

A Study on Sustainable Development of Banks and financial institutions with the inclusion of Artificial Intelligence

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Abstract: In the present scenario the changing market demand has led the banks and financial service providing institutions to continuously update themselves and adjust their working environment by adopting the required technology to better serve their customers, boost the financial inclusion and keep up with changing times with advent of digitalisation, this change enables the banks to leverage with the power of data analysis and artificial intelligence (AI) to make better financial decision making. The study was undertaken to know how the implementation of artificial intelligence in banks and financial institutions has led to its development in creating customers database as per the customer's requirements and provide various financial assistance to them.

Keywords: financial institutions, banks, Customer Satisfaction, Artificial intelligence, financial decisions.

Introduction

The continuous development in technology and to cope up with the market scenario it becomes very important for every type of the organisation to be flexible enough to adjust themselves with the market environment. The banks are considered to be the backbone of every economy. With the advancement of the technology this sector is becoming one of the fastest adapters of AI which helps them to know the customer requirements and provide appropriate solution to them.

The banking sector has been witnessed one of the most significant technological changes which help them and to grow and expand. The Covid '19 has been the biggest challenge for this sector and with the government enforcement of lockdown forced large number people to use digital banking to satisfy their financial requirements. This led to the emergence of new business opportunity which is technology driven and this leads to emergence of Fintech industry. Now with the help of AI banking and financial institutions provide various products and services which are customer centric and cost effective as compared to traditional banking services. This improves the working environment, direct interaction and banks are now

able to compile large customer database, handle it easily and quickly, generate reports and provide expertise solution to their customers without delay.

Research Objectives

- To identify the areas and the application where the Artificial Intelligence is being used by the Banking and Financial Services.
- To find out the prospective challenges faced by the Indian banking sector with the inclusion of Artificial Intelligence.
- **Research Design**

This research is based on qualitative research design ,exploratory and descriptive in nature to investigate in the aforesaid research topic.

Data Collection

The research was based on systematic study of various articles to find out the usage of AI and its impact on the growth of Indian Banks and customer satisfaction.

Literature Review

Ranjan et al. (2020), In their research titled "Artificial intelligence in Financial Acumen: Challenges and opportunities" discusses how individual processes Financial information through their Intelligence and make decisions. That will further help in development of training modules based on artificial intelligence which will reduce the biases and improve decision making. The study also highlights that implementation of artificial intelligence can increase business efficiency, render customized administration and can provide better objectives. The ambiguity move towards technology is rapidly impacting the traditional finance models also involving cyber security threats. The paper effectively highlights benefits, challenges and applications of AI technology in Finance.

Birau et al. (2021) also suggested that the banking system is a vital mechanism in terms of reaching a sustainable level of development of the global economy.

Karbassi Yazdi et al. (2022) argued that service industry is essential for a sustainable the economic development, especially because unlike traditional sectors the dependence on conventional resources is much reduced and it is open to the application of new and innovative business models.

Bhattacharya et al. (2022)-The study made by the authors describes in its study that banking innovations integrated with artificial intelligence have the most predominant role to play in today's digitalized world. The paper also proposes the IT architecture and best practises for the digital banking sector. It is proven in this research, that if a customer uses a Chabot towards assistance, it results in greater customer satisfaction

which results in better customer service. The Indian banks may use the different digitalized instruments that can benefit to expand their business operations further. The study also sheds light on digital advancements, where financial institutions and banks have to strengthen trust and loyalty to create better customer experiences in order to build their processes most effective and accelerated. Ultimately, AI technologies in the financial sector have the capability to rapidly modify both customer and employee experiences. The study concludes by saying that there is a significant relationship between offers or discounts and customer relationships. Financial institutions can collaborate with FinTech companies to reinforce digital banking in an economical and systematic manner.(**Bhattacharya .et al., 2022**).

Noreen et al. (2023) suggested that the banking industry can use suitable methods based on artificial intelligence in order to improve the quality of customer services as well as the banks' performance indicators.

The Role of an AI in development of the Banks and Financial Institutions.

AI plays an important role in reducing various types of financial risk in banks and financial institution. AI has a phenomenal impact in redefining the working styles of banks and financial institutions. Now within few seconds they can compile the large amount of data relating to credit risk and find out the individual and business houses defaulters of loan repayment. Apart from this AI also helps the banks in providing customise services to their customers with minimisation of cost. The Finance Minister in the Budget 2023 uplifted the use of raising importance of artificial intelligence and its related technologies by establishing three centres for excellence in Artificial Intelligence across the country. The Finance Ministry also stated "Make AI work for India". It brings automation and simplifies the processes. The use of artificial intelligence helps in statistical analysis and mathematical calculation which helps the banks in cost reduction and capital optimisation. The technology also helps in knowing the credit scoring and rating of their customers for lending purposes and extremely applicable to security and fraud detection. AI enables Banks to access customer data, their KYC records, financial status, and records of online and offline transactions for providing personalized services to consumers. The predictive analysis helps the banks and financial institution to anticipate the market trends, customer demands and potential challenges. An AI-powered forecasting tool helps in effective and efficient decision making to maximise the revenue generation and reduction in non-performing assets.

Scope of the Study

The Banking and Financial services are one of regulated sectors of an economy performing various digital transactions that occur daily both from the institution side and customer's side such as users pay bills, withdraw money, deposit checks, and do much more via apps or online accounts. The digitisation and adoption of AI in the Indian banking systems by private financial institutions like ICICI Bank, HDFC Bank, Axis Bank, Kotak Mahindra Bank, etc. An AI application like Chatbots provides an opportunity to the financial institutions to create a user friendly environment for customers, reduce error done by employees and make better investment decisions. Intelligent Decision Management System helps the institutions remain compliant by reducing time for knowing customer information accurately. It was predicted in various survey reports that by 2025, there is an estimate that more than 400 million Indian adults will hold neo bank accounts. AI can detect specific patterns and correlations in the data, which the traditional system cannot detect. This pattern helps this sector in sales opportunities, operational data efficiency and helps in generating better revenue prospective. The future prospect of artificial intelligence in banking industry is promising with potential developments including advanced fraud detection, increased personalisation, and integration with voice assistance and collaboration with Fintech start-ups. Artificial intelligence has transformed every aspect of banking process faster, safer and more efficient. It was projected that AI in banking industry is expected to reach \$64.03 billion by 2030. However, a proper evaluation of AI in banking and financial services would be incomplete without examining some misconceptions of artificial intelligence. For example, the idea that machine learning is at par with human intelligence is a myth. Furthermore, even where artificial intelligence appears to surpass human abilities, such as using many variables to predict an outcome, the cost often exceeds the benefits.

“Though the artificial intelligence plays an important role in redefining the banking sectors still it cannot replace the government compliance and law parameters.”

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