

# How Artificial Intelligence is Transforming the Financial Services Industry

The Financial Services Industry has entered the Artificial Intelligence (AI) phase of the digital marathon, a journey that started with the advent of the internet and has taken organisations through several stages of digitalisation. The emergence of AI is disrupting the physics of the industry, weakening the bonds that have held together the components of the traditional financial institutions and opening the door to more innovations and new operating models.

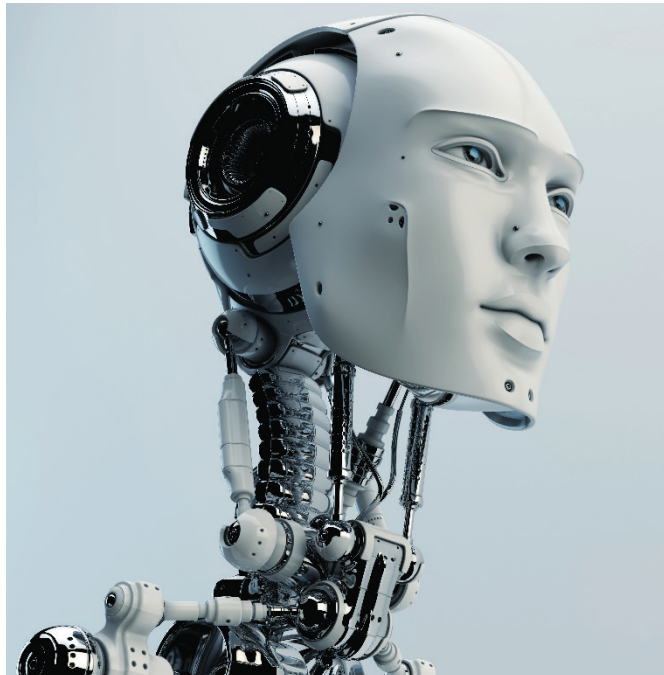
AI is an area of computer science that emphasises on the creation of intelligent machines that work and perform tasks like humans. These machines are able to teach themselves, organise and interpret information to make predictions based on this information. It has therefore become an essential part of technology in the Banking, Financial Services and Insurance (BFSI) Industry, and is changing the way products and services are offered.

## Why AI in Banks? Why Now?

AI is changing the quality of products and services the banking industry offers. Not only has it provided better methods to handle data and improve customer experience, it has also simplified, sped up, and redefined traditional processes to make them more efficient. With the availability of technologies such as AI, data has become the most valuable asset in a financial services organisation. Now more than ever, banks are aware of the innovative and cost-efficient solutions AI provides, and understand that asset size, although important, will no longer be sufficient on its own to build a successful business. Instead, the success of the BFSI companies is now measured by their ability to use technology to harness the power of their data to create innovative and personalised products and services.

## What are the drivers of AI disruption in Banking?

- **Explosion of Data (Big Data):** The explosion of the big data market has had a major impact on the Banking industry due to the changing expectations of customers. Customers now interact with their banks on a more digital level, and in addition to the traditional structured data e.g. transactional data, organisations nowadays collect large volumes of unstructured data such as emails, text and voice messages, images and videos via



their customer service, social media platforms and other mediums of data collection. Leveraging on big data, banks are now able to offer more personalised services. Banking organisations are using a 360-degree view of the customer's interaction with the brand, including basic personal data, transaction history, and social media interactions to inform their decision-making processes.

- **Availability of infrastructure (Fast computers, hardware, software, Cloud):** The explosion of cloud technology as well as high computational resources and infrastructure availability, allows for quick processing of large data at lower costs and efficiency in scalability. This means organisations are ready to leveraged AI now, more than ever.
- **Regulatory requirements:** Banks are under a lot of scrutiny from regulators to provide accurate reports in a timely manner, to meet their regulatory obligations. Regulatory compliance processes require collection of data from various source systems. AI-driven solutions offer a chance to address some of the challenges in today's financial systems by automating the data collection processes, improving the speed and quality of decisions and enhancing the organisation's readiness to meet regulatory compliance obligations. Continued development of AI will radically transform the front and back-office operations of financial institutions. The AI expansion will also require adjustments to

longstanding regulations and major changes to the current structure of global financial markets. This shift is an opportunity for compliance teams to strategically invest in new technologies in order to enable banks to become more future-ready

- **Competition:** Banks are constantly competing with their peers in the industry, and more recently with FinTechs, to provide the best services to their clients. Technology has become a differentiator in this space as organisations take advantage of available cutting edge technologies to harvest the vast amount of data they possess. As a result, banks are using AI to optimise current service offerings, take new offerings to market and provide a more personalised experience for their customers.

The above mentioned factors are constantly evolving and bringing new values and opportunities to businesses, to effectively capitalise on the advantages offered by AI. The BFSI market is ideally positioned to be part of this disruption and advance in its digital transformation journey.

## AI Applications in the banking sector

We are already seeing several areas in banking services that have been taking advantage of this disruptive technology. The following are some use cases where AI has been most impactful within the BFSI industry.

- **Chatbots:** AI-powered chatbots incorporated with Natural Language Processing (NLP), engage and interact with customers 24/7 and enhance online

conversations. In addition to typical responses to customers' questions to help them work through their account details, chatbots can now help in opening new accounts and directing complaints to appropriate customer service units amongst others.

- **Fraud Detection & Prevention:** Until very recently, banks have relied on traditional, rule-based Anti-Money Laundering (AML) transaction monitoring and name screening systems which generate a high number of false positives. With the alarming increase in fraud-related crimes and ever-changing fraud patterns, enhanced AI components are being added to the existing systems to enable the identification of previously undetected transactional patterns, data anomalies and suspicious relationships between individuals and entities. This allows for a more proactive approach, where AI is used to prevent fraud before it happens as opposed to the traditional reactive approach to fraud detection.
- **Customer Relationship Management:** Customer relationship management is an important factor for banks. Banks are now providing more personalised 24/7 services to individual customers such as providing facial recognition and voice command features to log in to financial apps. Banks are also leveraging Artificial Intelligence to analyse customer behavioural patterns and automatically perform customer segmentation which allows for targeted marketing and improved customer experience and interaction.
- **Predictive Analytics:** The advent of Machine Learning (ML) & AI has opened the door to accurate forecasting and prediction. Data Analytics and AI are being applied to revenue forecasting, stock price predictions, risk monitoring and case management. The exponential increase in the data collected has been pivotal in improving the performance of the models, resulting in a gradual decline in the level of human intervention required.
- **Credit Risk Management:** As regulators continue to focus on risk management supervision, financial institutions are mandated to develop more reliable models and solutions. The use of AI in credit risk management is gaining

more popularity especially in the Fintech and the Digital Banking market. AI is used to determine the creditworthiness of the facility borrower by harnessing data to predict the probability of default which helps to improve the accuracy of credit decisions. As a result, the market is moving towards insights-driven lending rather than expert judgement which helps maximize rejection of high-risks customers and minimize rejection of creditworthy customers as well as a reduction in credit losses incurred by the financial institutions.

## What Next for Nigeria?

Similar to the global trends, the Nigerian market has very much been disrupted by AI technology. Though this journey is still in its infancy, Executive Leaders of BFSIs are starting to realize the potential of AI and strides are being taken to accelerate this transformation. At Deloitte, we help our clients, including Financial Institutions, on this journey to becoming an Insight-Driven Organisation (IDO) by creating organisational changes in various aspects of the business including Strategy, People, Process, Data and Technology, each of which must align for this objective to be achieved.

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