



# A TECHNOLOGICAL TRANSFORMATION IN BANKING SERVICES: A REVOLUTIONARY APPROACH

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**Abstract-**As we know Right from the Early Age to till one law is governing the market for every generation that is “Law of Demand & Supply”. It is a well-known fact that when cyber world is marching rapidly towards higher form of technological evolution, Cloud Computing has entered as backbone support to information and communication technology as a tool for better cost performance. It is a platform, which is highly governed by the law of “Demand & Supply”, whether it is Banking & Finance sector, Small and Medium enterprises, Education and Hospitals etc., all are in need of this technology to make their performance as cost effective as possible and ubiquitous in functionality. Here to talk about banking sector it can be said that-Banking industry in India is facing number of challenges like changing needs and perceptions of customers, new regulations from time to time and great advances in technologies, the pressure of meeting these challenges have compelled banks to change their old ways of doing business.

**Keyword:** Banking and Financial System (BFS), Cloud Computing, Information Communication Technology (ICT), Cloud computing, banking business model, Technology transformation etc.

## 1. Introduction

The banking industry is facing unprecedented changes. Control is now in the hands of the customer, rather than the bank. Customers are driving new business models. Their use of technology—in addition to changes in social and household dynamics is driving business transformation. Banks need to react to this new customer-driven environment with innovation in business models, operations and IT. For banks, the value propositions for cloud computing affects the entire business. Cloud technology offers a new model for delivering innovative client experiences, effective collaboration, improved speed to market and increased IT efficiency. Cloud computing can also play a significant role in a bank’s efforts to reinvent its business and operating models. In Technical terms, a cloud computing platform automatically

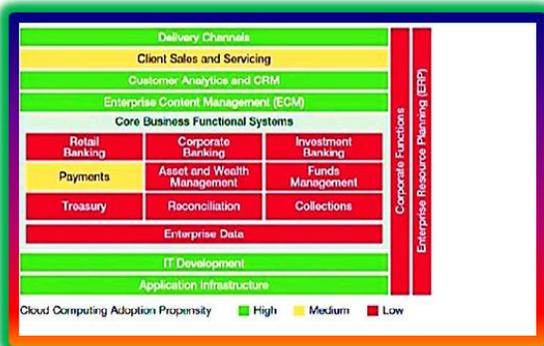
assembles, connects, configures and reconfigures virtualized technology resources to meet business goals. In business terms, it eliminates constraints around where physical IT resources are located or what specific technologies are employed, which makes it possible to deploy business services rapidly and at a lower cost. Cloud deployments are spreading and the technology is proving to be secure. Various organizations are adopting innovative ideas such as mobile apps or cloud apps to carry out their day to day business operations. So it can be said that Cloud computing has become the most emerging technology now a days, It increases the flexibility scalability over internet. Every field wants to do work with the help of cloud computing because it provides promising business idea to the fastest growing areas of the information technology. One of the fields that want to merge their entire business or work with the cloud computing is the banking field *i.e.* Banking Application. With increasing business complexity banks are seeking innovative business models and specialized technology to cater customers’ demands. Information technology has made it convenient for customers to do their banking from geographically diverse places which earlier remained untouched. Cloud computing can also offer benefits in many areas, such as Analytics(Integrating customer data across banking platforms to enable near real-time insights), Collaboration(Enabling employees across distributed branches to access trading and banking systems through a security-rich cloud infrastructure), Infrastructure compute(Allowing capacity to be allocated, expanded and reallocated efficiently gives banks flexibility and agility while resolving the issues of complexity and cost increases related to scaling up traditional network models to accommodate future growth), Infrastructure storage(Providing scalable storage solutions to ensure that the real-time demands of today’s trading and analytics processes are maintainable), Managed backup(Backing up a bank’s critical business data to ensure that in the event of a disaster a bank can bounce back rapidly and easily), security(Enforcing active security and endpoint management to ensure corporate governance and banking IT policies are maintained).

Therefore to achieve sustained high performance in the future, banks across the world needs to master two fundamental changes *i.e.:*(i) The transformation of their product

offerings, channels and customer service to reflect the demands of the “changing consumer”—connected, impatient, empowered, and demanding of services that meet their individual and social needs. (ii) The reshaping and reinvention of their core banking operations to enable a more competitive, customer-centric, efficient and sustainable business model. A failure to achieve either of these imperatives will expose banks to disintermediation by nimble, low-cost online and mobile providers of personal financial management and payments services—resulting in loss of relevance to customers and, therefore, their prominence in the financial services.

So the Cloud computing technology can provide banks competitive advantage in the market cost reduction, higher margins, simplified maintenance and management of application across the enterprise, greatly extended scalability, agility, high availability, automation, large data storages and reliable backup mechanism.

## 2.0 Financial Transformation



As we embarked into 2015, financial institutions and banking sector are possibly the most advanced in terms of technology adoption and can use cloud as a key differentiator. Financial transformation is a key to survival of banks in contemporary banking environment. The importance of financial transformation is widely recognized. Innovative ideas are manifest in diverse industries and in different forms. For example transformation in product development is one of the forms of transformation that has been used by banks. Right from the beginning stage of financial modernization transformations have been playing major roles in improving financial inclusion and improving the ways banking services are rendered to people. Financial transformation is one of the commonly used banking terminologies. According to John Finnerty, “Financial Transformation involves the design, the development, and the implementation of innovative financial instruments and processes, and the formulation of creative solutions to problems in finance. The various

transformations in banking and financial sector are ECS, RTGS, EFT, NEFT, ATM, Retail Banking, Debit & Credit cards, free advisory services, payments of utility bills, fund transfers, internet banking, telephone banking, mobile banking, selling insurance products, issue of free cheque books, travel cheques and many more value added services. So the advantages accruing from computerization or transformation of technologies are three-directional –i.e. *to the customer, to the bank and to the employee.*



Fig:-Mobile banking facility

## 2.1 To the customer:

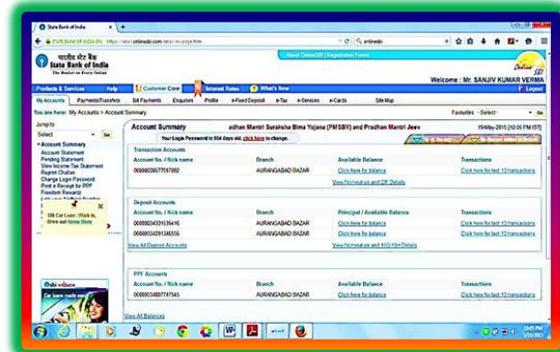


Fig-Internet Banking Facility

Banks are aware of customer's need for new services and plan to make them available, Information technology has increased the level of competition and forced them to integrate the new technologies in order to satisfy their customers such as,

- **Self-inquiry facility:** Facility for logging into specified self-inquiry terminals at the branch to inquire and view the transactions in the account.
- **Remote banking:** Remote terminals at the customer site connected to the respective branch through a modem,

enabling the customer to make inquiries regarding his accounts, on-line, without having to move from his office.

- **Anytime banking & anywhere banking:** Installation of ATMs which offers non-stop cash withdrawal, remittances and inquiry facilities.

## 2.2 To the bank:

The Intense competition among the banks has redefined the concept of the entire banking system. The banks are looking for new ways not only to attract but also to retain the customers and gain competitive advantage over their competitors. Customers in urban India no longer want to wait in long queues and spend hours in banking transactions. So by looking this change in customer attitude bank applied information technology and cloud computing to a wide range of back and front office tasks in addition to a great number of new products. The major advantages for the bank to implement these are:

- Availability of a wide range of inquiry facilities, assisting the bank in business development and follow-up.



Fig: NEFT/RTGS done in core banking

- Immediate replies to customer queries without reference to ledger-keeper as terminals are provided to Managers and Chief Managers
- Automatic and prompt carrying out of standing instructions on due date and generation of reports.
- Generation of various MIS reports and periodical returns on due dates.
- Fast and up-to-date information transfer enabling speedier decisions, by interconnecting computerized branches and controlling offices with real time data available by the help of cloud computing.

## 2.3 To the employees:

Information technology and cloud computing has increased their productivity through the followings:

- Accurate computing of cumbersome and time-consuming jobs such as balancing and interest calculations on due dates.

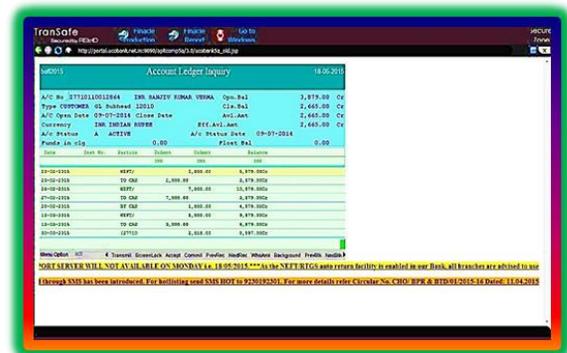


Fig:-Enquiry facility available at branch level

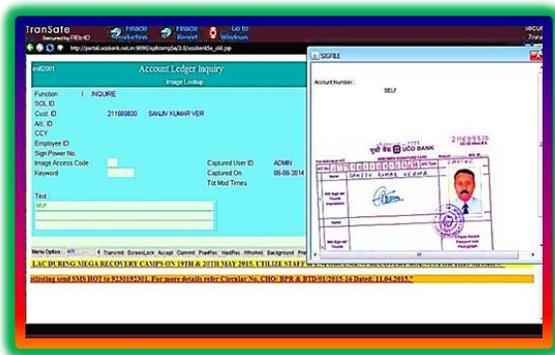
- Automatic printing of covering schedules, deposit receipts, pass book / pass sheet, freeing the staff from performing these time-consuming jobs, and enabling them to give more attention to the needs of the customer.
- Signature retrieval facility, assisting in verification of transactions, sitting at their own terminal.
- Avoidance of duplication of entries due to existence of single-point data entry.

## 3.0 Objective of the study

Computers are getting more sophisticated, they have given banks a high potential. The changes that new technologies have brought to banking are enormous in their impact on workman of banks. Advances in technology are allowing for delivery of banking products and services more conveniently and effectively than ever before - thus creating new bases of competition, this only happened due to easy availability of data with the help of cloud computing irrespective of time and place. Rapid access to critical information and the ability to act quickly and effectively will distinguish the successful banks of the future.

## 4.0 Challenges ahead for banking Sector

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 with confidentiality and maintaining security. Managing technology is therefore a key challenge for the

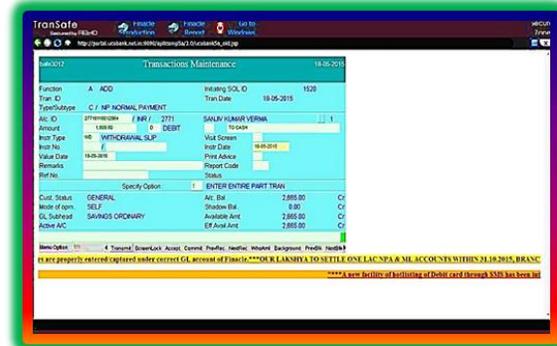


**Fig: Customer photo/Sign identification Verification with help of bank Private cloud data**

Indian banking sector. Developing countries like India, has a huge population who don't have access to banking services due to scattered and fragmented locations, So with the help the technology they can be brought together. The technological advancements can also bring close integration between the urban and rural population. Retention of customers is also going to be a major challenge, Banks need to emphasis on retaining customers and increasing market share. Even with ATM machines and Internet Banking, many consumers still prefer the personal touch of their neighborhood branch bank.

Technology has made it possible to deliver services throughout the branch bank network, providing instant updates to checking accounts and rapid movement of money for stock transfers. However, this dependency on the network has brought IT department's additional responsibilities and challenges in managing, maintaining and optimizing the performance of retail banking networks. Illustratively, ensuring that all bank products and services are available, at all times, and across the entire organization is essential for today's retails banks to generate revenues and remain competitive. There are some other Specific challenges which include ensuring of account transaction applications run efficiently between the branch offices and data centers. Banks in India

will now have to work towards a vision to have an enhanced retail delivery system.



**Fig:-Cash payment transaction made in Branches**

No doubt, the benefits of technology have brought a sea-change in the outlook of modern banking. Now the goal of banking is not just to satisfy but to engage with customers and enrich their experience and for the successful achievement of this goal. To achieve the goal in spite of doing many things bank also has to adopt hybrid cloud model which enables it to garner the benefits of cloud computing while also maintaining the security and confidentiality of their data. Banks need to adopt practical approach to security and data privacy in the cloud. Most banks segment data with different levels of sensitivity, from low level to ultra-secure, in the same way, Banks will need to implement their cloud to have similar and appropriate security.

## 5.0 Conclusion

India is one of the top ten economies in the world, where the banking sector has tremendous potential to grow, Global economic situation to more stringent regulatory controls, nimble new competitors and shifting Customer expectations. Bankers and others now face a dramatically different market reality. Banks must collaborate and technology must be part of that collaboration. However, Indian banking industry faced the numerous challenges such as increasing competition, pressure on spreads, and systemic changes to align with international standards have necessitated a re-evaluation of strategies and processes in order to remain competitive in this dynamic environment. 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. At the end, it can be rightly said that productivity and efficiency will be the watch words in the banking industry in the years ahead, Strategizing organi-



zational effectiveness and operational efficiency will govern the survival and growth of profits.

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