tickets. Verify availability of seats on the selected date and confirm the transaction. Select Online SBI to make the payment. Provide your credentials and select the SBI account that will be debited for the payment. You are provided a KSRTC reference number for your e-Ticket.

VIII. SBI E-TAX

Through this service one can pay one's taxes online through SBI E-Tax. This facility enables one to pay TDS, Income tax, Indirect tax, Corporation tax, Wealth tax, Estate Duty and Fringe Benefits tax. When one clicks the e-Tax link in the home page the page is displayed with two links Direct Tax and Indirect Tax.

Internet banking customers can pay tax through site to site integration. For government agencies, which are not Internet-enabled, Online SBI offers the Government Tax Payment facility. This facility is available as a post login feature in the retail and corporate banking sites of the Online SBI portal.

8.1 Bill Payment

It is a simple and convenient service for viewing and paying your bills online. Using the bill payment you can 'view and Pay various bills online, directly from your SBI account. One can pay telephone, electricity, insurance, credit cards and other bills from the comfort of one's house or office, 24 hours a day, 365 days a year. Simply logon to www.onlinesbi.com with one's credentials and register the biller to which you want to pay, with all the bill details. Once the bill is uploaded by the biller, one can make payment online. One can see 'how do i' to learn the steps for using the facility. The e-PAY service is available in various cities across the country and one can now make payments to several billers in one's region.

IX. RTGS/NEFT

One can transfer money from one's State Bank account to accounts in other banks using the RTGS/NEFT service. The RTGS system facilitates transfer of funds from accounts in one bank to another on a "real time" and on "gross settlement" basis. This system is the fastest possible interbank money transfer facility available through secure banking channels in India. RTGS transaction requests will be sent to RBI immediately during working hours post working hours requests are registered and sent to RBI on next working day. One can also schedule a transaction for a future date. One can transfer an amount of Rs.1 lac and above using RTGS system. National Electronic Funds Transfer (NEFT) facilitates transfer of funds to the credit account with the other participating bank. RBI acts as the service provider and transfers the credit to the other Bank's account.

9.1 E-Payment

The customers can pay his insurance premium, mobile phone bills and also he can purchase mutual fund units by coming from the biller's website and selecting state bank of India in the payment option.

LIC PREMIUM: For paying premium of LIC policy logon to www.licindia.com and register customers policy details. When the premium is due select State Bank of India in the make payment option.

SBI Mutual FUND: The customers can invest in the SBI Mutual Fund schemes online. Logon to www.sbimf.com and select the scheme in which customers want to make investment in the payment option select State Bank of India.

9.2 Fund Transfer

The Funds Transfer facility enables customers to transfer funds within their accounts in the same branch or other branches. The customers can transfer aggregating Rs.1 **lakh** per day to own accounts in the same branch and other branches. To make a funds transfer, one should be an active Internet Banking user with transaction rights. Funds transfer to PPF account is restricted to the same branch.

9.3 Third Party Transfer

Customers can transfer funds to your trusted third parties by adding them as third party accounts. The beneficiary account should be any branch SBI. Transfer is instant. Customers can do any number of Transactions in a day for amount aggregating Rs.1lakh. To transfer funds to third party having account in SBI, one need to add and approve a third party, one needs to register one's mobile number in personal details link under profile section. Customer will receive a One Time SMS password on one's mobile phone to approve a third party. If customer does not have a mobile number, third party approval will be handled by your branch. Only after approval of third party, you will be able to transfer funds to the third party. Customer can set limits for third party transactions made from their accounts or even set limits for individual third parties.

9.5 Demand Draft

The Internet Banking application enables them to register demand drafts requests online. Customers can get a demand draft from any of their Accounts (Savings Bank, Current Account, Cash Credit or Overdraft). Customers can set limits for demand drafts issued from their accounts or use the bank specified limit for demand drafts. Customers can opt to collect the draft in person at your branch, quoting a reference to the transaction. A printed advice can also be obtained from the site for their record. Alternatively, they may request the branch to courier it to their registered address, and the courier charges will be recovered from them.

9.6 Cheque Book Request

The Customers can request for a cheque book online. Cheque book can be requested for any of their Savings, Current, Cash Credit, and Over Draft accounts. They can opt for cheque books with 25, 50 or 100 cheque leaves. They can either collect it from branch or request their branch to send it by post or courier. They can opt to get the cheque book delivered at their registered address or they can provide an alternate address. Cheque books will be dispatched within 3 working days from the date of request.

9.7 Account Opening Request

Online SBI enables customers to open a new account online. Customers can apply for a new account only in branches where they already have accounts. They should have an INB-enabled account with transaction right in the branch. Funds in an existing account are used to open the new account.

9.8 Account Statement

The Internet Banking application can generate an online, downloadable account statement for any of their accounts for any date range and for any account mapped to their username. The statement includes the transaction details, opening, closing and accumulated balance in the account. Customers can generate the online

account statement for any date range or for any month and year. The account statement can be viewed online, printed or downloaded as an Excel or PDF file. Customers also have the option to select the number of records displayed in each page of the statement. The options are 25, 50, 75, 100 and ALL.

9.9 Transaction Enquiry

Online SBI provides features to enquire status of online transactions. Customers can view and verify transaction details and the current status of transactions. Their VISA transactions can also be viewed separately. Just log on to retail section of the Internet Banking site with their credentials and select the Status Enquiry link under the Enquiries tab. They will be displayed all online transactions they have performed. To view details of individual transactions, one needs to click the Transaction Reference number link. Customers are displayed the debit and credit account details, transaction amount, narration and transaction status.

9.10 Demat Account Statement

Online SBI enables customers to view Demat account statement and maintain such accounts. The bank acts as your depository participant. In the third party site, one can mark a lien on one's Demat accounts and use the funds to trade on stock using funds in your SBI savings account. Customers can view Demat account details, and generate the following statements: statement of holding, statement of transactions, statement of billing.

X. CONCLUSION

Information technology in banking sector has brought a major transformation. Today the banks have become more competitive in their operation. The use of information technology has made the banks to increase their market share. They could reach those customers who have never availed the banking service. Through IT application banks could operate without branches in rural areas. IT has also promoted paperless banking which is a positive sign for environmental sustainability. Thus IT in banking sector has given a positive movement towards greater development. There are many banks who have implemented information technology in their respective banks offering various services. SBI is a major bank which provides multifarious IT opportunities through its online website. The bank has come with numerous products and services for the benefit of its customers. The bank with its great reputation and brand name could attract many customers for its online services.

REFERENCES

Books:

- [1]. Sisodiya Amith Singh (2006). "Indian Banking in 21st Century". IB Publications, New Delhi.
- [2]. Iyenger, Vijaya Raghavan (2007). "Banking" Excel books Publications, New Delhi.
- [3]. Desai Vasanthi (2010). "Banking Management". Himalaya publications, New Delhi.
- [4]. Tan, M.; Teo, T. S. (2000): "Factors influencing the adoption of Internet banking", Journal of the Association for Information Systems, 1 (5), pp. 1-42