

Innovations In Banking Services For Sustainability : Perspective And Challenges

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Abstract

“If there is one aspect in which we can confidently assert that India is ahead of China, it is the robustness and soundness of our banking system.” - Dr. Manmohan Singh

Over the last three decades the role of banking in the process of financial intermediation has been undergoing a profound transformation in the global financial system. India's banking system has seen some major innovations in the past decade like IMPS, CTS, NUUP, facebook banking, responsible banking, green banking, SMS banking, missed call banking and many more value added services. In increasingly integrated financial systems facing more competition, higher volatilities and wide varieties of risks; innovations have become an essence to provide new products and strategies to better suit different circumstances of time and market and to meet different requirements of participants. This research paper focuses on different service and technology innovations in Indian banking sector in recent days. It also highlights the challenges of innovative banking trends. Total five banks are selected as sample namely State Bank of India, Bank of Baroda, Punjab National Bank, ICICI Bank and YES Bank. 4P's Service Innovation model & Six Dimensional Service Innovation Model are applied on the current strategies of service innovation adopted by selected banks. The present study concludes that despite of numerous challenges faced by banks, the benefits of technology have brought a huge change in the outlook of modern banking.

Keywords: CTS, Facebook Banking, IMPS, NUUP

Introduction

India is one of the top ten economies in the world where the banking sector has tremendous potential to grow. India's banking sector is currently valued at Rs. 82 trillion (US\$ 1.37 trillion). As per industry report by RBI, it has the potential to become the fifth largest banking industry in the world by 2020 and the third largest by 2025. The face of Indian banking has changed completely due to innovations from last decade. Now, banks are reaching out to the masses with technology to facilitate transactions through mobile devices and internet. Competition among the banks has redefined the concept of the entire banking system. Banks are looking for new strategies to attract and retain the customers as well as gain competitive advantage over their competitors in the market. They are using innovative sales and advanced marketing techniques to gain supremacy. The main cause behind this change is changing customers' needs and expectations. Customers no longer want to wait in long queues and spend hours in bricks & mortar banks for single banking transaction. This change leads the bank to development of SMS banking, facebook banking, mobile and internet banking along with availability of service right at the customer's doorstep. With the help of universal banking, banks provide all banking products and services under one roof: While banks are moving towards “Relationship Banking”, customers are moving away from the confines of traditional banking and seeking the convenience of remote electronic banking. Information technology has brought revolution in the working of banks and financial entities all over the world.

Innovation is the application of better solutions to meet new requirements, unarticulated needs/demands or existing

market needs. The term innovation can be defined as something new, original and important in whatever field that breaks into or obtains a foothold in a market or society (Lundvall, 2007). Technological innovations comprise significant technological changes of products and processes. Metcalfe (2006) defined service innovation as a new service concept, service delivery system or client interaction channel that leads to one or more renewed service functions that are new and require new technological, human or organizational capabilities of the service organization.

Technology has been playing a crucial role in the tremendous improvement of banking services and operations. Indian banking industry has moved way ahead both in terms of offering value added services and delivering quality service. It is a well proven hypothesis that sustainable profit for the banks depends on innovation. It was thought that the world financial crisis would impact the Indian banking sector in a serious manner. But, due to strong foundations of Indian banking system with full support from well structured financial systems, the anticipated impact of the world crisis was almost insignificant. Instead, it helped the banks to get strengthened further and become closer to the customer with innovative approaches. Because of innovation, banks appear to be on the path of achieving sustainability and a long-term survival. So, banks need to be able to make the investment and sustain the environment and the culture of innovation.

Review of Literature

Vaish (1978) documented that service sector especially banking sector has become a dynamic component of economic activity and growth. The observable growth in internet, web-based services and high-technology

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environmental services indicates that knowledge intensive services are having a greater value added role in economic growth. The composition of banking transactions signifies the economic happenings in the country. Technological developments have made a sea change in the banking system from a totally regulated environment to a market driven competitive system. Avasthi & Sharma (2000) reported that advancements in technology are set to change the face of banking business. Technology has transformed the delivery or service channels in retail banking. The study also explored the challenges that banking industry and its regulator face. Janki (2002) described that how technology is affecting the employees' productivity. In India particularly public sector banks will need to use technology to improve operating efficiency and customer services. The study concludes that technology is the only tool to achieve their goals. Jalan (2003) articulated that IT revolution has brought about a fundamental transformation in banking industry and opined that no other sector has been affected by advancement in technology as much as banking sector. Bradley and Stewart (2003) observed that technological change and the advent of the internet are among the most dramatic and challenging areas of change for service sector. Study identified that technological innovations in the banking sector have been shown to increase productivity of banking industry around the world. Mittal and Kumar (2007) studied the role of technology in banking sector. Authors analyzed investment scenario in technology in Indian banks but this study was related to the time period before the Information Technology Act and at that time technology in Indian banks was very low. Jha et al. (2008) analyzed the use and effectiveness of information technology in the Indian Banking sector. Authors observed that the technology up-gradations, innovations and its access to various functional areas of banking are of the highest level in India and banking being one of the fastest growing sectors of the Indian economy where technology is customer-oriented service.

From the above reviews it is observed that the banking industries itself adopted various innovative schemes for furtherance of their business and to attract more and more customers. All these help them to maintain their sustainability and keep their brand image even in the competitive environment. Further, it is observed that major innovations took place in this field in recent years.

Research Methodology

Descriptive research design is used for current study as it describes and analyses the data representing the behaviour of the phenomena and their relationship. Total five banks are selected as sample, out of which three are public sector banks namely State Bank of India, Bank of Baroda and Punjab National Bank; and remaining two are private sector banks namely ICICI Bank and YES Bank. Study is purely based on secondary data which is collected mainly from official websites of selected banks and RBI. Two models of service

innovation- 4P's Service Innovation model & Six Dimensional Service Innovation Model are applied on the current strategies of service innovation adopted by selected banks. An analysis has been carried out by applying these models for identifying and comparing various strategies adopted by the selected banks.

Objectives of the Study

1. To study the recent service and technology innovations in banking sector.
2. To study the challenges faced by banks in changing banking scenario.

Technology Innovations

Information technology has given rise to new innovations in the product designing and their delivery in the banking and finance industries. Financial innovation associated with technological change totally changed the banking philosophy and that is further tuned by the competition in the banking industry. Challenging business environment within the banking system create more innovation in the fields of banking product, process and market.

Aadhaar Payments Bridge System (APBS)

It is a system that facilitates seamless transfer of all welfare scheme payments to beneficiary residents' Aadhaar Enabled Bank Account. This system serves the goal of Government of India and Reserve Bank of India in financial inclusion by way of processing government disbursement like LPG subsidies using Aadhaar number.

Immediate Payment Service (IMPS)

IMPS is an instant and 24x7 interbank electronic money transfer service through mobile phones in India. This facilitate customers to use their mobile instruments as a channel for accessing their bank accounts and put interbank fund transfers in a high secured manner with immediate confirmation features. IMPS funds transfer can be done through Mobile Number and MMID & Account Number and IFSC.

National Unified USSD Platform (NUUP)

It is a mobile banking service provided by National Payment Corporation of India (NPCI) which works on USSD technology. Unstructured Supplementary Service Data (USSD) is a technology unique to GSM (Global System for Mobile Communications) handsets. The service allow every banking customer to access banking services with a single number across all banks irrespective of the telecom service provider, mobile handset company or the region. A common platform for all banks instead of each bank having to develop a platform is a strategic move by NPCI to help banks and let them focus on customers to enable this service while NPCI manages the technology behind the platform. Customers can access the mobile banking menu of bank just by dialling the

short code *99# from their mobile phone. The maximum limit of fund transfer per customer on this service is Rs.5000 per day and Telecom Service Providers will charge for accessing this service.

Green Banking

Green Banking is comparatively a new development in the financial world. It is a form of banking taking into account the social and environmental impacts and its main motive is to protect and preserve environment. Green Banking means promoting environmental-friendly practices and reducing carbon footprint from banking activities. This comes in many forms like using internet banking instead of branch banking and paying bills online instead of mailing them.

Facebook Banking

It is a service that allows you to link your Facebook profile to your Mobile Banking profile. It enables you to check your balance, recharge mobile and transfer funds on Facebook. A first-of-its kind app on Facebook "Pockets by ICICI Bank" offers you the convenience of banking on Facebook. All you need to do is generate a coupon for the required amount and send it to your friend via SMS/E-mail/Facebook personal notification. Your friend can redeem the same instantly in his any bank account by authenticating himself and the job's done.

Responsible Banking

Responsible Banking approach makes the best use of skills and resources and achieves the greatest impact in a business-like, commercially viable manner – addressing social, environmental and financial benefits for banks and customers by bringing about a systemic change rather than an isolated one-off intervention. It aligns with bank core business, strategically differentiates the bank in a crowded marketplace, helps in developing financial solutions for developmental problems, and underpins each transaction via the Environment and Social Policy.

ASBA

Application supported by Blocked Amount (ASBA) enables investors to apply for IPO/FPO/NFO issues without making immediate payment. The application amount is "Blocked" in investor's Bank account and is released in a proportionate amount on allotment of shares.

Cash Deposit Machine

Cash Deposit Machine (CDM) is self-service terminal that enables you to deposit cash without any manual intervention of the branch officer. There is no need to fill deposit slips and stand in long queues at the cash counter. To use the CDM, you need to have Bank Debit Card or Bank's account number in which you wish to deposit the money.

Cheque Truncation System (CTS)

Truncation is the process of stopping the flow of the physical cheque issued by a drawer at some point with the presenting bank en-route to the drawee bank branch. An electronic image of the cheque is transmitted to the drawee branch by the clearing house instead of physical movement along with relevant information like date of presentation, presenting bank and MICR band etc. With introduction of this system, there has been a quantum jump in the number of cheques processed through this system particularly at New Delhi and Chennai, reflecting the growing acceptability of the system. As the coverage of CTS is further widened by bringing more centres under its umbrella, the volumes will grow further spreading the benefits of this system to a larger number of customers.

Missed Call Banking

It is a new service from banks which involves Banking by giving a Missed Call to pre-defined mobile numbers. This service is available for saving, current, overdraft and cash-credit accounts. Services include balance enquiry, mini statement, blocking of ATM card, car and home loan enquiry. This service can only be activated for the mobile number that is registered for a particular account with the Bank.

Service Innovation Models

Several innovation models have been proposed by various authors under various titles. For the purpose of this study, two models of service innovation are considered. The first one is 4P's Service Innovation Model given by Bessant and Tidd; and second one is Six-Dimensional Service Innovation Model given by Pim Den Hertog.

4P's Service Innovation Model

Bessant and Tidd (2007) identified 4P's of innovation: Product Innovation, Process Innovation, Position Innovation and Paradigm Innovation. Product Innovation is new designs of products or features seen in tangible products such as house appliances, etc. Process innovation consists of fundamental changes in fabrication procedures or modifications in manufacturing methods, sequence or equipments which are used to create products. Position innovation refers to contextual shifts with regard to the way products/services are introduced. Paradigm innovation refers to change in mental models which frame the actions or behaviours of a social entity and motivates their interest in performing new routines or engaging in practices that may have previously been devalued. Thus, a paradigm innovation may lead to shifts in perceptions, values and belief systems that generate new actions and behaviours as well as motivate new practices or routines. Banks can satisfy their customers only by providing customized, cost effective and timely services. With the help of technology banks are able to provide plethora of products and services to their customers which suit them.

Six Dimensional Service Innovation Model

A conceptual framework for service innovation was developed by Pim Den Hertog (2010) through a Six-Dimensional Service Innovation Model. They define Service Innovation as a new service experience or service solution that consists of one or several dimensions. The first dimension is Service Concept or Service Offering. The second dimension is the New Customer Interaction and the role customers play in the creation of value. The third

dimension is the New Value System or set of new business partners who co-produce a service innovation. The fourth dimension is related to new revenue model. The fifth dimension is the New Delivery System. The sixth dimension is New Technology.

Application of Service Innovation Models

An analysis has been carried out by applying service innovation models for identifying and comparing various strategies adopted by the selected banks.

(See Table 1 and Table 2)

Table 1: 4P's Service Innovation Model

<i>Banks</i>	<i>Product Innovation</i>	<i>Process Innovation</i>	<i>Position Innovation</i>	<i>Paradigm Innovation</i>
State Bank of India	One Rupee Bank / E-RAIL	SMS Unhappy	Expansion Abroad	Doorstep Banking
Punjab National Bank	Xpress Money Remit Card	Miscall Banking/CDM	Expansion Abroad	Mobile Banking
Bank of Baroda	Baroda SME Gold Card/ Pension AADHAAR Card	Sustainable Investment Banking	Project- Navnirmaan	Service Delivery
ICICI Bank	3-in-1 Online Trading Account	IMPS/NUUP	APBS	Facebook Banking
Yes Bank	Honey Farming	Responsible Banking	Entrepreneurship Programme	Bricks and Clicks Model

Source: Compiled by authors

Table 2: Six Dimensional Service Innovation Model

<i>Banks</i>	<i>Service Offering</i>	<i>New Customer Interaction</i>	<i>New Value System</i>	<i>New Revenue Model</i>	<i>New Delivery System</i>	<i>New Technology</i>
State Bank of India	Broking Services/ Domestic Treasury	Crorepati Only Branch	Link with Kirana Shops	One Rupee Banking	Online Account Opening	Banking Anywhere
Punjab National Bank	E-Tax Payment/Online Loan Application Service	Single Window Service	Mobile Banking/ Internet Banking	Merchant Banking/ Insurance	Doorstep Banking Services	Cash Deposit Machine
Bank of Baroda	NRI Services	ASBA/Rural Banking	Baroda e Shoppe	Wealth Management	Online Feedback System/e- Lobbies	Baroda Instapay
ICICI Bank	Tab Banking Services	Referral Programme	Facebook Banking	My Money Service	Online Account/ Insurance	Digital Banking
Yes Bank	Yes PayNow/ Yes Remit Services	YES First Women	Knowledge Banking	Money Monitor/Cash Management Services	Double Security	YES Touch

Source: Compiled by authors

Challenges

The banking industry is changing at a phenomenal speed. While at the one end, we have millions of savers and investors who still do not use a bank, another segment continues to bank with a physical branch. Banks are setting up alternative delivery channels to cut down their operating costs like internet banking, mobile banking, SMS banking, Facebook banking and centralized transaction processing etc. Technological changes in Indian banking system presents unique opportunities and challenges for the banking industry. Developing or acquiring the right technology, deploying it optimally and then leveraging it to the maximum extent is essential to achieve and maintain high service and efficiency standards while remaining cost effective and delivering sustainable return to shareholders. Managing technology is therefore a key challenge for the Indian banking sector. Developing countries like India have a huge number of people who don't have access to banking services due to scattered and fragmented locations. But if we talk about those people who are availing banking services, their expectations are raising as the level of services are increasing due to the emergence of Information Technology and immense competition between the services & products provided by different banks. The primary challenge is to give consistent service to customers irrespective of the kind of customer whether rural or urban. Retention of customers is going to be a major challenge. Even with SMS Banking, Phone Banking and Internet Banking many consumers still prefer the personal touch of their neighbourhood branch bank.

However dependency on the network has brought IT department's additional responsibilities and challenges in managing, maintaining and optimizing the performance of retail banking networks. Ensuring that all bank products and services are available at all times and across the entire organization to generate revenues and remain competitive. Besides, there are network management challenges whereby keeping these complex, distributed networks and applications operating properly in support of business objectives becomes essential. Specific challenges include ensuring that account transaction applications run efficiently between the branch offices and data centres. Banks in India will now have to work towards a vision to have an enhanced retail delivery system. Such a system would include transformed branches, enhanced telephone services and leading-edge internet banking functions that provide a consistently positive multi-channel experience for the customer. Some of others challenges that the banks are facing today are diversified needs of customers, diminishing customer loyalty, coping with regulatory reforms and keeping pace with technology up-Gradations.

Conclusion

India is fastest growing economy in the world where the banking sector has tremendous potential to grow. Today mobility and customer convenience are viewed as the primary factors of growth and banks are continuously

exploring new technology with terms such as mobile solutions and cloud computing. Now the goal of banking is not just to satisfy but also to engage with customers and enrich their experience. This can be done through use of service and technology innovations. Due care will have to be made while embracing technology and transforming traditional touch points to electronic ones so that human touch with customers is also not lost. With technology occupying a pivotal role in delivery of banking services, the expectations of the consumer have also been growing. Broadly, these expectations are swift service with minimal response time, efficient service delivery, tailor-made and value-added products to suit specific needs, hassle-free procedures, minimum transaction costs and personalized service. However, Indian banking industry faced the numerous challenges such as increasing competition, diversified needs of customers, diminishing customer loyalty and keeping pace with technology up-Gradations; the benefits of technology have brought a huge change in the outlook of modern banking

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