



Innovation and Challenges in Indian Banking

Sanjay Kanti Das

Department of Commerce, Lumding College, Nagaon, Assam, India- 782447.

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ABSTRACT

Indian banking system touches the lives of millions and has to be inspired by larger social purpose and has sub-verse national priorities. Technology has been playing a crucial role in the tremendous improvement of banking services and operations. The specific objectives of this research are to study the bank marketing mix strategies, current challenges and to identify and analyse service innovation initiatives in selected banks. The study is a conceptual one based on survey of literature. Two models of innovation 4P's of Innovation model by Bessant and Tidd (2007) and Six Dimensional Service Innovation Model by Pim den Hertog et al., (2010) were used in the study. It is observed that banks in India are moving towards sustainability through social banking and innovative service operations and offerings. It is found that both types of banks have embraced service innovation as a part of their future banking strategy and are moving continuously towards customer-centric and service-centric banks. Indian banking industry has moved way ahead both in terms of offering value added services and delivering quality service. The most pertinent challenge is the very presence of large number of un-remunerative branches, low productivity, overstaff and the archaic methods of operations. All these factors have affected the productivity and profitability of the bank concerned.

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Introduction

Indian banking industry has moved way ahead both in terms of offering value added services and delivering quality service. It was thought that the world financial crisis would impact the Indian banking sector in a serious manner. But because of the strong foundation of Indian banking system with the support from well structured financial system, 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. Banks appear to be on the path of achieving sustainability and a long-term survival because of innovation.

Innovation is defined as the use of new knowledge to offer a new product or service that customers want (Afuah, 1998). The new knowledge here refers to technological or market knowledge. It is the introduction of a new good, introduction of new method of production, the opening of a new market, the conquest of a new source of supply, carrying out of the new organisation of any industry (Schumpeter, 1971). Innovation is idea, practice or object that is perceived as how by an individual or other unit of adoption (Rogers, 1995). It may refer to incremental, radical, and revolutionary changes in thinking products, processes or organisations (McKeown, 2008).

Innovation has always been a sought after area for organisations in any country. Innovation is identified as the main driver for companies to prosper, grow and sustain a high profitability (e.g. Drucker, 1988; Christensen, 1997). Research (e.g. Ford, 1996; Luecke and Katz, 2003; Cabral, 2003; Andrew, 1986 suggests that the term 'innovation' can be defined in terms of a new or innovative idea applied to initiating or improving a product, process, or service. Innovation has been a buzz word in banking right from beginning. Many researchers have contributed their best towards developing frameworks for

innovation. Several authors have developed various frameworks, drivers, and steps on how to be innovative from an organisation perspective.

Broadly the innovations are of two types: technological (Information and communication technologies); and non-technological (R & D, human capital, intangible assets). Different types of innovations in the services sector may be are: opening of new markets, new ways of managing finance, new ways of organising administration, new sources of raw material, new methods of production, creation of new services and new processes (National Knowledge Commission, 2009).

Technological knowledge is knowledge of components, linkages between components, methods, processes and techniques that go into a product or service. Market knowledge is knowledge of distribution channels, product applications and customers' expectations, preferences, needs and wants (Afuah, 1998). No matter how the paradigm shifts due to external factors like technology and environment, the process of innovation cannot be separated from a bank's strategic and competitive context.

Now, in addition to other factors, performance is a function of innovation. Innovation inputs are information and communication technology, R & D and human capital, which brings organisational change and outputs are productivity, profitability, efficiency and growth. An analysis of service sector innovation and performance in tertiary sector, in general, and of banking sector, in particular is need of time. Some of the innovations in banking sector are: introduction of ATMs, credit card, and debit card, smart card, demat account, senior citizens account, money transfers, core banking, various kinds of insurance, mobile banking, internet banking, mutual funds, filing IT returns and online taxation, updating current market trends,

investing in diversified portfolio, employees retaining schemes, and so on.

The concept of “financial innovation” can be defined as making and promoting new financial products and services, developing new processes to facilitate financial activities, to interact with customers and to design new structures for financial institutions. Financial innovations lower cost of capital, reduce financial risks, improve financial intermediation, and hence, enhancing welfare. The primary function of financial system is to facilitate the allocation and deployment of economic resources in an uncertain environment (Merton, 1992). Financial innovation is helpful in ensuring smooth functioning and improves the overall efficiency of the system by minimising cost and reducing risk. More generally, financial innovation has been a central force driving the financial system toward greater economic efficiency (Merton and Bodie, 2005). Avasthi & Sharma (2000-01) have analysed in their study that advances in technology are set to change the face of banking business.

This study aims at identifying the initiatives of some selected public and private sector banks in India towards sustainability through a planned and systematic service innovation. Study also focuses on some of the recent innovative trends in banks in India. Innovation models of Bessant and Tidd (2007) and Six Dimensional Model of Service Innovation developed by Pim den Hertog et al. (2010) were used for this purpose.

Review of Literature

In recent years, the service sector has become a dynamic component of economic activity and growth. The observable growth in internet, web-based services and high-technology environmental services indicates that knowledge intensive services are having a greater value-added role in economic growth. Within the services, the banking sector plays a significant role in the economic development of the country. The size and composition of banking transactions signifies the economic happenings in the country (Vaish, 1978). Liberalisation of financial services and technological developments have made a sea change in the banking system, from a totally regulated environment, the banking sector has gradually evolved into a market driven competitive system.

Technology has transformed the delivery channels by banks in retail banking. It has also impacted the markets of banks. Janki (2002) analysed that how technology is affecting the employees' productivity. Hua (2009) investigates the online banking acceptance in China by conducting an experiment to investigate how users' perception about online banking is affected by the perceived ease of use of website and the privacy policy provided by the online banking website. Jalan (2003) articulated that IT revolution has brought about a fundamental transformation in banking industry and opined that perhaps no other sector has been affected by advancement in technology as much as banking & finance. Mittal & Dhingra (2007) and Padhy (2007) studied the role of technology in banking sector. Sachan and Ali (2006) observed that the diffusion of information and communication technologies (ICT) has been a prime vehicle of technological progress and services in general and banking in particular are the main beneficiaries of investment in ICT. Empirical evidence suggests that technological innovations in banks have been larger than in the rest of the economy. Bradley and Stewart (2003) observed that the financial services environment has been subject to changes on many fronts. Technological change and the advent of the

internet are among the most dramatic and challenging areas of change for the sector. Technological innovations have shown the increased productivity as stated by Rishi and Saxena (2004). Study identified that technological innovations in the banking sector in industrialised countries have been shown to increase productivity of banking industry around the world. Arora (2003) highlighted the significance of bank transformation. Technology has a definitive role in facilitating transactions in the banking sector and the impact of technology implementation has resulted in the introduction of new products and services by various banks in India. Mohan (2003) expressed his views regarding the transformation in Indian Banking that if Indian Banks are to compete globally, the time is opportune for them to institute sound and robust risk management practices. Sandhu (2003) observed the impact of IT and particularly e-delivery channels on the performance of Indian banking system. Shapiro (2000) studied the effects of cyberspace on efficiency and productivity of banks.

Another study by Ferreira and Godinho (2005) has identified the relationship between innovation and performance for services sector in Portugal. As per Roberts and Raphael (2007) the vast majority of observed innovative activity is based on ideas sourced from outside the focal firm and innovation diffused very quickly across the competing banks. The study puts emphasis on relationship between innovation and competitive advantage. Jha et al. (2008) have analysed the use and effectiveness of information technology in the Indian Banking sector. The study observes that the technology access, up-gradations and innovations in 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.

Kumar and Gulati (2008) examine the issue of convergence of efficiency levels among Indian public sector banks (PSBs) during the post-reform period. Lewrick (2008) gives innovativeness, capabilities and potential (ICP) model which can be used to audit the management capability to innovate and to monitor how sales increase. The model has been found to be effective in predicting the success of the innovation strategy used by the company.

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. These has resulted their sustainability and keep their brand image even in the competitive environment. Further, technology is one of the important segments where maximum stresses are provided for dissemination of innovative ideas and it is observed that major innovation took place in this field in recent years.

Objectives of the Study

1. To review the bank marketing mix strategies of banking institutions in India.
2. To identify the major issues and challenges of banking institutions in India.
3. To identify and analyse service innovation initiatives in selected banks
4. To make a comparative study of these initiatives with reference to the two innovative models of Bessant and Pim den Hertog

Methodology

The study is a conceptual one based on survey of literature. For the purpose of the study, the official web sites of the

selected banks namely State Bank of India, Punjab National Bank, Bank of Baroda, Bank of India, Ing Vyas Bank, YES Bank and ICICI Bank were considered along with additional literature. The period of the study is for three months from January to March, 2013. 4Ps of Innovation model by Bessant and Tidd (2007) and Six Dimensional Service Innovation Model by Pim den Hertog et al., (2010) are used to study the research objectives. An analysis has been carried out by applying the above models to identify and compare various strategies adopted so far by the above banks keeping in tune with the selected models.

Bank Marketing Mix and Strategies

Marketing approach in banking sector had taken significance after 1950 in western countries and then after 1970 in India. The first major step in the direction of marketing was initiated by the State Bank of India in 1972, when it recognised itself on the basis of major market segments, dividing the customers on the basis of activity and carved out four major market segments. New banking perceptiveness oriented toward market had influenced banks to create new market. Banks had started to perform marketing and planning techniques in banking in order to be able to offer their new services efficiently.

Marketing scope in banking sector should be considered under the service marketing framework. Performed marketing strategy is the case which is determination of the place of financial institutions on customers' mind. Bank marketing does not only include service selling of the bank but also is the function which gets personality and image for bank on its customers' mind. On the other hand, financial marketing is the function which relates uncongenialities, differences and non-similar applications between financial institutions and judgment standards of their customers.

The marketing comprehension that is performed by banks since 1950 can be shown as in following five stages (Gunal Once, 2001):

1. Promotion oriented marketing comprehension
2. Marketing comprehension based on having close relations for customers
3. Reformist marketing comprehension
4. Marketing comprehension that focused on specialising in certain areas
5. Research, planning and control oriented marketing comprehension

In our developing economy, the formulation of a sound marketing mix is found a difficult task. The nationalisation of the Reserve Bank of India is a landmark in the development of Indian Banking system that have paved numerous paths for qualitative-cum quantities improvements in true sense. Subsequently, the RBI and the policy makers of the public sector commercial banks think in favour of conceptualising modern marketing which would bring a radical change in the process of quality up gradation and village to village commercial viability.

The first task before the public sector commercial Banks is to formulate that Bank marketing mix which suits the national socio-economic requirements. Some have 4 P's and some have 7 P's of marketing mix. The common P's of bank marketing mix are as follows:-

Product: First among the P's of bank marketing is product mix. Product stands for both goods and service combination offered to the public to satisfy their needs. In the highly regulated banking industry all offered the same type of products with slight variation.

Price: Price is a critical and important factor of bank marketing mix due numerous players in the industry. Most consumers will only be prepared to invest their money in search of extraordinary or higher returns. They are ready to pay additional value if there is a perception of extra product value.

Promotion: One of the most important elements of marketing mix of services is promotion. The promotion is to inform and remind individuals and persuade them to accept, recommend or use of a product service or ideas. Promotion is a demand stimulating aid through communication. When a bank comes out with a new product, it makes its target customer segment aware of it only through marketing promotion. Bank Marketing is actually is the marketing of reliability and faith of the people. It is the responsibility of the banking industry to take people in favour through word of mouth publicity, reliability showing through long years of establishment and other services.

Place: The most important element in distribution strategy relate to this issue of location of the banks to render their service. Distribution means delivery of the products or service at the right time and at the right place. The place where the banking products or service are delivered is an important element in bank marketing.

Process: The process is crucial to the bank marketing strategy. It gives value to the buyer and an element of uniqueness to the product. It is very significant because it provides competitive advantage to the bank. The importance of process in bank marketing strategy is based on 'value chain concept' given by Michael Porter (1996). The concept basically stresses close attention to all the organisational activities which go into marketing the final product to the customer.

People: The Indian banking industry is not an exception to the modern forces of changes and competition. Many new ideas and strategies have been introduced since the introduction of the new economic policy. Like any other service industry, banking is a labour intensive industry. The human factor plays a pivotal role in the running of the businessmen unlike machine have varying attitudes, moods, heterogeneous cultures, feelings and above all, different aspirations. People are crucial to the success of any business. It is far more so in a service oriented industry like banking.

Physical Evidence: Physical evidence is the strategic tool for the bank marketer. Banking products are intangible. Tangibilising the intangible commodity is a major challenge to the bank marketer.

Personal Selling: Due to the characteristics of banking services, personal selling is the way that most banks prefer in expanding selling and use of them. Personal selling occurs in two ways. First occurs in a way that customer and banker perform interaction face to face at branch office. Second occurs in a way that customer representatives go to customers' place. Customer representatives are specialist in banks' services to be offered and they shape the relationship between bank and customer.

Public Relations: Public relations in banking should provide avenues for establishing most effective communication system, creating sympathy about relationship between bank and customer, and giving broadest information about activities of bank.

Challenges Facing by Banking Industry

The bank marketing is than an approach to market the services profitability. It is a device to maintain commercial viability. The changing perception of bank marketing has made it a social process. The significant properties of the holistic

concept of marketing management has made bank marketing a device to establish a balance between the commercial and social considerations, often considered to be opposite of each other. A collaboration of two words 'banks and marketing' thus, focuses our attention on the following:

- Bank marketing is a managerial approach to survive in highly competitive market as well as reliable service delivery to target customers.
- It is a social process to sub-serve social interests.
- It is a fair way of making profits
- It is an art to make possible performance-orientation.
- It is a professionally tested skill to excel competition.

A) Rural and Social Banking Issues

Since the second half of 1960s, commercial banks have been playing an important role in the socio-economic transformation of rural India. Besides actively implementing Government sponsored lending schemes, Banks have been providing direct and indirect finance to support economic activities. Mandatory lending to the priority sectors has been an important feature of Indian banking.

The Narasimham committee had recommended for doing away with the present system of directed lending to priority sectors in line with liberalisation in the financial system. The recommendations were, however, not accepted by the Government. In the prevailing political climate in the country any drastic change in the policy in this regard appears unlikely. The banking system is expected to reorient its approach to rural lending. 'Going Rural' could be the new market mantra. Rural market comprises 74% of the population. Bank's approach to the rural lending will be guided mainly by commercial considerations in future.

Commercial Banks, Co-operatives and Regional Rural Banks are the three major segments of rural financial sector in India. Rural financial system, in future has a challenging task of facing the drastic changes taking place in the banking sector, especially in the wake of economic liberalisation. There is an urgent need for rural financial system to enlarge their role functions and range of services offered so as to emerge as "one stop destination for all types of credit requirements of people in rural/semi-urban centers".

Barring commercial banks, the other rural financial institutions have a weak structural base and the issue of their strengthening requires to be taken up on priority. Co-operatives will have to be made viable by infusion of capital. Bringing all cooperative institutions under the regulatory control of RBI would help in better control and supervision over the functioning of these institutions. Similarly, RRBs as a group needs to be made structurally stronger. It would be desirable if NABARD takes the initiative to consolidate all the RRBs into a strong rural development entity.

Small Scale Industries have, over the last five decades, emerged as a major contributor to the economy, both in terms of employment generation and share in manufactured output and exports. For SMEs, banks should explore the option of E-banking channels to develop web-based relationship banking models, which are customer-driven and more cost-effective. With SME sector emerging as a vibrant sector of the Indian economy, flow of credit to this sector would go up significantly. Banks will have to sharpen their skills for meeting the financial needs of this segment. Some of the Banks may emerge as niche players in handling SME finance. Flow of credit to this Sector

will be guided purely by commercial considerations as Banks will find SMEs as an attractive business proposition.

B) Competition from Global Players

The most pertinent challenge is the very presence of large number of un-remunerative branches, low productivity, overstaff and the archaic methods of operations. All these factors have affected the productivity and profitability of the bank concerned. Global competition has become threat as well as motivation for Indian banks. In the era of IT and WTO, Indian banks should also make their place/image in the foreign countries. They should provide the products/services in foreign countries as per their demands and expectations.

• **Entry of New Private Sector Banks:** WTO regime enhanced the entry of New Private Sector Banks in Indian banking industry and these banks are generating the element of competition which further improved the quality of services and hence gain importance in foreign markets.

• **Quality of Services:** Each and every bank should provide efficient quality of services to win the trust of the customers particularly our public sector banks. E-delivery channels should be introduced in a very effective manner.

• **Strict Rules for Accountability:** RBI should make strict rules for the accountability which will help to increase the performance of the employees and hence of branches too as employees with lower performance can be pointed out and that of with good performance can be awarded.

• **Competency Gap:** The competency gap needs to be addressed simultaneously otherwise there will be missed opportunities. Placing the right skill at the right place will determine success. The focus of people will be doing work but not providing solutions, on escalating problems rather than solving them and on disposing customers instead of using the opportunity to cross sell.

• **Other Issues:** Although banking sector reforms have created a high competitive and dynamic environment for commercial banks but at the same time, these reforms have created glaring issues that should be tackled very carefully in the era of IT and WTO. The following are the major issues:

1. A widening gap in the productivity of various bank groups- it is a threat and also motivation for many bank groups.
2. Widening profitability gap among bank groups under study
3. High rate of NPAs
4. Fast shifting of potential customers from public sector banks to new private sector banks and foreign banks and hence created an issue of customer retention for public sector banks
5. Penetration of new private sector banks and foreign banks in semi-urban and rural areas have become survival factor for public sector banks
6. Poor quality of services by many public sector banks created issue of survival in such a competitive environment
7. Lack of autonomy in HRM policies, especially for public sector banks
8. Lack of accountability
9. Loss making branches
10. Technology gap among private and public sector banks
11. Merger and acquisition
12. Privatization of public sector banks
13. Increasing customer expectations and demands
14. Threat of non-banking institutions and non-financial companies
15. Intensified competition within the banking sector, competition from global banking giants.

Strategic options to cope with the challenges

The banking industry in India is undergoing a major change due to the advancement in Indian economy and continuous deregulation. These multiple changes happening in series has a ripple effect on banking industry which is trying to be organized completely, regulated sellers of market to completed deregulated customers market. As a result, the market place has been redefined with new rules of the game. Banks are transforming to universal banking, adding new channels with lucrative pricing and freebies to offer. New channels squeezed spreads, demanding customers better service, marketing skills heightened competition, defined new rules of the game pressure on efficiency. Need for new orientation diffused customer loyalty. Bank has led to a series of innovative product offerings catering to various customer segments, specifically retail credit.

New channels will be a primary driver of productivity enhancement in Indian banks in the next decade. Success will depend on initiatives taken by the banks.

• **Mobile Banking:** Mobile banking could be a revolution in banking. There are essentially two mobile banking meta-markets in India: rural and urban. Over the next five years, unbanked rural markets could begin to rival the urban market in size. In urban areas, many consumers have bank accounts, but still rely on cash for 90% to 95% of small-ticket transactions. Mobile payments would not only seek to change the cash-based nature of transactions, but also would be a tremendous convenience for these consumers for universal financial access.

• **Investment in new applications:** Banks need to begin investing in next-generation mobile & banking applications. Such investments have to be made in advance in anticipation of the three waves in usage of mobile phones for banking — online banking on mobile, usage of mobile phone on POS for acceptance, and payments on mobile phones.

• **Use of 3G technology:** Further the advent of 3G in mobile telephony in India will open many avenues for richer service delivery. Priority customers can get 'face to face' financial planning advice on their mobile devices from a set of centrally located advisors.

• **ATMs-touch points:** ATMs are likely to continue to be installed at a rapid pace for the next several years in India. Those banks which have a strategy in place to use ATMs as customer acquisition tools as much as low-cost transaction tools will gain an edge.

• **Rural Markets:** Large number of people does not have access to banking facilities due to scattered and fragmented locations. Significant proportion of the same lies in rural areas where private banks have little incentive to invest. As per Census 2011 about 58.7 per cent households in India avail banking facilities. The proportion is less than 50 per cent in case of States like Bihar, Chhattisgarh, Odisha, West Bengal & North Eastern states like Manipur & Nagaland, Assam & Meghalaya. However, with increasing consumption levels of rural India & cut throat competition in urban markets, rural areas are gaining increasing importance. One example of the trend was the recent merger of Bank of Rajasthan with ICICI Bank Ltd which the latter resorted to in order to increase its reach in rural market and market share significantly. Dominant players in the industry have embarked on a series of strategic and tactical initiatives to sustain leadership. The major initiatives incorporate:

a) Focus on ensuring reliable service delivery through Investing on and implementing right technology.

b) Leveraging the branch networks and sales structure to mobilize low cost current and savings deposits.

c) Making aggressive forays in the retail advances segments of home and personal loans.

d) Implementing initiatives involving people, process and technology to reduce the fixed costs and the cost per transaction.

e) Focusing on fee based income to compensate for squeezed spread.

f) Innovating products to capture customer 'mind share' to begin with and later the wallet share.

g) Improving the asset quality as Basel II norms.

The banking environment of today is rapidly changing and the rules of yesterday no longer applicable. The corporate and the legal barriers that separate the various banking, investment and insurance sectors are less well defined and the cross-over are increasing. As a consequence the marketing function is also changing to better support the bank in this dynamic market environment. The key marketing challenge today is to support and advice on the focus positioning and marketing resources needed to deliver performance on the banking products and services. Marketing, as an investment advisor, is about defining 4Ps and implementing key strategic initiatives to Market segments, increasingly redefined, relevant micro-segments to survive and flourish in the highly competitive market.

In brief, public sector banks should follow these measures to make themselves up to date: Create a clear, simple, reality based customer-focused vision and are able to communicate its strategies forwardly to all branches. Reach, set aggressive targets, recognise and reward progress, while understanding accountability and commitment. To make public sector banks a world-class, five factors are important to consider and create: Vision, Values, Innovations, Leadership and Social Commitment.

Innovation in Banks in Terms of Services

Innovation has always been a sought after area for organizations in any country. Innovation is identified as the main driver for companies to prosper, grow and sustain a high profitability (e.g. Drucker, 1988; Christensen, 1997). Research (e.g. Ford, 1996; Kanter, 1988; Van de Ven, 1986; Wolfe, 1994) suggests that the term 'innovation' can be defined in terms of a new or innovative idea applied to initiating or improving a product, process, or service. Innovation has been a buzz word in banking right from beginning. Many researchers have contributed their best towards developing frameworks for innovation. Several authors have developed various frameworks, drivers, and steps on how to be innovative from an organization perspective.

The attempt towards innovation has been more so in India due to the country's emergence and growth, more or less, in all the sectors. The banking industry has been on an unprecedented growth trend during the past decade in the country¹. The sector today is fast paced and is constantly in the throes of change, with new regulations, new processes and new policies in place.

Technology has played a critical role in the past in shaping the way things are today, and will continue to do more than ever before.

From being just a support function, technology is now regarded largely as a strategic function aiding banking organizations. Most of the success achieved by this industry can be attributed to the ever changing innovative trends in technology. Service operations like Service Delivery Systems and Service Quality have dramatically become customer-centric

during the past decade. The importance of service delivery and its impact on improving satisfaction and retention of customers, improving sales and market share, and improving corporate image cannot be overstated.

Service Innovation Models

Several innovation models have been proposed by various authors under various titles. Innovation has been categorised into business model innovation, operations innovations, product innovation etc. Business model innovation refers to activities that considerably change the structure and/or financial model of a business. Every company has a business model, whether they articulate it or not. At its heart, a business model performs two important functions: value creation and value capture. Operations innovation defines improvements in the effectiveness and efficiency of fundamental business processes and practices, while product/services/markets innovation refers to the creation of new or fundamentally differentiated products, services or activities in markets.

For the purpose of this study, two models of innovation are considered. The first one is Bessant and Tidd's model of 4P's of Innovation and second one is, Pim den Hertog's Six-Dimensional Service Innovation Model (2010).

4Ps of Innovation

Bessant and Tidd (2007) identified 4Ps 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 equipment used to create products. Position innovation refers to contextual shifts with regard to the way products/services are introduced. Finally, paradigm innovation refers to changes 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 behaviors as well as motivate new practices or routines.

Satisfied customer is the best guarantee for stability of the organisation in the long run. Banks can satisfy their customers only by providing customised, 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. Major services provided by the Indian banks that are of international standards are Any time banking, Anywhere banking, Global ATM and Credit Cards, Internet banking facility etc.

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; personnel, organisation, culture. The sixth dimension is technological, which is a new service delivery system.

Application of Innovation Models

The two models of innovation were applied on innovative strategies of the selected banks in India. The new innovative ideas of these banks in terms of services offered are mentioned below. For the purpose of study, recent and innovative services are only considered.

A. State Bank of India

State bank of India, the largest public sector bank in India, offers the following innovative services.

a. SMS Unhappy: This innovative idea was of SBI wherein any customer who wants to lodge a complaint sends the message "Unhappy" to a specified number. The Happy Room then calls the customer and records the details of the complaint. The complaint is then forwarded and settled. Other banks in India have also started imitating this service.

b. Crorepati Only Branch: SBI has launched first of its kind branch for High Networth Individuals (HNI) where it takes minimum Rs 1 crore to open an account, and that too on invitation only. This branch offers specialised banking facilities like relationship managers, 24/7 lockers, extended banking hours, doorstep pick-up and drop facilities, in addition to pampering customers five-star amenities at the branch. According to SBI, an attractive feature of the branch is 24 hour open lockers. The bank also is providing special dressing rooms for customers to cater to the needs of late night function goers segment.

c. One Rupee Bank: In its urban financial inclusion initiative, SBI has started a new innovation through 'One rupee bank'. A customer can open an account with just one rupee through the bank's kiosks. This is a part of SBI's service through kiosks, an initiative to provide banking services to under-banked sections of society.

d. Other innovative strategies: Other innovative strategies of SBI also include, Online Education, Online Home, Online SME, Online Demat, Online Car Loans, USA Patriot Act Certification, SBI Loan for Pensioners, e-Invest (IPO investments. SBI Yuva Card (18-30 years), CAG (Corporate Accounts Group), Cyber Plus and Swarojgar Credit Card etc.

B. ICICI Bank

ICICI Bank, the pioneer of Private Sector banking in the country, has lot of innovative feathers in its cap. Some of its recently launched innovative services namely, Online Account Opening, Money Manager, Gold Online, Mutual Funds Online, Forex Online, Life Insurance Online, Shop on iMobile, Mobile Money Transfer (IMPS), Investments at ATM, Payments and Transfers at ATM, Compliments and Complaints and TV Banking.

C. YES Bank

YES Bank, one of the leading Private sector banks in the country undertaken some of the innovative initiatives which includes

a. Outsourcing: Outsourcing is the major innovative strategies of YES Bank. The bank is engaged in outsourcing of technologies, ATMs and even branch buildings.

b. Knowledge Banking: Apart of providing common banking solutions, the bank executives also act as consultants delivering business solutions.

c. Microfinance Direct: YES Bank is the earliest private sector bank to start offering micro-loans directly to poor customers.

d. Futuristic Branch: A chip embedded in the debit cards of top customers alerts staff when one walks in. An executive meets

him and greets him by name. This technology is on trial in the South Extension branch in Delhi.

e. Double Security: Besides their regular password, a second code is also generated just in time, and delivered to the customer's mobile.

f. Honey Farming: The bank has extended small loans of about Rs 25,000 each to over 2,000 bee farmers. The farmers provide their stocks of honey as collateral.

g. YES- Professional Entrepreneurship Programme (YPEP): The bank tapped the B-school alumni network to hire top-notch graduates unhappy with the jobs they had chosen. That's now become a campus strategy.

h. Responsible Banking: A key differentiator for the bank, the programmes aim is to develop innovative business solutions for social and environmental problems.

i. Money Monitor: Savings account customers get an online personal finance and wealth management software.

j. YES Assist: An innovative service operation to provide Concierge Services, Medical Assistance, Home Assistance, Automobile Assistance and Travel Assistance YES Bank's Direct Banking strategy focuses on leveraging of technology to bring about a paradigm shift in the way Banking services are provided to the customers in India. YES Bank has adopted a complementary "Bricks & Clicks" model and developed a Unique Direct Banking proposition to reach out to its customers with superior product delivery and internationally benchmarked service proposition.

D. Bank of Baroda

Products Bank of Baroda provides various banking products and services to its customers. These include Retail Banking, Rural/Agri. Banking, Wholesale Banking, SME Banking, Wealth Management, Demat Product Enquiry, Internet Banking, NRI Remittances, Baroda e-Trading, and ATM / Debit Cards.

E. Housing Development Finance Corporation Bank

HDFC BANK also acquired the Japanese technique for smooth running of work and effective work place organisation. Five 'S' Part of Kaizen is the technique which is used in the bank for easy and systematic work place and eliminating unnecessary things from the work place. The five S stands for S-1 SORT, S-2 SYSTEMATIZE; S-3 SPIC-N-SPAN; S-4 STANDARDIZE; and S-5 SUSTAIN. The bank also offers Premium Banking and Private banking services for the benefit of customers. HDFC BANK offers cutting edge investment and merchant banking services to a wide range of corporate of different sizes across sectors. The bank has excellent relationships with domestic and international banks, financial institutions, mutual funds, insurance companies, PE funds, VC funds, sovereign funds, multilateral development agencies etc, which enable them to arrange diverse debt and equity funding requirements of corporate in a cost-effective and timely manner.

HDFC Bank was the first bank in India to launch an International Debit Card in association with VISA (VISA Electron) and issues the MasterCard Maestro debit card as well. The products offered by the Investment Banking Division include Project appraisal, structured finance, loan syndication and debt capital markets; Equity Placement; M&A and Corporate Advisory Services; and Capital Market Advisory Services. HDFC Bank provides correspondent bank services to Co-operative Banks, Private Banks, Foreign Banks & RRB's. Banks can leverage HDFC bank's branch network, technology and product capability. The bank has a wide range of products engineered to suit the needs of the banking sector this is backed

up by a dedicated Relationship Management Team and dedicated servicing department.

F. Punjab National Bank

The innovative idea adopted by PNB is well accepted by the bank customer from opening of accounts to providing of value additive services. A lot of innovation took place in offering value added services. The new facility allows PNB customers to find out their savings account balance by giving the bank a missed call. The PNB Krishi Card Scheme is the presently the best product of its kind, available in the market under which farmers can withdraw cash for meeting short term production needs as well as domestic requirements. No bills/receipt is asked for financing upto Rs. 5 lacs.

Punjab National Bank (PNB) launched two new products, the PNB World Travel Card and the PNB Platinum Debit Card, in association with MasterCard to meet customer expectations to celebrate the bank crossing a major milestone of enrolling more than 10 Million Debit Card holders.

PNB Global is a truly international Credit Card which is welcomed at over 29 million merchant establishments & 1 million Visa ATMs worldwide. PNB offers Internet Banking, Mobile Banking and Phone Banking. The unique Money Transfer Service Schemes includes Xpress Money, Money Gram, Xoom.com, Ezremit and Western Union.

G. Bank of India

Bank of India is also the leading pioneer in the field of innovative banking. The BOI Cash management services specifically for Corporate Customers, which offers fast track cheque collections, speedier release of funds and profitable funds management, at a reasonable cost. The Bank was first to introduce 'Indian Green Card' for the farmers in the banking industry way back in 1980s. The concept has been adopted in all the Banks, thereafter with further modifications. The bank offers a large number of products with value additions such as Kisan Suvidha Card, Kisan Gold Card and Kisan Samadhan Card etc.

F. ING Vyas Bank

The bank is in the forefront in providing innovative services. The bank offers 'Easy Banking solutions' in the form of ING-Mobile Banking service, ING-SMS Banking service, ING-Phone Banking service, IMPS – Instant fund transfers on Internet and so on.

ING-Private Client Group brings wealth management solutions to High Net worth individuals and entities. This includes individuals, families, small businesses, large corporations and institutions. The bank's approach is based on mature insights, total transparency and a comprehensive range of products and services on a non-discretionary platform.

Wholesale banking is a reflection of ING's ability to provide its corporate clients in India a full range of commercial, transactional and electronic banking products. The bank offers a wide array of client-focused corporate banking services, including working capital finance, trade and transactional services, foreign exchange, investment management and cash management.

Analysis of Service Innovation in Banks

The service innovation of the above Eight banks have been analysed and various services offered by these banks were tried to fit into the 4P's Innovation Model and Six Dimensional Service Innovation model. The results of the analysis are presented in the following Tables 2 and 3 respectively which are self explanatory.

Conclusion

It is observed that technology has been playing a crucial role in the tremendous improvement of banking services and operations. Important events in the evolution of new age payment systems in India which includes arrival of card-based payments, debit card, credit card - late 1980's and early 1990's; introduction of Electronic Clearing Service (ECS) in late 1990's; Electronic Funds Transfer/ Special EFT (EFT/SEFT) in the early 2000's; Real Time Gross Settlement (RTGS) in March 2004; NEFT (National Electronic Funds Transfer) as a replacement for EFT/SEFT in 2005/06; Plan for implementation of cheque truncation system as a pilot programme in New Delhi in 2007 and further implementation in 2013; migration from cash and cheque based payment system; it has become a necessity to electronic fund transfer system and many more.

In recent time, we have witnessed that the world economy is passing through some intricate circumstances as bankruptcy of banking & financial institutions, debt crisis in major economies of the world and euro zone crisis. The scenario has become very uncertain causing recession in major economies like US and Europe. This poses some serious questions about the survival, growth and maintenance of sustainable development.

However, amidst all this turmoil India's Banking Industry has been amongst the few to maintain resilience. The tempo of development for the Indian banking industry has been remarkable over the past decade. It is evident from the higher pace of credit expansion, expanding profitability and productivity similar to banks in developed markets, lower incidence of non-performing assets and focus on financial inclusion have contributed to making Indian banking vibrant and strong. Indian banks have begun to revise their growth approach and re-evaluate the prospects on hand to keep the economy rolling.

Indian banking industry has moved way ahead both in terms of offering value added services and delivering quality service. It was thought that the world financial crisis would impact the Indian banking sector in a serious manner. But because of the strong foundation of Indian banking system with the 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. Banks appear to be on the path of achieving sustainability and a long-term survival because of innovation.

Banks have changed in their operations and moved towards universal banking along with the increased usage of technology and technology-based services offering alternate channels such as smart cards, ATMs, usage of the internet, mobile and social banking. Banks have started deploying core banking, human resource management (HRM) and enterprise risk (ERP) management and process re-engineering etc to improve on their performance and productivity. Majority of banks are insisting on cashless and paperless payment modes. According to a KPMG study (Times of India, 2013) a research analyst says, as of FY2012, non-cash payments constituted 91 per cent in value terms as compared to 88 per cent in FY in 2010 and 48 per cent in terms of value from 35 per cent in FY 2010.

As per the above discussion, it could be that the biggest challenge for banking industry is to serve the mass market of India. Companies have shifted their focus from product to customer. The better we understand our customers, the more successful we will be in meeting their needs. Greater customer-

orientation is the only way to retain customer loyalty and stay ahead of competition. In a market-driven strategy of development, consumer preference is paramount. Gone are the days when customers used to come to the doors of the banks and now banks are required to chase the customers. Thus, only banks that are customer-centric and extremely focused on the needs of their clients will succeed and there is need to change the mindset of banks at all levels on this issue.

Public sector banks in particular need to bring about total customer-orientation not only in their products/services but their policies and strategies should also be customer-focused. In fact, they must realise that customer is the only profit center and all others are overheads. Identification of profitable customers, understanding their needs and preferences, improving the delivery systems and reducing the transaction costs for them should become important strategic issues for banks, if they want to survive in the fiercely competitive environment. Enhancing the customer base, cross selling of products/services and strengthening the customer relationship management will be the most important aspect.

In order to mitigate above mentioned challenges Indian banks must cut their cost of their services. Another aspect to encounter the challenges is product differentiation. Apart from traditional banking services, Indian banks must adopt some product innovation so that they can compete in gamut of competition. Technology up gradation is an inevitable aspect to face challenges.

Finally, it is observed that banks in India are moving towards sustainability through social banking and innovative service operations and offerings. The sample considered here for analysis has proved this point very clearly. The trend is evident in both public sector as well as private sector banks. It is found that both types of banks have embraced service innovation as a part of their future banking strategy and are moving continuously towards customer-centric and service-centric banks. It is also found that the innovation is not limited only to product or process innovations but also to business model innovation, operations innovation, markets innovation, and more importantly, paradigmatic innovations. These banks must create and sustain an environment that promotes creativity, leverages diversity, and facilitates multidimensional collaboration of resources and technologies in pursuit of desirable social and economic outcomes in future. The rate at which innovations are adopted by firms constitutes an important part of the process of technological change.

Given the new environment, banks can't remain unaffected by the changes round and challenges before them. Therefore banks need to restructure themselves. The following practices need to be adopted on urgent basis

- Greater professionalism.
- Greater emphasis on diversification and sources non interest income.
- Consultancy services.
- Equipping them to operate in the deregulated environment.
- Necessary changes in the legal stipulations.
- Cost management.
- Bench marking of service standards to improve productivity and Proficiency.
- A self- regulatory organisation to monitor the activities of banking

Table 2: 4P's of Innovation Model

	SBI	BOB	BOI	ING	PNB	HDFC	YES BANK	ICICI Bank
Product Innovation	One Rupee Bank	Baroda Utsav Deposit Scheme/ Baroda SME Gold Card/ PENSION AADHAAR CARD	E-commerce	Online Account Opening	PNB Xpress Money Remit Card	International Debit Card/ Treasury business	Honey Farming	Online Account Opening
Process Innovation	SMS Unhappy	Online complain SPGRS	SMS based Grievances Redressal	Online Mobile Money Transfer	PNB bio-metric cards/ Smart Card/ Miscall to know balance	Online Account Opening /Money Transfer	Responsible Banking/ Sustainable Investment Banking division	Investments in ATM
Position Innovation	Expansion abroad	"Project-Navnirmaan"	International travel card/ Star e remit	IMPS	Expansion abroad	IMPS	Professional Entrepreneurship Programme	IMPS
Paradigm Innovation	Mobile Banking	Customer Education / service delivery, service quality and brand	Mobile Banking	Mobile Banking	Doorstep Banking Services/ Mobile Banking	Five 'S' Part of Kaizen	Bricks and Clicks Model	Customer Friendly

Table 3: Six Dimensional Service Innovation Model

	SBI	BOB	BOI	ING	PNB	HDFC	YES BANK	ICICI Bank
Service Concept or Service Offering	SMS Unhappy	Responsible Banking	Relationship Beyond Banking.	Online Mobile Money Transfer	Single Window Service	Relationship Banking/ Straight from the heart	Knowledge banking	Visa Money Transfer
New Customer Interaction	Creopati Branch	4 in 1 AC/SARATHEE, to promote financial inclusion/ Mobile Banking vans	STAR ABHILASHA CARD	ING Fortuna(3-in-1 account)	Financial Inclusion Initiatives/ 2 in 1 AC	Business Ki Baten	YES First for Women/ Bricks & Clicks	Financial Inclusion Initiatives/ 3 in 1 AC
New Value System	Link with Kirana Shops	Baroda e- Shoppe/ Central Pension Processing Centre (CPPC)	Credit Counseling Service	ING FD+/ Travel Insurance/ Forex Travel card	Online Banking	Japanese technique	Money Monitor/ Sustainable Investment Banking division	Online Banking
New Revenue Model	One Rupee Banking,	Wealth management /Wholesale Banking	Trade finance/STAR CASH MANAGEMENT SERVICES	Wealth management/ Wholesale Banking	Merchant banking/ Insurance	Wealth management / Investment Banking	Micro finance Direct	Money Manager/ Power Transfer
New Delivery System	Online Account Opening	Online Account Opening /Money Transfer/ Mobile Banking vans	Online Account Opening /Money Transfer	Online Account/ Insurance Opening/	Doorstep Banking Services/ Mobile Banking	Online Account Opening /Money Transfer	Double Security	Online Account/ Insurance Opening
New Technology	Banking Anywhere/ Cutting-edge technology	Net Banking	Banking Through Mobile/ TV Banking	Easy banking	Smart Invest/ Online banking	Net Banking	Technology Edge and Outsourcing	TV Banking/ b2 digital banking

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