ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

Understanding the importance of ICT driven information sharing in banking industry in India

Dr. Kavita Joshi, Assistant Professor, Sinhgad Business School, Pune
drkavitajosh81@gmail.com
Dr. Jairaj Sasane, Assistant Professor, Sinhgad Business School, Pune
jairaj.sasane@gmail.com
Dr. Vidya Bhandwalkar, Assistant Professor, Dhole Patil College of Engineering, Pune.
vidyabhandwalkar@dpcoepune.edu.in

Abstract

The changes brought about by digitalization have completely changed the banking industry and the way people deal with and do business with financial institutions. This study focuses on the United States of America and looks at how bank processes changed before and after they went digital. At first, putting banking activities on computers was a big step towards using technology, freeing up workers from doing too much manual work and making things run more smoothly. But it also showed some problems, such as methods that are easy to mess up and problems with managing data. After that, banks went digital to fix these problems by using technology to improve customer service, make operations run more smoothly, and add new services. Key results show how important strong infrastructure, widespread campaigns to raise awareness, and a strong legal framework are for protecting consumer rights and making sure digital transactions are safe. The study also talks about how younger, tech-savvy generations are becoming more important and how proactive security steps can help fight fraud and security breaches. As it look to the future, the future of digital banking looks bright. Progress in artificial intelligence and machine learning is set to completely change how banks work, making them more efficient and better at making predictions. Overall, this study shows how digitalization has changed the banking industry and how important it is to keep coming up with new ideas and being careful to make sure that digital banking systems are safe and work well.

Keywords: *Digitalization, Banking Sector, Technology, Financial Transactions, Infrastructure, Security Measures, Customer Service, Artificial Intelligence, Machine Learning.*

INTRODUCTION

Modern advances in technology have had a significant impact on essentially every aspect of life. Regarding financial transactions, technological advances have not only changed how

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

consumers interact with their banking institutions and finances, but they have also revolutionised how businesses and financial organisations manage different company activities and offer services to their clientele. Digitalization is the process of converting data into a digital format via the use of technologies. The use of digitization in the banking sector, including banks, has had a significant impact on customer support and organisational culture. The banking sector is the most significant and gives insight into a nation's overall economic health. Digitalization of banks reduces human error, saves time, and opens the door for new services to be offered to clients. The study at hand aims to examine how bank operations have evolved both before and after digitalization, with a focus on the United States of America. The banking industry has undergone a significant transformation with the primary goal of meeting client needs at the lowest possible operating cost. In summary, the banking sector saw shifting consumer needs as a result of the times and embraced technology advancements in an effort to provide superior amenities at lower prices. The initial phase of digitalization was the information technology of the Indian banking industry.

LITERATURE REVIEW

The Banking Sector's Computerization: An Initial Step Toward Digitization

The Banking Sector's Computerization: An Initial Step Toward Digitization The computerization of the banking industry may be seen as a beginning to the financial sector's acceptance of technology, which had a significant impact on not just the workplace environment at institutions but also provided a sense of relaxation for both bank staff and consumers. In light of this, the benefit of bank computerization—a very dangerous choice—is covered in the study first. The financial services the system's manual labour culture has several related drawbacks:

- prone to errors.
- Operation is slow and takes a lot of time.
- The procedure of maintaining records is problematic.
- Issues pertaining to information retrieval.
- Information redundancy.
- Information that is inconsistent.
- The paper has a limited lifespan.
- Document-bound correspondence, bank announcements, workplace directives, etc.
- Minimal levels of client satisfaction.

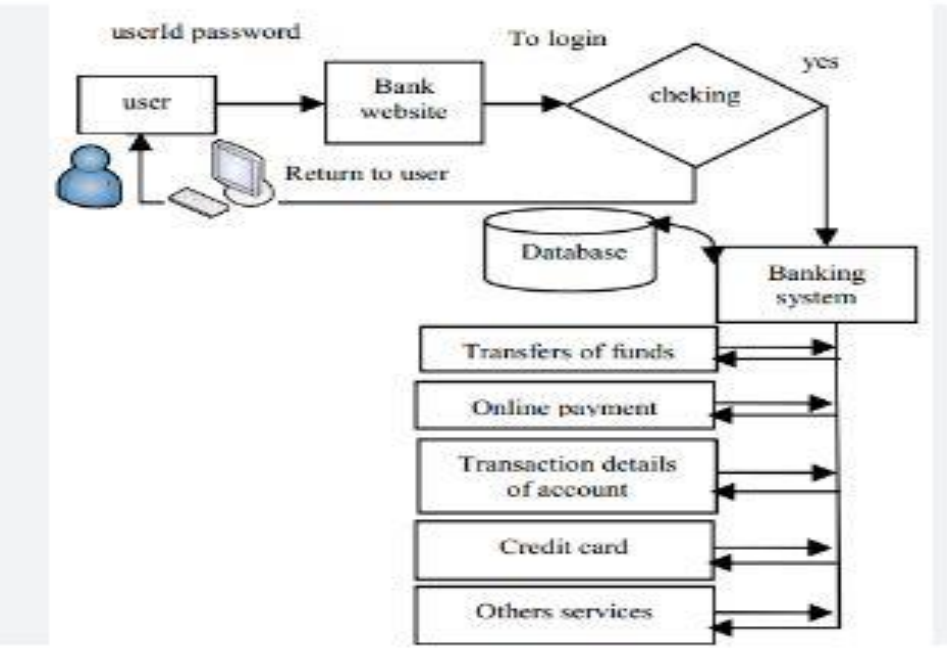
ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

Digitally encoded information, whether numerical or alternatively, is used by digital computers to function. A nation's banking sector is a good indicator of its overall economic health. It holds the distinction of being both a significant industry and one of the larger ones. Therefore, the RBI started computerizing banks in the last decades of the 20th century with the understanding that

- Reduce errors caused by humans;
- expedite banking operations and save time;
- enable data collection and storage;
- manage redundant information;
- supply consistent information;
- abstain from excessive paper use;
- ensure safe records are retained for an adequate amount of time;
- provide record backup; supply timely knowledge to employees and clients;
- and enhance relations with customers.

The advantages of computerizing Indian banks were as anticipated; it created new opportunities for technology adoption and cleared the way for banks to become digitalized, which is the process of converting data into electronic form via the use of technology. Furthermore, the development of the Internet and groundbreaking discoveries in the area of information and computer technology (ICT) have had a significant impact on modern bank operations.



ISSN PRINT 2319 1775 Online 2320 7876

 UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

Fig-1. Existing Model of Internet Banking System

Example of the problem

The working cultures of almost all firms and individuals have been profoundly impacted by technology. The globe has become a global village thanks to ICT and the Internet. This gave rise to the idea of conducting research to see how current technological advancements have affected the Indian banking industry.

"The study focuses at evaluating the impact of Digitization of Indian banks" is a problem statement. For this, an analysis is conducted on how Indian banks operated both before and after digitalization.

Objectives of the study

This study's primary goal is to examine the Indian banking sector in two distinct contexts—before and after digitalization was put into place. The specific goals of the present research investigation are as follows:

- familiarize oneself with the Indian banking industry;
- comprehend the need for bank digitization in India;
- analyse the effects of bank the digitization in India;
- accessibility the influence of bank digitization in the present scenario; and
- determine the future scope by utilizing technological developments.

METHODOLOGY

The following is the research approach used in this study:

- Creating the objectives
- Selecting the techniques for gathering data
- Choosing an instance length
- Data gathering
- Results of data analysis
- Findings
- Summarizing the research

The research method used in this study included a few important steps. First, goals were set to help guide the study. Then, the right methods for gathering data were chosen. After deciding how long the study would last, statistics were collected from the right sources. After the data was gathered, it was analysed, which led to the discovery of results. Finally, the research was summed up to give a full picture of what the study found.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

Restrictions to the study

Consumers are chosen at randomly to assess the degree they are pleased with the services that banks have provided or are now providing. The paper in question takes an insignificant sample size. Data is gathered only from the views of depositors, borrowers, and credit/debit card holders for assessing the quality of service provided to consumers.

ANALYSIS

The contemporary banking industry has undergone a complete transformation due to the widespread use of the Internet. People don't need to go to the bank branch in order to "bank anytime, anywhere."

By finishing tasks with a single click, this helps clients save time. The main focus of bank customers has been RTGS (Real Time Gross Settlement) and NEFT (National Electronic Fund Transfer). These days, it's feasible to move money between accounts quickly and securely, and the advent of digital banking has made this possible. Moreover, the use of cashless transactions has helped to reduce corruption.

The true potential and significance of electronic banking are just now becoming apparent via transactions without cash, which are made feasible by banks' digitalization.

The study's conclusions include:

First - To enable this relatively new banking model, infrastructure and technological accessibility must first be strengthened. Only then can someone seated at a distant location be able to use this service.

Second- in order to encourage more people to utilize this relatively new kind of banking, Indian digital banking still has to be more widely known via print, social, and television media.

Third- digital banking has drawn younger customers and is expected to become the most favoured method of banking in the years to come.

Fourth- a solid legal structure is necessary to protect consumers' rights and obligations.

Fifth- to take the necessary steps to address operations and threat factors in order to prevent breach of accounts and fraud. Bank clients must to be educated on security issues; this may be accomplished by providing Dos and Don'ts.

A Few Suggestions for Safe Banking

Since digital banking enables online transactions, concerns about internet security need to be carefully considered and handled. The banks are required to notify their clients and advise

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

them on regular precautions to take in order to safeguard their accounts against assaults. The precautions listed below may help ensure safe online banking:

- Boost the security of password and account;
- View devices that have accessed the account;
- Pay attention to security alerts;
- Defend against phishing attempts with Password Alert;
- Modify risky passwords in the account;
- Log in on a non-identical device;
- Lock or erase the misplaced phone or computer.

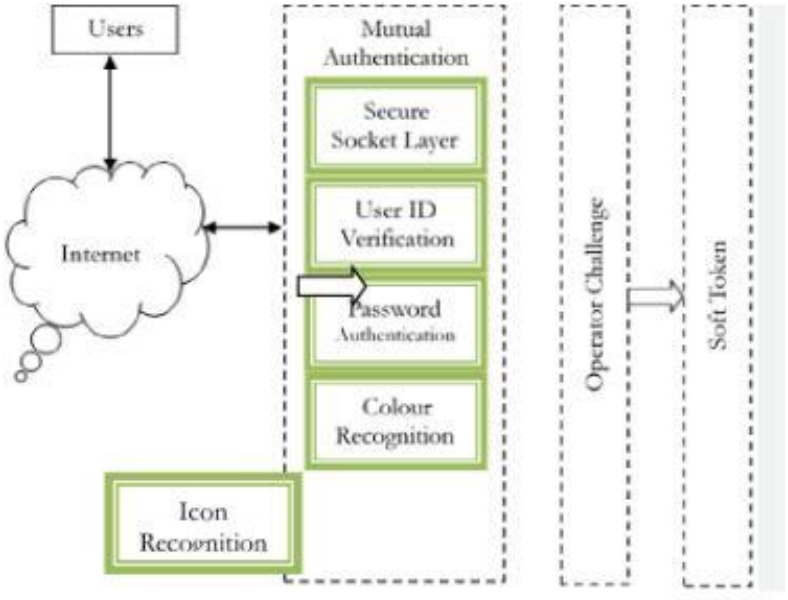


Fig-2. The Secure Bank System Architecture

Future Scope

Future breakthroughs in the area of digital banking are contingent upon the progress made in information and computer technology. There is a considerable chance that business analytics will significantly alter the banking industry. Computer technology is the subject of massive study, especially in the areas of machine learning and nanomaterials. The whole computer landscape will shift with the advent of nanotechnology. The research being done in this area is currently not up to the level of larger-scale deployment. Nonetheless, machine learning is being used in a number of difficult fields with promising results.

AI has the potential to be a highly useful technology in the banking industry. The study of machine learning in computer science aims to replicate human intellect and skills via the use of computers, software, and other electronic devices. It makes an effort to increase

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

productivity and finish time-consuming jobs quickly. In several industries, the use of AI has decreased human labour and the possibility of human mistake. Bankers are embracing artificial intelligence due to the following advantages:

- Compared with humans, AI reduces mistake rates and allows for error-free computing.
- It is quite helpful in lowering the amount of human effort required for difficult, repetitive, and tiresome jobs.
- It offers excellent predictive analysis in a range of banking scenarios.
- Fraud is simple to identify, and any form of harmful action may be stopped.
- A significant amount of data associated with transactions recording is made simple by the organization and management of records and information about clients.
- Artificial intelligence (AI) technologies are connecting with people and helping them solve issues quickly and effectively via application like voice recognition and natural language processing.
- At last, there is no concern about wearing out. AI is capable of using human intellect functions continuously without a stop, rest, or sleep.

Fig-3. Advantages of Internet Banking System

DISCUSSION

The discourse surrounding the transformation of the banking industry in the wake of the digital revolution is both current and critical. The way people interact with banks has changed because of the widespread use of internet-based services in modern banking. This study

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

highlights several important aspects of this paradigm shift and gives smart suggestions for making sure that digital banking systems continue to improve and stay safe.

One of the most important points made is that digital banking systems make things easier and more accessible for customers. One of the best things about modern banking is that people can do financial activities anytime, anywhere, with just a few clicks (Alam *et al.,* 2021). This is shown by real-time payment systems like RTGS and NEFT, which make it easy and safe to move money between accounts. In addition, moving away from cash deals not only makes things easier, but it's also a powerful way to fight corruption.

But the study's results list a few essentials that need to happen for digital banking to fully live up to its promise. First, the technology and facilities need to be strong enough to make ensure that services work well everywhere, even in places that are far away. Also, huge efforts need to be made right away to let more people know about the benefits and uses of digital banking. Having younger, tech-savvy people also shows how important it is to change with the times and adapt to new tastes and standards (Zollo *et al.,* 2022).

In the future, digital banking will grow a lot, especially as AI and machine learning become more popular. These technologies could change the way banks work by making them faster, more reliable, and better able to see into the future (Biswas *et al.,* 2020). AI is about to shift the way banks work by finding fraud, making hard jobs easier, and cutting down on the number of mistakes they make.

The study also shows both the good and bad effects of digitalization on the banking business. Those with a stake in digital banking can make sure it stays strong and grows by prioritising building infrastructure, customer education, law protections, and new technology. Using new technologies like AI will be important for getting the most out of digital banking, which will improve the customer experience and help more people get access to money (Borges *et al.,* 2020).

Aspect	Summary
Convenience and Accessibility	Banking anytime, anywhere with real-time fund transfers and cashless transactions.
Infrastructure and Accessibility	Robust infrastructure needed for seamless service delivery, even in remote areas.
Awareness Campaigns	Widespread media campaigns necessary to familiarize more people with digital banking.
Demographic Shift	Younger, tech-savvy customers increasingly favour digital

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

	banking methods.
Legal Framework	Solid legal structure essential to protect consumers' rights and obligations.
Security Measures	Proactive security measures, education, and protocols to mitigate risks like fraud and breaches.
Future Technological Advancements	Potential breakthroughs with AI and machine learning, promising efficiency and predictive capabilities.

CONCLUSION

The study's findings are as follows:

- Banks are now using a greater variety of electronic banking services and goods for the convenience of their clients.
- There are now several options for paperless purchases.
- Since adding cutting-edge technology to their banking systems, banks have had to deal with a number of issues pertaining to the confidentiality and security of their customers' financial information. Therefore, banks should make some unique arrangements in order to address this issue.
- The lending institutions should recruit skilled workers and knowledgeable technicians in the area of computers to ensure data protection and prevent fraud.
- Periodically, banking experts should give talks, conferences, and additional instruction.

REFERENCES

Alam, M.M., Awawdeh, A.E. and Muhamad, A.I.B., 2021. Using e-wallet for business process development: challenges and prospects in Malaysia. *Business Process Management Journal*, *27*(4), pp.1142-1162.https://hal.science/hal-03538151/file/J140.%20Challenges%20and%20Prospects%20of%20E-Wallet%20_BPMJ.pdf

Biswas, S., Carson, B., Chung, V., Singh, S. and Thomas, R., 2020. AI-bank of the future: Can banks meet the AI challenge. *New York: McKinsey & Company*.https://www.mckinsey.de/~/media/McKinsey/Industries/Financial%20Services/Our%20Insights/AI%20bank%20of%20the%20future%20Can%20banks%20meet%20the%20AI%20challenge/AI-bank-of-the-future-Can-banks-meet-the-AI-challenge.pdf

Borges, G.L., Marine, P. and Ibrahim, D.Y., 2020. Digital transformation and customers services: the banking revolution. *International Journal of Open Information Technologies*, *8*(7), pp.124-

ISSN PRINT 2319 1775 Online 2320 7876

 UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

128.https://cyberleninka.ru/article/n/digital-transformation-and-customers-services-the-banking-revolution

Report on trend and progress of banking in India, RBI, various years www.rbi.org.in

Shipra Gupta, Analysis of leverage ratio in selected Indian public sector banks, Asian Journal of Management Research, Vol. 2 no. 4. 2012.

Shipra Gupta, Comparative analysis of per share ratio of some selected Indian public sector banks, International Journal of Research in Commerce, Economics and Management, Vol. 2, No. 4, pp. 89-96, 2012.

Zollo, L., Rialti, R., Marrucci, A. and Ciappei, C., 2022. How do museums foster loyalty in tech-savvy visitors? The role of social media and digital experience. *Current Issues in Tourism*, *25*(18), pp.2991-3008.https://air.unimi.it/bitstream/2434/838453/2/CIT_2021.pdf