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# Future Trends of Digital Disruption in the BFSI Sector: The Role of Artificial Intelligence and Blockchain

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**Abstract:** *The BFSI sector is witnessing a series of changes triggered by digital disruption and technology. With the rising adoption of artificial intelligence, blockchain, automation, and digital technology, the BFSI sector has been totally revamped in terms of doing and delivering. As per the objectives of research, this research paper presents an effort to study and analyse the upcoming trends within the BFSI sector triggered by digital disruption with a specific emphasis on digitalization, artificial intelligence, and blockchain technology. The research design and type for this research paper would be Descriptive and Exploratory featuring conceptual and Quantitative research streams. For the primary data collection for this research paper, a structured questionnaire approach is adopted. For the data analysis for this research paper, due to the limitations of the usage of statistical data analysis, Percentage Analysis and Mean Score Analysis would be adopted. For data collection for this research paper, data abstraction for data collection for this research paper is adopted. Data from published literature from research journals and published literature is abstracted to create data for this research paper. Result analysis for this research paper marked the significance of the fact that there existed a mindset on digital disruption within the BFSI sector featuring a specific emphasis on digitalization, artificial intelligence, and blockchain technology, and yet remains to be a challenge from the viewpoints of security and legality.*

**Keywords:** *Digital Disruption, BFSI Sector, Artificial Intelligence, Blockchain Technology, Digitalization*

## I. INTRODUCTION

### A. Background of BFSI Industry

Banking, Financial Services, and Insurance (BFSI) is the backbone of any economy. The activities of BFSI include supplying funds for future use through savings and investments, generation of credits, risk management, and management of the stability of funds. The sector of BFSI is of paramount importance to any country. The sector significantly affects the businesses of both the developing economy and the developed economy. The tasks performed by BFSI include supplying funds to the sectors as well as the development of the country. BFSI industry adopted the branch model, which implies that their operations and transactions took place offline, meaning that they involved manual processes and paperwork. As far as the financial institutions in this case were concerned, they used standardized products, processes, and decision-making systems.

### B. Introduction of Digitalization to Business

As the Digital technology has brought about major changes in conducting business operations, especially in the BFSI sector. Digitalization can be defined as the usage of digital techniques and technologies, which utilize digital solutions and innovations, in adding value to the business operations of the company. The availability of the Internet, smartphones, cloud technology, and data analytics technology has made it mandatory that customers be provided with efficient services by most businesses. Digitalization brought about the development of such things as e-payment systems, e-transactions, m-commerce, and digital business that can run on its own regardless of the restriction of space and time. The BFSI sector is one of the largest sectors that adopted digitalization and the digital platform for business development and expansion of various services to clients. This happened due to advancements in digital payment systems and internet banking, among others.

### C. *Concept of Digital Disruption in the BFSI Sector*

Digital disruption is a much deeper and radical change compared to Digitalization. Digitalization is about using technology to enhance the current business processes, whereas Digital Disruption is all about a complete shift in business models and competitiveness. Digital disruption in the BFSI sector has changed the current paradigms of banking and financial institutions with the help of technology, keeping in focus speed, agility, and customers.

### D. *Role of Emerging Technologies: AI and Blockchain*

Amongst various technologies that are resulting in a disruption in the BFSI industry, blockchain and AI technology can be considered as one such force that will alter the scenario of this industry in the coming years. Artificial intelligence will help financial institutions process large data and make decisions that will ultimately lead to an improved customer experience. AI applications such as chatbots and virtual assistants have improved efficiency in the BFSI industry.

### E. *Need for the Study*

Despite the widespread adoption of information and communication technologies, the BFSI sector continues to face challenges related to cybersecurity, data privacy, regulatory compliance, and employee skill gaps. The increasing reliance on digital platforms exposes financial institutions to operational and technological risks, necessitating a careful balance between innovation and security. In this context, understanding emerging trends in digital disruption becomes essential to effectively manage future opportunities and threats. While existing studies focus on specific technologies, there remains a need for a comprehensive examination of digital transformation, artificial intelligence, and blockchain in the BFSI sector. Accordingly, the present study examines future trends of digital disruption in the BFSI industry based on consumer perceptions.

## II. REVIEW OF LITERATURE

### A. *Digital Disruption*

Digital disruption is conceptualized as the transformation of traditional business models through digital innovation. Christensen et al. (2016) explained that digital disruption occurs when digital innovations alter value chains and challenge established market leaders. Bharadwaj et al. (2013) further emphasized that digital disruption extends beyond technological change to include fundamental shifts in organizational strategy and value creation.

Scholars have also noted that digital disruption lowers barriers to entry and intensifies competition across industries, including the financial sector (Downes & Nunes, 2014). Vial (2019) highlighted that continuous adaptation to disruptive digital forces is essential for organizations to sustain competitiveness in dynamic markets.

### B. *Digital Transformation in the BFSI Sector*

Digital transformation in BFSI has emerged as a sector that has witnessed extensive digitization based on the dependence on the processing of information and interaction with customers. As noted by Gomber et al. (2018), digitization has had a substantial impact on the banking sector by increasing the efficiency level, cutting the cost of transactions, and improving the delivery of services. The study by Arner et al. (2017) emphasized that FinTech has contributed to the transformation brought about by technological advancements in the banking sector.

Research has also focused on the effects of digital transformation on the satisfaction of customers within the BFSI sector. According to Gupta and Xia (2018), digital banking services have been observed to create greater customer convenience and accessibility, thus resulting in greater levels of satisfaction among customers. Conversely, some research has expressed dissatisfaction over the threat of cyber-attacks and operations within the adoption of digital technology (Khan et al., 2021).

### C. *Role of Artificial Intelligence in BFSI*

One of the major forces behind digital disruption in BFSI is artificial intelligence. Russell and Norvig (2021) stated that artificial intelligence is a technology behind simulating human intelligence to improve decision-making and automation. Nevertheless, research revealed that artificial intelligence is widely utilized in various activities such as fraud analysis, credit scoring, customer service, and risk management in the BFSI industry (Bussmann et al., 2021).

Research work by Dwivedi et al. (2021) found that chatbots and virtual assistants based on AI technology enhance customer experience with real-time and personalized services offered to customers.

Along the same vein, research work by Kumar et al. (2020) found that AI-based analytics improve the predictability of risk assessment in the area of credit and finance. Notwithstanding the aforementioned benefits of AI technology, researchers have warned of the dangers of unethical practices and lack of transparency in AI technology (Floridi et al., 2018).

#### *D. Blockchain Technology and Financial Services*

There has been interest in research about the application of blockchain technology because of its potential in transforming financial transactions and governance. Nakamoto (2008) conceptualized blockchain technology as a decentralized system for transaction processing. Various studies have been conducted to see the viability of using blockchain technology in banking, insurance, and financial sectors. Blockchain technology increases trust and immutability in data, as stated by Tapscott and Tapscott (2017).

Iansiti and Lakhani (2017) discussed how the use of blockchain would eventually decrease the cost of transactions and increase the efficiency of operational activities in the financial industry. Some studies also emphasized the concept of smart contracts being applied in the automation of insurance and financial contracts (Casino et al., 2019). But the lack of scalability and compatibility has also been argued as a significant factor hindering the adoption of blockchain technology in the financial industry (Yaga et al., 2019).

#### *E. Customer Perception towards Digitalization in BFSI*

Customer perception is essential in ensuring the successful implementation of digital technologies in the BFSI industry. Davis's Technology Acceptance Model (TAM), published in 1989, clearly highlighted the importance of perceived usefulness and ease of use of technology. Many studies based on TAM have shown that, from the customer's point of view, online banking and payment solutions are convenient and efficient services offered by these institutions (Venkatesh et al., 2012).

Studies carried out by Gupta et al. (2019) proved that customer hesitance to adopt digital financial services is highly susceptible to factors such as customer trust and feelings of security. Also, as found by Ryu (2018), customer apprehensions regarding risk and data privacy could act as potential barriers to digital service adoption, particularly on the part of older-generation customers.

#### *F. Research Gap*

Although extensive literature exists on digital transformation, artificial intelligence, and blockchain technologies, studies in the BFSI sector largely focus on individual technologies or their current applications. There remains a significant research gap regarding the combined impact of digital disruption, AI, and blockchain in forecasting future trends in the BFSI sector (Vial, 2019). Additionally, empirical studies capturing customer perceptions of the cumulative influence of these technologies—particularly in emerging economies—are limited. Most existing research also emphasizes technological aspects while giving insufficient attention to strategic and future-oriented implications. Accordingly, the present study addresses this gap through a conceptual framework supported by quantitative analysis to examine future trends of digital disruption in the BFSI sector.

### **III. CONCEPT OF DIGITAL DISRUPTION**

Digital disruption refers to the process through which digital technologies bring fundamental changes to business models, value creation, and market structures. Unlike incremental technological improvements, digital disruption leads to conceptual shifts in how organizations operate and compete. Christensen et al. (2016) explained that digital disruption occurs when digital innovations transform traditional business practices and processes. The phenomenon has become widespread across industries due to rapid technological advancement and evolving consumer behaviour. Digital disruption is often confused with digitization and digitalization, though these concepts differ in scope and impact. Digitization involves converting analogue information into digital formats, while digitalization refers to the use of digital technologies to improve existing processes. Digital disruption goes beyond process enhancement and results in the transformation of entire business models, organizational structures, and value chains (Bharadwaj et al., 2013). Hence, it represents the most advanced stage of digital transformation.

A defining feature of digital disruption is its ability to lower entry barriers and intensify competition. Digital technologies enable new entrants to scale rapidly without extensive physical infrastructure, allowing them to challenge established firms (Downes & Nunes, 2014). In the BFSI sector, this has led to the emergence of FinTech firms and digital financial service providers offering technology-driven, customer-centric solutions that challenge traditional banking and insurance models.

Another key aspect of digital disruption is the shift from product-based models to platform- and data-driven ecosystems. Vial (2019) highlighted that organizations increasingly rely on data analytics, artificial intelligence, and automation to deliver personalized services and support real-time decision-making.

Digital disruption also entails significant organizational and strategic changes. Traditional hierarchical structures are being replaced by agile and flexible systems supported by digital technologies. Westerman et al. (2014) emphasized that successful digital disruption requires not only technological investment but also cultural change, skill development, and strategic leadership. Despite its benefits, digital disruption introduces risks related to cybersecurity, data privacy, and regulatory compliance. Khan et al. (2021) noted that managing these risks is essential to ensure stability and trust in digitally disrupted environments

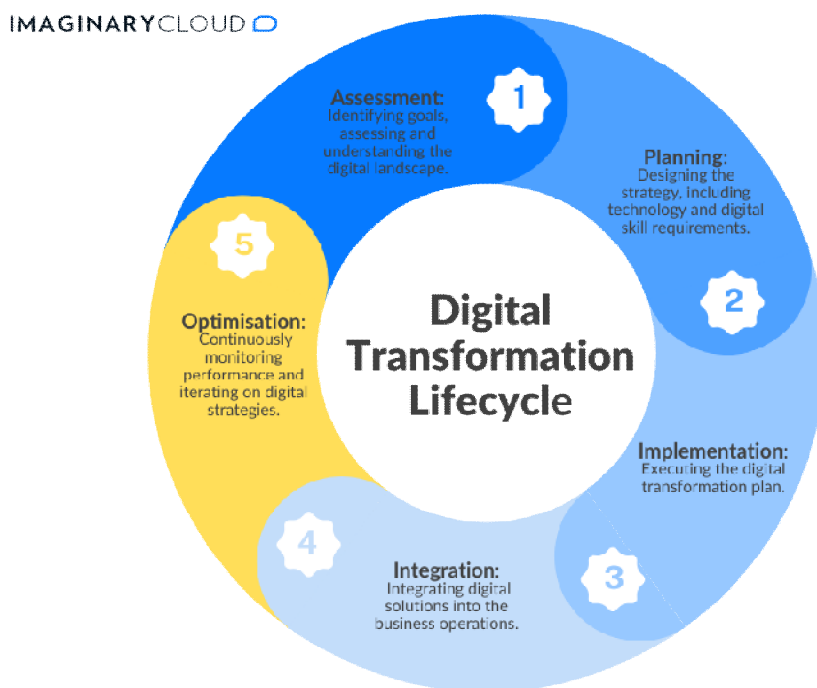


Figure 1: Conceptual Framework of Digital Disruption

Figure 1 illustrates the conceptual progression from digitization to digitalization and ultimately to digital disruption. Digitization represents the conversion of analogue information into digital formats, while digitalization focuses on the use of digital technologies to improve existing processes and services. Digital disruption, however, signifies a fundamental transformation in business models, operational structures, and value creation mechanisms. The diagram highlights how emerging technologies such as artificial intelligence, blockchain, big data analytics, and automation act as key enablers of digital disruption. These technologies collectively influence business model innovation, customer experience enhancement, and competitive restructuring, particularly in the BFSI sector.

#### IV. DIGITALIZATION IN THE BFSI SECTOR

Digitalization in the Banking, Financial Services, and Insurance (BFSI) sector refers to the adoption of digital technologies to improve operational efficiency and deliver customer-centric financial services. Over the past decade, the sector has shifted from paper-based, branch-oriented operations to technology-driven service delivery, supported by increased internet and smartphone penetration.

The early phase of BFSI digitalization focused on automating internal processes through core banking systems, electronic record-keeping, and web-enabled transaction platforms to improve efficiency and accuracy. These initiatives laid the foundation for large-scale transformation by embedding information and communication technologies into financial operations (Gomber et al., 2018).

Subsequently, digitalization expanded to customer-facing services, transforming customer interaction with financial institutions. Internet and mobile banking, online payment systems, and digital wallets have become integral to financial services, improving convenience, speed, and accessibility, particularly in remote areas, and thereby supporting financial inclusion (Gupta & Xia, 2018). The growth of FinTech firms has further accelerated digitalization in the BFSI sector. FinTech innovations such as peer-to-peer lending, robo-advisory services, and digital insurance platforms have challenged traditional financial intermediation by offering faster and cost-effective solutions, prompting BFSI institutions to increasingly adopt technology-driven models (Arner et al., 2017). Digitalization has also enhanced risk management and decision-making through the use of big data analytics and advanced information systems for credit assessment, fraud detection, and financial forecasting. Data-driven decision-making has emerged as a key competitive advantage in responding to dynamic market conditions (Vial, 2019).

Despite its benefits, digitalization poses challenges related to cybersecurity, data privacy, regulatory compliance, and workforce skill requirements. Managing these risks is essential for sustaining digital transformation and for enabling the effective integration of advanced technologies such as artificial intelligence in the BFSI sector (Khan et al., 2021).

## V. ROLE OF ARTIFICIAL INTELLIGENCE IN THE BFSI SECTOR

Artificial Intelligence (AI) is one of the most significant technologies accelerating digital disruption in the BFSI sector. AI refers to the capability of computer systems to perform tasks such as learning, reasoning, problem-solving, and decision-making that traditionally require human intelligence. Given the data-intensive nature of financial services, BFSI institutions have widely adopted AI-based solutions to improve operational efficiency, accuracy, and customer experience, thereby transforming traditional financial services into intelligent, automated, and personalized systems.

One of the prominent applications of AI in the BFSI sector is customer service and engagement. AI-powered chatbots and virtual assistants are extensively used to provide real-time support and assist customers in routine transactions. Studies indicate that AI-driven customer service solutions reduce operational costs and response time while enhancing service efficiency and consistency (Dwivedi et al., 2021).

AI also plays a crucial role in credit assessment and risk management. Conventional credit evaluation methods rely on limited data and manual analysis, often resulting in delays and inaccuracies. In contrast, AI models analyse large volumes of transactional and behavioural data to assess creditworthiness more accurately and efficiently. Research suggests that AI-based credit scoring improves predictive accuracy and reduces default risk (Kumar et al., 2020).

Another critical application of AI in BFSI is fraud detection and cybersecurity. The increasing complexity of digital financial fraud necessitates advanced detection mechanisms. AI algorithms analyse transaction patterns in real time to identify anomalies and potential threats. According to Bussmann et al. (2021),

Beyond operational improvements, AI contributes to strategic decision-making and business intelligence in the BFSI sector. Advanced analytics and machine learning models support financial forecasting, portfolio management, and investment analysis by generating data-driven insights. Venkatesh et al. (2012) noted that the integration of intelligent systems enhances organizational adaptability and competitiveness in digital environments.

Despite its advantages, the adoption of AI in BFSI raises ethical and regulatory concerns related to transparency, accountability, and data privacy. Floridi et al. (2018) emphasized that a lack of explainability in AI systems may undermine trust among customers and regulators. Therefore, effective

## VI. ROLE OF BLOCKCHAIN TECHNOLOGY IN THE BFSI SECTOR

Blockchain technology has emerged as a key driver of digital disruption in the BFSI sector by enabling decentralized, transparent, and secure financial transactions. It is defined as a distributed ledger technology that records transactions in an immutable and secure manner across a network of computers (Nakamoto, 2008). Blockchain enhances transparency and trust by enabling peer-to-peer transactions verified through consensus mechanisms, thereby reducing reliance on intermediaries and operational costs (Tapscott & Tapscott, 2017). It also improves efficiency by reducing transaction time and costs, particularly in cross-border payments and settlements (Iansiti & Lakhani, 2017). In insurance, smart contracts automate policy execution and claims processing, helping to reduce fraud and disputes (Casino et al., 2019).

Furthermore, blockchain strengthens security and data integrity through encrypted and distributed data storage, limiting unauthorized access and cyber risks (Yaga et al., 2019).

## VII. FUTURE TRENDS OF DIGITAL DISRUPTION IN THE BFSI SECTOR

The future of the BFSI sector is expected to be shaped by continuous digital disruption driven by technological innovation, evolving customer expectations, and regulatory changes. BFSI institutions are moving beyond basic digitalization towards intelligent, automated, and platform-based financial ecosystems. Technologies such as artificial intelligence, blockchain, automation, and advanced analytics are expected to reshape business models and service delivery while enhancing operational efficiency.

A major future trend in BFSI is the deeper integration of artificial intelligence. AI is expected to evolve from task-based automation to advanced cognitive systems supporting predictive and prescriptive decision-making. Future applications are likely to focus on hyper-personalized services, real-time risk assessment, and autonomous financial advisory solutions, thereby improving customer experience and financial inclusion (Dwivedi et al., 2021).

Blockchain technology is also expected to progress from pilot applications to large-scale institutional adoption. Its role in payment systems, cross-border transactions, trade finance, and digital identity management is expected to expand, enabling secure, transparent, and interoperable financial networks while reducing reliance on intermediaries (Tapscott & Tapscott, 2017). Greater regulatory clarity is likely to accelerate blockchain adoption.

The BFSI sector is witnessing the growth of digital-only and platform-based institutions such as neo-banks, embedded finance platforms, and Banking-as-a-Service (BaaS) models. These platforms enable collaboration between traditional financial institutions, FinTech firms, and third-party providers, fostering innovation and customer engagement (Gomber et al., 2018).

Automation and robotic process automation (RPA) are expected to further transform BFSI operations by optimizing end-to-end processes such as regulatory reporting, transaction processing, and customer onboarding. While automation can significantly reduce costs and errors, it also raises concerns related to workforce displacement and reskilling (Vial, 2019).

Cybersecurity and regulatory technology (RegTech) are anticipated to become critical components of future digital disruption. As digital financial services expand, AI-driven cybersecurity solutions and RegTech tools will be essential for managing cyber risks, ensuring compliance, and protecting sensitive financial data (Khan et al., 2021).

Overall, future trends indicate a shift towards intelligent, decentralized, and customer-centric financial systems in the BFSI sector. While digital disruption presents opportunities for innovation and growth, addressing challenges related to cybersecurity, regulation, and workforce transformation is essential for sustaining competitiveness in an increasingly digital financial environment.

## VIII. RESEARCH METHODOLOGY

Research methodology is designed to ensure that every piece of research is done in a manner that would make it valid and authentic. This study includes structured research methodology to identify the future wave of digital disruption in the BFSI sector based on conceptual and empirical research.

### A. Research Design

For the proposed research, the study employs a descriptive and exploratory research design. The reason why the research uses a descriptive research approach is that the approach is employed to describe the respondents' perception towards digital disruption in the BFSI industry. The other reason is that the research is exploratory, which aids in discovering the new trends emerging from artificial intelligence and blockchain technology. The research design is appropriate considering the proposed study seeks to reveal both the conceptual and perceptual aspects of digital disruption.

### B. Nature of the Study

Conceptual analysis, combined with quantitative analysis, is utilized in this research. The conceptual analysis is conducted to highlight digital disruption, digitalization, AI, and blockchain technology in the BFSI industry on the basis of previous studies. The quantitative analysis is utilized to strengthen this conceptual discussion, measuring customers' attitudes towards digital disruption on the basis of primary information.

### C. Sources of Data.

#### 1) Primary Data:

For collecting primary data, a structured questionnaire was used targeting users of BFSI services. The structured questionnaire included demographic sections and a series of statements on attitudes toward digital disruption, artificial intelligence, and blockchain in the BFSI industry.

2) *Secondary Data:*

The secondary data has been gathered from various journals, books, proceedings, and other relevant published works on digital disruption, BFSI, artificial intelligence, and blockchain technology.

D. *Sample Design*

The sample for the proposed study was chosen using the convenience sampling technique. The study was conducted on 63 participants using BFSI services including banking, insurance, online payment, and investment services. Convenience sampling was chosen due to time factors and the accessibility of the participants, which is widely accepted for exploratory research-level studies and conferences.

E. *Instrument for Data Collection*

Primary data were collected using a structured questionnaire comprising two sections. Section A captured the demographic profile of respondents, including gender, age, educational qualification, occupation, and BFSI services used. Section B contained fifteen statements related to digital banking, artificial intelligence, blockchain technology, customer experience, and future trends of digital disruption in the BFSI sector. Responses were measured on a five-point Likert scale ranging from *Strongly Disagree (1)* to *Strongly Agree (5)*.

F. *Tools and Techniques of Analysis*

The data collected was analysed using basic descriptive statistical methodology. The following methodologies were used:

Percentage calculations for demographic variables

Analysis of mean scores on the Likert statements

G. *Period of the Study*

Data collection for the research mainly took place in the year 2025.

H. *Limitations of the Study*

Although the study has made valuable contributions, there appear to be some limitations to the study as well. The study results have been obtained on the basis of a small sample size, using convenience sampling. This may create constraints for generalizing the study results to a wider scope.

**IX. DATA ANALYSIS AND INTERPRETATION**

A. *Demographic Profile of Respondents*

Sl. No	Demographic Variable	Category	No. of Respondents	Percentage (%)
1	Gender	Male	32	50.8
		Female	29	46.0
		Prefer not to say	2	3.2
		Total	63	100
2	Age Group	Below 20 years	6	9.5
		21–30 years	24	38.1
		31–40 years	18	28.6
		41–50 years	10	15.9
		Above 50 years	5	7.9
		Total	63	100
3	Educational Qualification	Higher Secondary	7	11.1

Sl. No	Demographic Variable	Category	No. of Respondents	Percentage (%)
4	Occupation	Undergraduate	22	34.9
		Postgraduate	26	41.3
		Professional qualification	5	7.9
		Others	3	4.8
		Total	63	100
		Student	15	23.8
		Employed	27	42.9
		Business	10	15.9
		Professional	8	12.7
		Others	3	4.7
5	BFSI Services Used*	Total	63	100
		Banking	52	82.5
		Insurance	38	60.3
		Digital payment services	49	77.8
		Investment services	21	33.3

Table 1: Demographic Profile of Respondents

Table 1 shows the demographic profile of respondents. The majority of respondents belong to the 21–40 age group and possess undergraduate or postgraduate qualifications. Most respondents actively use banking and digital payment services, indicating adequate exposure to digital BFSI platforms, which enhances the relevance of the study.

*B. Perception towards Digital Banking and Technology - Mean Score Analysis*

Sl. No	Statements	Mean Score	Standard Deviation
1	Digital banking services have improved convenience in the BFSI sector.	4.28	0.68
2	Mobile and internet banking have reduced the need for physical branch visits.	4.34	0.72

Table 2: Mean Score Analysis – Perception towards Digital Banking and Technology

Table 2 reveals a high level of agreement among respondents regarding the effectiveness of digital banking and technology in the BFSI sector. The mean scores above 4.00 indicate that respondents strongly perceive digital banking services as convenient and capable of reducing dependency on physical bank branches. This highlights the growing acceptance and reliance on digital platforms for financial transactions and service delivery.

*C. Perception towards Artificial Intelligence in BFSI*

Sl. No	Statements	Mean Score	Standard Deviation
3	AI-based chatbots enhance customer service quality in BFSI institutions.	4.12	0.71
4	Artificial intelligence improves accuracy in credit assessment and risk management.	4.26	0.65

Sl. No	Statements	Mean Score	Standard Deviation
5	AI plays an important role in fraud detection and prevention in BFSI.	4.31	0.69

Table 3: Mean Score Analysis – Perception towards Artificial Intelligence in the BFSI Sector

Table 3 indicates a positive perception among respondents towards the role of artificial intelligence in the BFSI sector. The mean scores for all statements exceed 4.00, suggesting strong agreement that AI enhances customer service, improves accuracy in credit and risk assessment, and strengthens fraud detection mechanisms.

These findings confirm that artificial intelligence is perceived as a key driver of efficiency and security in digitally disrupted BFSI services.

*D. Perception towards Blockchain Technology*

Sl. No	Statements	Mean Score	Standard Deviation
6	Blockchain technology improves transparency in financial transactions.	4.05	0.74
7	Blockchain enhances data security in BFSI services.	4.18	0.70
8	Blockchain reduces transaction time and operational cost in BFSI.	4.09	0.76

Table 4: Mean Score Analysis – Perception towards Blockchain Technology in the BFSI Sector

Table 4 shows that respondents have a favourable perception towards the application of blockchain technology in the BFSI sector. The mean scores, all above 4.00, indicate agreement that blockchain enhances transparency, improves data security, and reduces transaction time and cost. Although blockchain adoption is still at an emerging stage, respondents recognize its potential as a future-oriented technology capable of strengthening trust and efficiency in BFSI operations.

*E. Customer Experience and Future Trends of Digital Disruption*

Sl. No	Statements	Mean Score	Standard Deviation
9	Digital platforms have improved overall customer satisfaction in BFSI.	4.24	0.67
10	Personalized digital services increase customer trust in BFSI institutions.	4.19	0.69
11	Digital disruption will dominate the future of the BFSI sector.	4.36	0.64
12	Traditional banking models will decline due to digitalization.	4.08	0.73
13	AI and blockchain will create new employment opportunities in BFSI.	4.02	0.78
14	Customers are ready to adopt fully digital BFSI services.	4.21	0.70
15	Digital disruption is essential for the competitiveness of BFSI institutions.	4.39	0.61

Table 5: Mean Score Analysis – Customer Experience and Future Trends of Digital Disruption in the BFSI Sector

Table 5 indicates a strong positive perception among respondents regarding customer experience and future trends of digital disruption in the BFSI sector. The high mean scores suggest that respondents believe digital disruption will dominate the future of BFSI and is essential for maintaining competitiveness. The findings also reveal readiness among customers to adopt fully digital BFSI services, reflecting optimism towards technology-driven financial ecosystems

**X. FINDINGS OF THE STUDY**

- 1) The demographic analysis shows that most respondents belong to the economically active age group and hold undergraduate or postgraduate qualifications, indicating adequate exposure to digital BFSI services.
- 2) A majority of respondents actively use banking and digital payment services, reflecting the widespread adoption of digital platforms in the BFSI sector.
- 3) Respondents exhibit a strong positive perception towards digital banking, suggesting that digital services have significantly improved convenience and reduced reliance on physical bank branches.

- 4) The findings indicate favourable perceptions regarding the role of artificial intelligence in enhancing customer service, improving credit and risk assessment accuracy, and strengthening fraud detection in BFSI.
- 5) Respondents generally agree that blockchain technology enhances transparency, data security, and operational efficiency in BFSI services, despite its adoption still being at an emerging stage.
- 6) Digital platforms are perceived to have improved overall customer satisfaction and trust through personalized and technology-driven financial services.
- 7) A strong consensus exists among respondents that digital disruption will dominate the future of the BFSI sector and is essential for sustaining competitiveness.
- 8) Respondents' express readiness to adopt fully digital BFSI services and believe that technologies such as artificial intelligence and blockchain will generate new employment opportunities in the sector.

## XI. CONCLUSION

The BFSI sector is undergoing a profound transformation driven by digital disruption and the integration of advanced digital technologies. This study examined future trends of digital disruption in the BFSI sector with emphasis on digitalization, artificial intelligence, and blockchain through conceptual analysis supported by quantitative evidence. The findings indicate that digital banking has significantly improved service convenience, accessibility, and customer experience.

The positive perception of artificial intelligence highlights its role in enhancing customer service, strengthening fraud detection, and improving credit and risk assessment. Blockchain technology is similarly recognized for improving transparency, data security, and efficiency in financial transactions, thereby reinforcing trust in digital financial systems. The study also reveals strong customer readiness for fully digital financial services and consensus that digital disruption will dominate the future of the BFSI sector.

These results suggest that BFSI institutions must invest in advanced digital technologies and adopt agile, customer-centric business models to remain competitive. However, challenges related to cybersecurity, data privacy, regulatory compliance, and workforce skills require strategic planning and collaboration among industry stakeholders. Overall, effective adoption of artificial intelligence and blockchain can enhance operational efficiency, strengthen customer trust, and support sustainable and inclusive financial development.

## REFERENCES

- [1] Arner, D. W., Barberis, J., & Buckley, R. P. (2017). FinTech and RegTech in a nutshell, and the future in a sandbox. *Northwestern Journal of International Law & Business*, 37(3), 371–413.
- [2] Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. (2013). Digital business strategy: Toward a next generation of insights. *MIS Quarterly*, 37(2), 471–482.
- [3] Bussmann, N., Giudici, P., Marinelli, D., & Papenbrock, J. (2021). Explainable AI in credit risk management. *Computational Economics*, 57(1), 203–216.
- [4] Casino, F., Dasaklis, T. K., & Patsakis, C. (2019). A systematic literature review of blockchain-based applications: Current status, classification and open issues. *Telematics and Informatics*, 36, 55–81.
- [5] Christensen, C. M., Raynor, M. E., & McDonald, R. (2016). What is disruptive innovation? *Harvard Business Review*, 94(12), 44–53.
- [6] Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- [7] Downes, L., & Nunes, P. (2014). Big bang disruption. *Harvard Business Review*, 92(3), 44–56.
- [8] Dwivedi, Y. K., Hughes, L., Ismagilova, E., et al. (2021). Artificial intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research. *International Journal of Information Management*, 57, 102–110.
- [9] Floridi, L., Cowls, J., Beltrametti, M., et al. (2018). AI4People—An ethical framework for a good AI society. *Minds and Machines*, 28(4), 689–707.
- [10] Gomber, P., Koch, J. A., & Siering, M. (2018). Digital finance and FinTech: Current research and future research directions. *Journal of Business Economics*, 87(5), 537–580.
- [11] Gupta, A., & Xia, C. (2018). Impact of mobile banking on customer satisfaction. *Journal of Business and Industrial Marketing*, 33(4), 1–14.
- [12] Gupta, S., Yadav, A., & Varadarajan, R. (2019). How task-facilitative interactive tools foster buyers' trust in online retailers. *Journal of Retailing*, 95(3), 196–212.
- [13] Iansiti, M., & Lakhani, K. R. (2017). The truth about blockchain. *Harvard Business Review*, 95(1), 118–127.
- [14] Khan, B., Olanrewaju, R. F., Baba, A. M., Langoo, A. A., & Assad, S. (2021). A compendious study of cybersecurity risks in digital banking. *International Journal of Information Management*, 57, 102–115.
- [15] Kumar, V., Dixit, A., Javalgi, R. R. G., & Dass, M. (2020). Digital transformation of business-to-business marketing: Framework, value drivers, and future research directions. *Journal of Business Research*, 117, 1–11.
- [16] Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. White Paper. <https://bitcoin.org/bitcoin.pdf>
- [17] Russell, S., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson Education.
- [18] Tapscott, D., & Tapscott, A. (2017). *Blockchain revolution: How the technology behind bitcoin is changing money, business, and the world*. Penguin Random House.



- [19] Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157–178.
- [20] Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, 28(2), 118–144.
- [21] Westerman, G., Bonnet, D., & McAfee, A. (2014). *Leading digital: Turning technology into business transformation*. Harvard Business Review Press.
- [22] Yaga, D., Mell, P., Roby, N., & Scarfone, K. (2019). *Blockchain technology overview*. NIST Interagency/Internal Report (NISTIR) 8202. National Institute of Standards and Technology.



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