The Online Indian Banking Sector & the Challenges and Opportunities of Implementing Total Quality Management System to Improving Service Quality of Online Banking System

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ABSTRACT

The Economic reforms initiated by the Government of India about two decades ago have changed the landscape of several sectors of the Indian Economy. After the demonetisation, positive influence on online banking sectors. On the positive side, there is likely to rest of spending patterns as this move represents indirectly a significant push towards cashless economy. Business in the fin-tech sectors, like payments gateways, Cards, Mobile wallets, online retail, net and payments banks, e-market place. The Indian banking sectors are not exception about such immediate changes trough the technology. The Banking sector is going through major changes as a consequence of economic reforms. The role of banking industry is very important as one of the leading and mostly essential service sector. India is the second largest economy in the world having more than 120 Crore population. Today in India, the service sectors are contributing half of the Indian GDP and the Banking is most popular service sector in India. As well as world, economy is impacted with use of technology. Therefore, that Indian Banking sectors are also using now a day Core-Banking system. The significant role of banking industry is essential to speed up the social economic development. Banks plays an important role in the economic development of developing countries. Economic development involves investment in various sectors of the economy. All of the economic reform we have focus to implementation of TQM to performance improvement of software services. The economic reform has also generated new and powerful customers (huge Indian middle class) and new mix of players (public sector units, private banks, and foreign banks). Now by new programme started by our newly PM, low-income account open system. The new more than 8 core new customers have been increased. The emerging competition has generated new expectations from the existing and the new customers. There is an urgent need to introduce new system or improving the total quality management in existing service or technology. Existing service need to be delivered in an innovative and cost-effective way by taking full advantage of emerging technologies. The biggest opportunity for the Indian e-banking system today is the Indian consumer for providing the different services like e-banking, core banking, mobile banking, ATM services, etc. Demographic shifts in terms of income levels and cultural shifts in terms of lifestyle aspirations are changing the profile of the Indian consumer. The Indian consumer now seeks to fulfil his lifestyle aspirations at a younger age.
with an optimal combination of equity and debt to finance consumption and asset creation. This is leading to a growing demand for competitive, sophisticated retail e-banking services. This paper explains the changing banking scenario, the impact of economic reforms and analyses the challenges and opportunities of national and commercial banks.

**Keywords:** Customer Retention, Demonetisation, E-Banking, emerging technology, GDP, Information Technology, TQM.

I. INTRODUCTION

Indian economy is one of the most growing economies of the world. The Indian banking organisations has scalable potential to spring of new achievements. Indian economy is one of the highest growth rate achieving from last decade. The previous decade the customers embracing with debit card, credit card, internet banking, electronic and mobile banking. India's banking sector is currently valued at Rs. 200 trillion (US$ 1.46 trillion) at financial year 2016. This potential of Indian economy become the fifth largest banking industry of the world by 2020, the third world largest by 2025, by world economic forum report. Now a day the banking technology are enriched with the masses of advance technology to facilitate by information technology. The banking transactions are carrying out through the i-banking, e-banking, online and mobile-banking through the electronic devices with the digital world.[1]

The banking organisation are the financial institutions, which are providing the all banking and other financial services to customers. The Banking organisations are the economical & financial services providing institutions. A banking system also referred as a system, which offers various services like cash management, transaction, fund related services, Loan categorisation and portfolios.[2][3]

The Banks are playing the key role for the financial system in India. The Banking organisation are offering the various service, facilities and opportunities to the users. All the banks managing the safeguards of the money, funding and valuables. The banking system a variety of models to provide cooperation and integration related finance or economic enviourment.[4] The banking functions are explaining the expectation and its importance:

- To provide the assurance related the savings.
- To controlling the activity supply of money.
- To encouraging the consumer confidence for relating services.
- To avoiding the centralization of financial powers to few individuals.
- To create rule and regulation to follow equal norms, terms and conditions for all.
- To facilitate the services to customer related financial and economy.
- To improve the service quality of e-banking system
- To focus on Total quality management system in software service issue.

II. OBJECTIVE

The objective this research paper is to identifying the modern banking scenario, to analysing the impact of privatization, liberalization, socialisation & globalization. The objective also to study the challenges and opportunities of national and commercial banks in upgrading advance-banking system. To identify the software service quality in core banking system and to understanding the total quality management system significance of
e-banking services in India. The current banking system is completely depends on digitalization. The current challenges are to implement the quality of services of software services in cashless economy. Software services are playing the key roll to implements the cash less economy.[5]

III. METHODOLOGY

This paper is also focusing to moderate a secondary data on Indian Banking System. To identify with help of the annual banking reports, gadgets, books, research journals & papers and periodicals have been consulted. The several reports on the banking advancement area have been concerned. To identify the challenges of software service implementation to improving the quality in banking sectors.

A. The Indian Banking Industry

After the 1947, India have face a lot of challenges to introduce a New India. Government of India has taken the important decision about of Indian Banking System restructure. At the 1955, “The Imperial Bank of India” nationalized and reintroduce as “State Bank of India”, for the role of the principal agent of Reserve Bank of India and handling to all banking transactions to whole country. It established under the State Bank of India Act, 1955. Seven subsidiary bank has nationalized at 1960 under the State Bank of India. The Govt. of India took a historical decision at 19 July 1969, to nationalisation of 14 major Indian commercial banks. At 1980, more six banks nationalized then nationalised 20 banks. Another seven banks also nationalized with 200 crores INR Estate.[6] At 1980 total amount of Indian banking estate approximately 80% running under government’s ownership. By the Narsimhan Committee, the Indian Banking Regulation Act at 1993 amended the way to open the opportunity for the private banking sector.[7]

B. Phases of Evolution of Indian Banking Industry

The reformation of Indian economy in new decades play a vital role to development with new technology. To maintaining the current banking structure for comparing with the world economy its necessary to upgrading the current infrastructure.

- The entire evolution classified into five distinct phases.[8]
  - Phase I: Pre-Nationalisation Phase (1955)
  - Phase II: Nationalisation and Consolidation Era (1955-1990)
  - Phase III: The Banking Sector Restructure & The Partial Liberalisation (1990-2004)
  - Phase IV: Period of Increased Liberalisation (2004 -14)
  - Phase V: Demonetisation (onwards)
- Starting of 21st century banking sectors are going to involve Core Banking sectors
- Till 2010, all banking sectors are fully online system based service.
- Till 2015. All banks have using e-banking service, online banking service, internet bank ink like ATM, Credit cards etc and mobile banking service.[9]
- Phase V- The government of India focused on Cash-less economy. To implementation of cashless economy government take a hard decision of demonetisation at November 2016.
- To implementation of this decision government focused on black money control, cash less economy.
IV. ORGANISATIONAL STRUCTURE

The current structure of the Indian banking organisation has been analysing industrialised status business and profitable services. The entire banking system comprises the scheduled and non-scheduled banks. The Banking system requires the financially excluded population on unorganised entities to resource enrichment.[10] The core banking service online attaches all branches attached with the main branch of country. Previously banks have their own database but now all database has been prepared online based. So that is record is saved in core banking database. That database has shared by core banking service to all branches. This is the centralisation of banking sector.[11]

A. Scheduled Banks

The scheduled bank, A kind of bank which are running under the RBI Act, 1934. The schedule banks have to fulfil legal terms & conditions. The schedule banks capital and empire turnover at least 0.5 million.[12] These Scheduled banks classified later like commercial and cooperative. The basic difference between both scheduled banks like commercial and cooperative banks on the holding pattern.

i. Scheduled Commercial Banks (SCBs)

The Scheduled commercial banks (SCBs) identify a high proportion of the business and marketing. There are 10 Nationalised banks of SBI and 7 associates banks, which are controlling together 70% banking businesses in India. The Private sector banks are also incorporated accordingly the revised guideline by RBI related private sector banks in 1993,[13] again revised RBI act at march 2009, related to 15 old and 7 new generation banks. At June 2009, the 32 foreign banks operate with 293 branches in India.[14]
The Regional Rural Banks (RRBs) sets at in September 1975 to develop rural economy through the service providing in those areas by combining the cooperative (local orientation the sound resource base).\textsuperscript{15}

Structure of the Organised Banking Industry

\textbf{ii. Scheduled Cooperative Banks}

The Scheduled cooperative banks can spread classified on largescale into urban & rural credit cooperative institutions. The Rural cooperative banks helpful for long term facility providing in short period. The Credit cooperatives schedule banks specified on three-tier structure levels like (Primary, District and State).

\textbf{B. Non-Scheduled Banks}

The Non-scheduled banks also play the key role in the Indian banking system like Local Area Banks(LAB). At March, 2009 only 4 LABs working in India. These LAB are the banks which are afflict ing under the government of India scheme in 1996, to the establishing the new private banks for local body. The financial aid for LAB in the mobilising of funds to rural & semi urban districts.\textsuperscript{16}

\textbf{V. BUSINESS SEGMENTATION}

The whole banking business operations are distributed into four divisions like retail banking, treasury operations, wholesale banking and other banking activities. The Banks have dedicated & united business units and branches for all kind of Banking in India.\textsuperscript{17}
A. Retail Banking

The Retail banking services are introducing on various criteria of service orientation, granularity activity, product services and base level individuals exposures. In importance of retail banking services to implementation of retail exposures or low-income business or small businesses and its related services like cash credit, debit, transition, overdrafts etc. this type of banking exposures is limited to the extension of small business as well as 0.2% of limited Rs. 50 million of the total retail portfolio.[18]

The important services of the retail portfolio is loans services like housing, personal, goods, motor vehicle and property loans. The Retail banking segmentation is a well-diversified business segmented service. All most corporate and commercial banks contribution in society by retail banking activities. The retail banking service providing banks under the Reserve Bank of India like ICICI Bank, SBI, PNB, UCO, IDBI, BOB, BOI, HDFC, ALAHABAD Bank, Canara Bank etc.[19]

These private banks are the key players to providing the retail banking service, which has definitive distributing strategies to boosting its retail portfolio. These banks are providing to focus on distributed services in public sectors, which is vital transaction on low business intensive retail services. Few Foreign banks are also providing the retail portfolio services. The Good things of Indian banking system by privatisation of banking sectors to providing the different kind of service. The retail banking services are highly competition sector in the near future. The retail banking system have facing high challenges in current economic situation by using advance technology and software services implementing in rural area. A huge population are living in rural area where lack of resources, basic facilities like internet, information communication technology, and transportation.

B. Wholesale Banking

The Wholesale banking system are including the high exposing trading & business exposures to corporates. The wholesale banking is a most corporatizing for mid & large corporates according to exposing the current digital banking structure in India. The key solutions for the significant part of exposing coming from the corporates and business sectors. The Various categorisation of modern banking like accounting & financing for projects, leasing, sponsoring, working capital and term finance by the wholesale banking transactions. The different banking services like Syndication and merchant banking are also provided by the wholesale banking to the various products variety and offered services.[20]

A large number of private banking players among Indian banks are also very active in this segmentation. Among the players with the largest footprint in the wholesale banking space are SBI, ICICI Bank, IDBI Bank, Canara Bank...
Bank, Bank of India, Punjab National Bank and Central Bank of India. Bank of Baroda has also been exhibiting quite robust results from its wholesale banking operations.[21]

C. Treasury Operations

Treasury operations include investments in debt market (sovereign and corporate), equity market, mutual funds, derivatives, and trading and forex operations. These functions can be proprietary activities, or can be undertaken on customer’s account. Treasury operations are important for managing the funding of the bank. Apart from core banking activities, which comprises primarily of lending, deposit taking functions and services, treasury income is a significant component of the earnings of banks.[22]

D. Other Banking Businesses

This is considered as a residual category, which includes all those businesses of banks that do not fall under any of the previously mentioned categories. This category includes para banking activities like hire purchase activities, leasing business, merchant banking, factoring activities etc.

VI. PRODUCTS OF BANKING INDUSTRY

The products of the banking industry broadly include deposit products, credit products and customized banking services. Most banks offer the same kind of products with minor variations. The basic differentiation is attained through quality of service and the delivery channels that are adopted. Apart from the generic products like deposits (demand deposits – current, savings and term deposits), loans and advances (short term and long term loans) and services, there have been innovations in terms and products such as the flexible term deposit, convertible savings deposit (wherein idle cash in savings account can be transferred to a fixed deposit), etc. Innovations have been increasingly directed towards the delivery channels used, with the focus shifting towards ATM transactions, phone and internet banking. Product differentiating services have been attached to most products, such as debit/ATM cards, credit cards, nomination and Demat services.[23]

Products and Services

Other banking products include fee-based services that provide non-interest income to the banks. Corporate fee-based services offered by banks include treasury products; cash management services; letter of credit and bank guarantee; bill discounting; factoring and forfeiting services; foreign exchange services; merchant banking;
leasing; credit rating; underwriting and custodial services. Retail fee-based services include remittances and payment facilities, wealth management, trading facilities and other value added services.\[^{24}\]

VII. CHALLENGES AND OPPORTUNITIES

The Indian banking sector continues to face some structural challenges. The new international capital norms require a high level of sophistication in risk management, information systems, and technology, which would pose a challenge for many participants in the Indian banking sector. The deep and often painful process of restructuring in the Indian economy and Indian industry has resulted in asset total quality management issues for the banking sector; while significant progress is being made in this area, a great deal of work towards resolution of these legacy issues still needs to be done. The Indian banking sector is thus at an exciting point in its evolution. The opportunities are immense: to enter new businesses and new markets, to develop new ways of working, to improve efficiency quality of Services, and to deliver higher levels of customer service.\[^{25}\]

The Indian banking sector is faced with multiple and concurrent challenges such as total quality management system on software services, increased competition, rising customer expectations, and diminishing customer loyalty. The banking industry is also 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 and at the other end of the spectrum, the customers are becoming familiar with ATMs, e-banking, and cashless economy. This shows the immense potential for market expansion. In this complex and fast changing environment, the only sustainable competitive advantage is to give the customer an optimum blend of technology and traditional service.

As banks develop their strategies for giving customers access to their accounts through various advanced services like e banking, mobile banking and net banking, they should also regard this emerging platform as a potential catalyst for generating operational efficiencies and as a vehicle for new revenue sources. Banking industry’s opportunities includes

- Total quality management on software services
- Software based structure of banking sector
- Usability of software in banking sectors
- Quality of software services
- IT challenges
- A growing economy
- Banking deregulation
- Increased client borrowing
- An increase in the number of banks
- An increase in the money supply
- Low government-set credit rates and

Developing countries like India, has 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 and products provided by different banks. Software services implementation play a key role in banking sector. Software services in core banking services are completely depends on internet facility. We must focus to modify the current structure of internet and its facility. It’s a general problems in the banking system to accessibility failed of server.

Since, foreign banks are playing in Indian market, the number of services of offered has increased and banks have laid emphasis on meeting the customer expectations. Quality of service is also faster than Indian Banks. India's banking sector has made rapid strides in reforming and aligning itself to the new competitive business environment. The major challenges faced by banks today are as to how to cope with competitive forces and strengthen their balance sheet.

A. Indian Consumer
The biggest opportunity for the Indian banking system today is the Indian consumer. Demographic shifts in terms of income levels and cultural shifts in terms of lifestyle aspirations are changing the profile of the Indian consumer. This is leading to a growing demand for competitive, sophisticated retail banking services. The consumer represents a market for a wide range of products and services – he needs a mortgage to finance his house; an auto loan for his car; a credit card for on-going purchases; a bank account; a long-term investment plan to finance his child’s higher education; a pension plan for his retirement; a life insurance policy – the possibilities are endless.

B. Revolution of Information Technology
Technology is the key to servicing all customer segments – offering convenience to the retail customer and operating efficiencies to corporate and government clients. The increasing sophistication, flexibility, and complexity of product and servicing offerings makes the effective use of technology critical for managing the risks associated with the business. 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 returns to shareholders. Early adopters of technology acquire significant competitive advantage. Managing technology is, therefore, a key challenge for the Indian banking sector. Wide disparities exist between various banks as far as technology capabilities are concerned; the sector as a whole needs to make significant progress on this front.

Banks may have to go for mobile banking services for a cluster of villages. Alternatively, technological institutions have to come out with low-cost, self-service solutions/ATMs. The government and the RBI should actively support such research efforts. Here, it is worthwhile to mention that the adaptability of the Indian rural population to high-tech devices is one of the fastest in the world. A wider dissemination of information on technologies and products to the Indian banking industry by the research institutions could benefit the banking institutions. This cross-pollination of ideas would mutually enrich the banking and the technology development processes. The Indian banks are subject to tremendous pressures to perform as otherwise their very survival would be at stake. The application of IT and e-banking is becoming the order of the day with the banking system heading towards virtual banking.

C. Industrial Development
The developments in Indian industry and government and the integration of India with the global markets also offer innumerable opportunities to the banking sector. Companies and governments are increasingly seeking
high-quality banking services to improve their own operating efficiency. Companies seek to offer better
customer service and maximize shareholder returns and governments seek to improve the quality of public
services. The internationalization of India offers banks the opportunity to service cross-border needs of Indian
companies and India-linked needs of multinationals.

D. Knowledge Society
Building knowledge-driven, learning organizations is important in the current scenario of rapidly evolving
operating environments. Knowledge and assimilation of new ideas and trends are essential to keep the
organization ahead on the curve. This is true for banking as it is for all other sectors. Banks must continuously
seek to be aware of cutting edge practices in banking internationally and institutionalize this learning across the
organization. This will prepare them for the future as Indian markets become more sophisticated and integrated
into the global financial markets. Another critical area for the Indian banking sector is people. The ability to
attract and retain talent is a key success factor for a people-oriented business like banking. Banks have to build
organizations that are process driven yet innovative, stable yet flexible, and responsive to change.\[^{30}\]

E. Intense Competition
The RBI and Government of India kept banking industry open for the participants of private sector banks and
foreign banks. The foreign banks were also permitted to set up shop on India either as branches or as
subsidiaries. Due to this lowered entry barriers many new players have entered the market such as private banks,
foreign banks, nonbanking finance companies, etc. The foreign banks and new private sector banks have
spearhead the hi-tech revolution. For survival and growth in highly competitive environment banks have to
follow the prompt and efficient customer service, which calls for appropriate customer centric policies and
customer friendly procedures.

F. Employees’ Retention
The banking industry has transformed rapidly in the last ten years, shifting from transactional and customer
service-oriented to an increasingly aggressive environment, where competition for revenue is on top priority.
Long-time banking employees are becoming disenchanted with the industry and are often resistant to perform up
to new expectations. The diminishing employee morale results in decreased revenue. Due to the intrinsically
close ties between staff and clients, losing those employees completely can mean the loss of valuable customer
relationships. There tail-banking industry is concerned about employee retention from all levels: from tellers to
executives to customer service representatives because competition is always moving in to hire them away.

G. Financial inclusion
Financial inclusion has become a necessity in today’s business environment. Whatever is produced by business
houses that have to be under the check from various perspectives like environmental concerns, corporate
governance, social and ethical issues. Apart from it to bridge the gap between rich and poor, the poor people of
the country should be given proper attention to improve their economic condition. In India, RBI has initiated
several measures to achieve greater financial inclusion, such as facilitating no-frills accounts and GCCs for small
deposits and credit.

H. Rural Market
Banking in India is generally fairly mature in terms of supply, product range and reach, even though reach in
rural India remains a challenge for the private sector and foreign banks. In terms of quality of assets and capital
adequacy, Indian banks are considered to have clean, strong and transparent balance sheets relative to other banks in comparable economies in its region. Consequently, we have seen some examples of inorganic growth strategy adopted by some nationalized and private sector banks to face upcoming challenges in banking industry of India. For example, recently ICICI Bank Ltd. merged the Bank of Rajasthan Ltd. in order to increase its reach in rural market and market share significantly. State Bank of India (SBI), the largest public sector bank in India has also adopted the same strategy to retain its position. It is in the process of acquiring its associates. Recently, SBI has merged State Bank of Indore in 2010.

I. High Transaction Costs
A major concern before the banking industry is the high transaction cost of carrying non-performing assets in their books. The growth led to strains in the operational efficiency of banks and the accumulation of non-performing assets (NPA’s) in their loan portfolios.

J. Social and Ethical Aspects
There are some banks, which proactively undertake the responsibility to bear the social and ethical aspects of banking. This is a challenge for commercial banks to consider these aspects in their working. Apart from profit maximization, commercial banks are supposed to support those organizations, which have some social concerns.

K. Timely Technological up gradation
Already electronic transfers, clearings, settlements have reduced translation times. To face competition it is necessary for banks to absorb the technology and upgrade their services.

L. Global banking
The impact of globalization becomes challenges for the domestic enterprises as they are bound to compete with global players. If we look at the Indian Banking Industry, then we find that there are 36 foreign banks operating in India, which becomes a major challenge for Nationalized and private sector banks.

VIII. CONCLUSION
The pre and post liberalization era has witnessed various environmental changes, which directly affects the previously mentioned phenomena. It is evident that post liberalization era has spread new colours of growth in India, but simultaneously it has also posed some challenges. This article discusses the various challenges and opportunities like High transaction costs, IT revolution, timely technological up-gradation, intense competition, privacy & safety, global banking, financial inclusion. Banks are striving to combat the competition. The competition from global banks and technological innovation has compelled the banks to rethink their policies and strategies. Different products provided by foreign banks to Indian customers have forced the Indian banks to diversity and upgrade themselves so as to compete and survive in the market.

The biggest challenge for banking industry is to serve the mass and huge market of India. Companies have become customer centric than product centric. The better we understand our customers, the more successful we will be in meeting their needs. 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. The level of consumer
awareness is significantly higher as compared to previous years. Now a day they need internet banking, mobile banking and ATM services.

REFERENCES
[12]. Jugale V.B, —Banking trends in India.
[16]. National Bank for Agriculture and Rural Development (NABARD), www.nabard.org
[17]. Kulkarni R V (2000), —Changing Face of Banking from Brick and Mortar Banking to E Banking
[18]. Levesque, T. and McDougall, G.H.G. —Determinants of Customer Satisfaction in Retail
[20]. National Housing Bank, www.nhb.org.in
[21]. Rajkumar S Adukia, An Overview of Banking Sector in India, www.caaa.in
[22]. Reserve Bank of India, www.rbi.org.in


