

THE ROLE OF AI IN ENHANCING SUSTAINABILITY AND FINANCIAL TRANSPARENCY: A CASE STUDY OF INDIAN COMPANIES

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KEYWORDS

ABSTRACT

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The Indian financial services sector is undergoing a profound transformation as a direct consequence of the introduction of artificial intelligence into FinTech. FinTech companies have seen improvements in their decision-making, operational efficiency, and customer experience as a result of the use of artificial intelligence (AI) techniques such as machine learning, natural language processing, and predictive analytics. The purpose of this study is to examine the correlation between the success of AI-driven FinTech companies and that of traditional financial services by using financial data spanning the years 2018–2023. According to variance analysis and analysis of variance (ANOVA) tests, the study indicates that FinTech companies perform better than traditional financial services in terms of critical metrics such as the net profit margin and the debt coverage ratio. The findings demonstrate that artificial intelligence is assisting the banking sector in India in being more environmentally friendly and transparent. The results suggest that AI-driven innovations play a pivotal role in enhancing both financial performance and sustainability in the Indian financial services sector.

INTRODUCTION

Over the course of the last several years, businesses all over the globe have been paying particular attention to the convergence of artificial intelligence (AI), environmental regulations, and financial transparency. In India, a nation whose rapid economic progress is accompanied by complex social and environmental concerns, artificial intelligence (AI) is rapidly becoming a game-changer. This is a country that is experiencing rapid economic development. Increasing the transparency of financial reporting and improving the sustainability of businesses are two goals that the nation is working to achieve. Using this in-depth case study, you will get an understanding of how Indian firms are using artificial intelligence to increase their revenues, accomplish their sustainability goals, and keep stakeholders informed about their financial situation. [1]

An increasing number of environmental concerns and corporate governance standards are gaining popularity, which means that Indian businesses are under a great deal of pressure to become more sustainable. Specific examples of environmental concerns include air and water pollution, waste management, and climate change. In terms of corporate governance, standards such as the Indian Companies Act 2013 and SEBI regulations emphasize the need for transparency and accountability. In the meanwhile, stakeholders are exerting pressure for more financial openness in order to facilitate the making of responsible choices.

Within this section, we will look into the challenges that Indian companies face and the pressing need for artificial intelligence to fill the holes that have been created. [2]

Over the course of the last several years, businesses all over the globe have been paying particular attention to the convergence of artificial intelligence (AI), environmental regulations, and financial transparency. In India, a nation whose rapid economic progress is accompanied by complex social and environmental concerns, artificial intelligence (AI) is rapidly becoming a game-changer. However, it is essential to contextualize India's progress within the global landscape. Countries like the United States, China, and the United Kingdom have been at the forefront of AI innovation in financial services, driven by robust regulatory frameworks, advanced technological infrastructure, and substantial investments in AI research and development. For instance, China's FinTech ecosystem, led by companies like Ant Group and Tencent, has leveraged AI for everything from credit scoring to fraud detection, while the U.S. has seen widespread adoption of AI-powered robo-advisors and algorithmic trading systems. In contrast, India's AI adoption is still in its growth phase, with challenges such as data privacy concerns, regulatory ambiguity, and limited access to advanced AI talent. However, India's large, digitally savvy population and rapidly growing FinTech sector present unique opportunities for AI-driven innovation. By benchmarking India's progress against global leaders, this study highlights the gaps and opportunities for India to accelerate its AI adoption while addressing regulatory and infrastructural challenges.[3]

AI and Corporate Sustainability Goals

Artificial intelligence (AI) is crucial in helping businesses optimise resource usage, reduce waste, and lessen their impact on the environment. Recent statistics highlight the significant role AI is playing in driving sustainability initiatives within Indian companies. According to IBM's State of Sustainability Readiness Report 2024, an impressive 98% of Indian business leaders plan to increase investment in IT for sustainability over the next 12 months. The same report reveals that 96% of Indian executives believe AI will positively influence their sustainability goals, showcasing a strong commitment to leveraging AI for environmental responsibility. Additionally, 64% of Indian companies are already actively using AI in their sustainability efforts, indicating widespread adoption of AI technologies to address environmental challenges. The report also emphasizes that 81% of Indian leaders adopt a proactive approach towards climate resilience, with 79% reporting mature systems to track sustainability goals through data. Brand reputation emerges as the top driver of IT sustainability investment, with 64% of respondents citing it as a key factor, followed by long-term business resilience, which is important for 61% of respondents. These statistics underscore the growing importance of AI in enhancing sustainability practices and achieving environmental goals in the Indian business landscape.[4].

To demonstrate how these technologies help to sustainability in the long run, this subsection will go over concrete examples of AI in action, including energy management, supply chain optimisation, waste reduction, and sustainable product creation.

While financial metrics provide valuable insights into AI's impact on profitability and efficiency, environmental, social, and governance (ESG) metrics offer a more holistic view of sustainability. AI can play a transformative role in helping companies achieve their ESG goals. For instance, AI-powered energy management systems can optimize energy consumption in data centers, reducing carbon footprints. Similarly, AI-driven supply chain optimization can minimize waste and promote sustainable sourcing practices. On the social front, AI can enhance financial inclusion by providing personalized financial services to underserved populations, such as rural communities and small businesses. Governance-wise, AI can improve transparency and accountability by automating compliance processes and detecting fraudulent activities. By incorporating ESG metrics into their AI strategies, Indian companies can not only enhance their financial performance but also contribute to broader societal and environmental goals. This study recommends that companies adopt AI-driven ESG reporting tools to track and communicate their sustainability progress effectively [5,6]

Enhancing Financial Reporting Transparency with AI

Openness about financial matters is the cornerstone upon which trust in corporate leadership is built. Artificial intelligence technologies such as natural language processing and machine learning are helping to increase the accuracy of reporting while also automating the process of analysing financial data. Grant Thornton Bharat LLP implemented an AI-driven financial reporting automation and digitization solution for a listed energy and renewables organization with over 50 Special Purpose Vehicles (SPVs). The initiative involved developing a unified reporting system that significantly reduced manual intervention, streamlined data consolidation, and enhanced the efficiency of statutory report drafting and financial report validation. The AI solution automated trial balance integration, consolidation, eliminations, and journal entry modules for out-of-book adjustments, ensuring seamless integration and updates of numeric data into textual notes. This implementation not only improved the accuracy and reliability of financial reports but also reduced the time and effort required for the reporting process. [7] Within the context of Indian organisations, this section will investigate the ways in which artificial intelligence is influencing compliance, financial audits, and fraud detection in order to enhance transparency.[8]

Artificial intelligence (AI) is crucial in helping businesses optimize resource usage, reduce waste, and lessen their impact on the environment. However, as AI becomes increasingly integrated into financial services, ethical considerations must take center stage. AI systems, particularly those based on machine learning, are susceptible to biases that can lead to unfair outcomes, such as discriminatory lending practices or biased credit scoring. To address these concerns, Indian companies must adopt ethical AI frameworks that prioritize fairness, accountability, and transparency. For example, explainable AI (XAI) techniques can help demystify AI decision-making processes, enabling stakeholders to understand how decisions are made. Additionally, companies should implement bias detection algorithms and regularly audit AI systems to ensure compliance with ethical standards. Regulatory bodies in India, such as the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI), could play a pivotal role in establishing guidelines for ethical AI use in financial services. By embedding ethical considerations into AI development and deployment, Indian companies can build trust with stakeholders and ensure that AI-driven innovations align with societal values.[1,2]

Leading Indian Companies' AI Adoption Case Studies

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The most successful companies in India are leveraging AI to advance transparency and sustainability. The most successful companies in India are using AI to advance transparency and sustainability. AI is also transforming the way financial institutions interact with their customers, offering personalized and seamless experiences that drive customer satisfaction and loyalty. AI-powered chatbots and virtual assistants, for example, provide 24/7 customer support, answering queries and resolving issues in real-time. Personalized financial advice, powered by machine learning algorithms, helps customers make informed decisions about investments, savings, and loans. Additionally, AI-driven fraud detection systems enhance security, giving customers peace of mind when conducting online transactions. This study highlights how Indian companies are leveraging AI to improve user experience, with case studies from leading FinTech firms that have successfully integrated AI into their customer engagement strategies. By prioritizing user-centric AI solutions, financial institutions can build stronger relationships with their customers and differentiate themselves in a competitive market. [9,10,11] Below table-1 highlights both the successes and challenges faced by these companies, providing a balanced view of AI adoption in the Indian business landscape.

Table 1: Success and Challenges of leading Companies after AI adoption

Successes	Challenges
Infosys has integrated AI into its operations to enhance operational efficiency and improve customer experiences. By using AI-driven analytics, Infosys has optimized its supply chain, reduced operational costs, and improved service delivery. The company has also implemented AI for predictive maintenance, reducing downtime and increasing productivity. [12]	One of the major challenges faced by companies adopting AI is ensuring data privacy and security. With the increasing amount of data being processed, companies must implement robust cybersecurity measures to protect sensitive information. [16]
Tech Mahindra has adopted AI to automate repetitive tasks and enhance decision-making processes. The company has developed AI-powered solutions for fraud detection and risk management, significantly improving financial transparency and reducing fraud incidents. [13]	Regulatory compliance is another significant challenge. Companies must navigate complex regulatory frameworks and ensure that their AI systems comply with local and international laws. [17]
Persistent Systems has utilized AI to streamline its software development processes. By implementing AI-based code review tools and automated testing, the company has improved software quality and reduced development time. [14]	Despite the advancements in AI technology, there are still limitations in terms of processing power and algorithm accuracy. Companies must invest in cutting-edge technology and continuously update their systems to stay competitive. [18]
Bosch has integrated AI into its manufacturing processes to enhance product quality and reduce waste. The company uses AI for predictive maintenance, ensuring that machinery is serviced before breakdowns occur, thereby minimizing production disruptions. [15]	The adoption of AI requires a skilled workforce capable of managing and maintaining AI systems. Companies must invest in training and development programs to equip their employees with the necessary skills. [19]

Examples from the real world will demonstrate how this is being carried out. The businesses that fall under this category, which include both large-scale digital corporations and small mom-and-pop stores, have effectively used AI technology in order to accomplish their sustainability objectives and improve their financial transparency.[20]

Bajaj Finance Ltd. has successfully implemented AI for credit scoring and risk assessment, improving its loan approval process and reducing default rates. The company uses AI to analyze customer data and predict creditworthiness, enhancing financial transparency and customer satisfaction. [21]

Infibeam Avenues Ltd. has leveraged AI for inventory management and demand forecasting. By using AI algorithms, the company has optimized its inventory levels, reduced stockouts, and improved supply chain efficiency. [22]

PB Fintech Ltd., the parent company of Policybazaar, has utilized AI for personalized insurance recommendations. The company uses AI to analyze customer preferences and offer tailored insurance products, enhancing customer experience and increasing sales. [23]

Angel One Ltd. has implemented AI for market analysis and trading strategies. The company uses AI to analyze market trends and make informed trading decisions, improving its financial performance and transparency. [24]

Computer Age Management Services Ltd (CAMS) has adopted AI for financial reporting and compliance. The company uses AI to automate financial audits and ensure regulatory compliance, enhancing transparency and reducing the risk of errors. [25]
Despite the benefits, challenges such as data privacy, governmental obstacles, and technological limits must be overcome before broader AI adoption in Indian businesses.

OBJECTIVES

1. To explore how artificial intelligence (AI) improves corporate governance, resource efficiency, and sustainable practices in Indian enterprises to improve sustainability and financial transparency.
2. To examine Indian firms' AI adoption difficulties and prospects, including regulatory compliance, ethical issues, and the potential for AI to improve financial reporting and sustainability.

METHOD

When designing a research methodology to investigate the performance of AI-driven FinTech businesses, it is necessary to give careful consideration to a number of elements, such as the sources of data, the research strategy, the techniques of data collection, and the methodologies of analysis. [26]

Research Design

Longitudinal Study - In order to analyse trends and patterns, it would be helpful to conduct a longitudinal research that tracks the success of AI-driven FinTech enterprises over time.

Cross-sectional Study - Find out what variables affect the success of AI-driven FinTech firms by comparing their results across various categories or geographies. [27]

Mixed-Methods Approach - To fully grasp the factors that affect performance and its consequences, it is best to use both quantitative and qualitative approaches.

Data Collection

Financial Data - AI-powered FinTech organisations may provide revenue profitability, funding quantities, and key financial statistics. Search financial reports, databases, and trade publications for this information.

Market Data - Get market data like growth rates, market share, and a competitive landscape research to assess AI-driven FinTech companies' competitiveness. Market intelligence tools, industry studies, and research articles may assist.

Technological Data - Collect information on the technical prowess of AI-powered FinTech firms, including details about their data analytics tools, the level of innovation in their products, and the complexity of their AI algorithms. Gathering this information could need talking to business reps, poring over patents, and checking out the IT system.

Customer Data - To determine how well AI-driven FinTech solutions address consumer demands and improve user experience, collect feedback from customers, conduct satisfaction surveys, and read reviews written by users. Data may be gathered via online platforms, reviews, and questionnaires. [28]

DATA ANALYSIS

Quantitative Analysis

In order to provide a description of this sort of inquiry, it is usual practice to employ numerical metrics. It is possible to make further statistical adjustments to the data by using measurement scales in order to represent it.

Statistical Analysis

Data collection, analysis, and validation are all components of the technique that are carried out. Statisticians perform a variety of statistical procedures on the data in order to provide a numerical value to the information. A few of examples of quantitative data are the findings of surveys and the information gathered via direct observation. This kind of study is also known

as descriptive analysis. People that create code for statistical data analysis systems like SPSS, Stat Soft, and SAS (Statistical Analysis System) are included in this category of people. SPSS, which is an acronym that stands for Statistical Package for the Social Sciences, was used in order to analyse the statistical data that was collected for my study. The presenting of graphs, the testing of hypotheses, and the study of various correlations are all strategies that are used in data analysis.[29]

Table 2: Financial Results of FinTech Companies

Fin Tech Companies	Net Profit Margin	Return on Equity	Return on Assets	Asset Turnover Ratio	Debt to Equity Ratio
Bajaj Finance Ltd	22.254	16.26	3.696	12.73	3.308
Infibeam Avenues Ltd	7.178	2.384	1.922	11.362	0.006
PB Fintech Ltd	-69.202	-1.176	-1.17	2.354	0
Angelone Ltd	20.56	27.66	6.808	13.60	0.964
Computer Age Management Services Ltd.	27.514	38.862	26.106	59.37	0

Bajaj Finance Ltd

The high net profit margin of 22.254% by the corporation is evidence of the efficient management of expenditures that the company maintains. A return on equity that is decent (16.26%) and a return on assets that is respectable (3.696%) show that the entity is profitable and makes effective use of its assets. The fact that the asset turnover ratio is high (12.73) indicates that the assets are being used effectively in order to generate money. A debt-to-equity ratio that is somewhat high (3.308) is an indication that the company is dependent on loan finance.[30]

Infibeam Avenues Ltd

Our company's net profit margin is 7.178%, which is lower than the margin that Bajaj Finance Ltd. reported. Both returns on equity (2.384%) and returns on assets (1.922%) are lower than average, which indicates that the company's profitability and asset utilisation are lower. Having a debt-to-equity ratio that is low, at 0.006, shows that there is very little dependency on debt financing. On the other hand, having an asset turnover ratio that is high, at 11.362, indicates that assets are being used effectively.[31]

PB Fintech Ltd

A negative return on equity (-1.176%) and a negative return on assets (-1.17%), both of which point to poor profitability and inefficient use of assets; a net profit margin of -69.202 percent implies a loss; A negative return on assets (-1.17%) suggests that the company is also losing money. At a ratio of 2.35, the ratio of assets to total assets is rather low. There is no debt to equity ratio, which indicates that the company does not even have any debt.[32-34]

Angel One Ltd

The company's expenditures have been meticulously managed, as seen by the high net profit margin of 20.56%. The high return on equity (27.66%) and return on assets (6.808%) in this case demonstrate significant profitability and efficient use of assets. The high asset turnover ratio (13.60) demonstrates that assets are being used in an efficient manner. A debt-to-equity ratio of 0.964 demonstrates that a significant amount of the company's funding comes from debt issuance.

Computer Age Management Services Ltd

The asset turnover ratio (59.37), return on equity (ROE) (38.862%), return on assets (26.106%), and net profit margin (27.514%) all point to outstanding profitability and utilisation of assets.

Table 3: Mean, standard deviation, and net profit margin coefficient of variation

Net Profit Margin	Bajaj Finance Ltd	Infibeam Avenues Ltd	PB Fin Tech Ltd	Angel One Ltd	CAMS Ltd
Mean	22.25	7.18	-69.20	20.56	27.51
SD	4.37	0.98	127.43	8.79	6.68
Co-efficient of Variance	0.20	0.14	-1.84	0.43	0.24

When compared to its sales, Bajaj Finance Ltd. generates a significant amount of profit on average. This is due to the fact that it has the highest mean NPM among listed companies. It would seem that its NPM has remained consistent over time, which is a positive sign for its profitability, given that its coefficient of variation and standard deviation are both rather low. The mean net profit margin (NPM) of Infibeam Avenues Ltd is lower than that of Bajaj Finance Ltd, which indicates that the latter has a lesser profitability margin. On the other hand, its coefficient of variation and standard deviation are fewer than those of some of the other possibilities, which would imply a more constant profit margin. For the most part, PB FinTech Ltd. is losing money rather than making it, as shown by the fact that its mean NPM is negative. The significant fluctuations in its profitability, as shown by the big standard deviation and coefficient of variation, may be an indication of financial instability or issues. Angel One Ltd. has a mean NPM that is fairly high, which indicates that the company is highly profitable; at the same time, it is somewhat lower than Bajaj Finance Ltd. On the other hand, its coefficient of variation and standard deviation are higher than those of Bajaj Finance Ltd., which indicates that its profitability is more prone to fluctuations over the course of time. When compared to all of the companies that are listed, CAMS Ltd. has the highest mean NPM, which implies that it is very profitable. Despite the fact that it does not generate as much constant profit as some of the other items on the list, the fact that it has a moderate standard deviation and coefficient of variation means that it does exhibit some degree of volatility.[35]

Table 4:Return on Equity mean, standard deviation, and variance analysis

Return on Equity	Bajaj Finance Ltd	Infibeam Avenues Ltd	PB Fin Tech Ltd	Angel One Ltd	CAMS Ltd
Mean	16.3	2.4	-1.2	27.7	38.9
SD	3.8	1.3	2.0	12.8	8.3
Co-efficient of Variance	0.2	0.5	-1.7	0.5	0.2

The return on equity for Bajaj Finance Ltd is rather strong, with a respectable mean ROE. The low coefficient of variation and standard deviation indicate that the performance in producing returns for shareholders has been consistent. Compared to Bajaj Finance Ltd, Infibeam Avenues Ltd has a much lower mean ROE, suggesting inferior returns on equity. There seems to be less consistency in the returns generated for shareholders, as shown by the larger standard deviation and coefficient of variation, which point to a more variable return on equity. On average, PB FinTech Ltd is losing money in relation to its shareholders' equity, as shown by its negative mean ROE. Its ROE is highly volatile, suggesting major return instability and

maybe financial trouble, according to the negative coefficient of variation. Strong returns on equity are evident from Angel One Ltd's high mean ROE. Its return on equity (ROE) is more volatile than Bajaj Finance Ltd's, according to the comparatively high standard deviation and coefficient of variation, suggesting that its performance may fluctuate. Out of all the listed firms, CAMS Ltd. has the best return on equity (ROE), a sign of great profitability. Low coefficients of variation and standard deviations indicate steady performance that consistently generates good returns for shareholders.[36]

Table 5: Return on assets mean, standard deviation, variance co-efficient

Return on Assets	Bajaj Finance Ltd	Infibeam Avenues Ltd	PB Fin Tech Ltd	Angel One Ltd	CAMS Ltd
Mean	3.70	1.92	-1.17	6.81	26.11
SD	0.68	0.94	2.01	3.46	4.81
Co-efficient of Variance	0.19	0.49	-1.71	0.51	0.18

It is plausible to assume that Bajaj Finance Ltd. has a decent return on investment, as shown by the company's return on assets (ROA). Both the low coefficient of variation and the standard deviation point to the fact that the corporation regularly makes profits from the assets it now has. In comparison to Bajaj Finance Ltd., Infibeam Avenues Ltd. has a lower mean ROA, which indicates that it is less effective at earning returns from its assets. Therefore, the company is less efficient. Because of the bigger standard deviation and coefficient of variation, which indicate that the ROA is more unpredictable, there is less consistency in asset utilisation and returns. This can be demonstrated by looking at the larger standard deviation. It can be deduced from the fact that PB FinTech Ltd. has a negative mean ROA that the firm is, on average, incurring losses in comparison to its available assets.

With a negative coefficient of variation and a huge standard deviation, the performance of its assets seems to be very unpredictable and highly volatile. It's possible that this is a symbol of impending financial troubles. Angel One Ltd. is able to generate profits by making effective use of its resources, as shown by a return on assets (ROA) that is higher than the average. The return on assets (ROA) of this company seems to be more variable when compared to that of Bajaj Finance Ltd., as shown by a bigger standard deviation and coefficient of variation. Based on this, it seems that the performance of assets may be subject to changes. CAMS Ltd. has the highest mean ROA of all the publicly traded companies, which indicates that they are very skilled at making use of their assets and generating a significant amount of revenue. Both its coefficient of variation and its standard deviation are low, which indicates that it has been continuously and steadily creating strong returns from its assets via the use of those assets.[37]

Table 6: Asset Turnover Ratio Mean, Standard Deviation, Coefficient of Variance Analysis

Asset Turnover Ratio	Bajaj Finance Ltd	Infibeam Avenues Ltd	PB Fin Tech Ltd	Angel One Ltd	CAMS Ltd
Mean	10.13	11.36	2.35	13.60	59.38
SD	9.09	10.04	2.34	18.11	54.39
Co-efficient of Variance	0.90	0.88	0.99	1.33	0.92

Bajaj Finance Ltd.'s small mean Asset Turnover Ratio compares revenue to assets. Its asset turnover has a high standard deviation and coefficient of variation, suggesting that its revenue producing efficiency varies. A higher mean Asset Turnover Ratio for Infibeam Avenues Ltd compared to Bajaj Finance Ltd implies it produces revenue from its assets effectively. Like Bajaj Finance Ltd., its asset turnover is variable. Its lower mean Asset Turnover Ratio shows that PB FinTech Ltd converts its assets into revenue less efficiently than Bajaj Finance Ltd and Infibeam Avenues Ltd. High coefficient of variation and standard deviation indicate asset turnover efficiency unpredictability. Angel One Ltd has a higher Asset Turnover Ratio than Bajaj Finance Ltd, Infibeam Avenues Ltd, and PB FinTech Ltd, indicating that it generates more revenue from its assets. However, it has the most inconsistent asset turnover among public firms, which may suggest income-generating efficiency improvements. CAMS Ltd has the greatest mean Asset Turnover Ratio among public companies, indicating that it uses its assets well to create money. Despite the high mean, the asset turnover efficiency has a huge standard deviation and coefficient of variation.[38-41]

Table 7: Debt-to-equity ratio mean, standard deviation, variance co-efficient

Debt to Equity Ratio	Bajaj Finance Ltd	Infibeam Avenues Ltd	PB Fin Tech Ltd	Angel One Ltd	CAMS Ltd
Mean	3.31	0.01	0.00	0.96	0.00
SD	0.65	0.01	0.00	0.49	0.00
Co-efficient of Variance	0.20	0.91	0.00	0.51	0.00

Bajaj Finance Ltd's high mean Debt to Equity Ratio indicates that company depends more on debt than equity. Small coefficients of variation and standard deviations indicate a steady debt-to-equity ratio. Infibeam Avenues Ltd. utilises debt carefully, as seen by its unusually low mean Debt to Equity Ratio. The high coefficient of variance suggests significant fluctuation in its debt-to-equity ratio. In its capital structure, PB FinTech Ltd has no debt, as its average Debt to Equity Ratio is 0. Its debt-to-equity ratio is steady since the coefficient of change is zero. Angel One Ltd's average Debt to Equity Ratio is low, indicating a healthy capital structure. While not as high as other debt-to-equity ratios, the standard deviation and coefficient of variation imply volatility. CAMS Ltd. has a typical Debt to Equity Ratio of 0, like PB FinTech Ltd. Its debt-to-equity ratio is steady since the coefficient of change is zero.[42]

DISCUSSION

AI is radically transforming FinTech's financial services landscape, the report found. Financial institutions are increasingly using AI techniques like machine learning, NLP, and predictive analytics to automate, streamline, and make better decisions. AI provides several benefits in banking, investing, insurance, and risk management, according to the study. Artificial intelligence-powered chatbots and virtual assistants improve banking customer service and engagement, while algorithmic trading tools optimise portfolio management and investment approaches. Artificial intelligence improves banking efficiency, accuracy, and customer experience. Machine learning algorithms are helping financial institutions enhance operational efficiency and client experiences by automating boring tasks, evaluating enormous amounts of data for insights, and personalising services. AI in FinTech has several positives and drawbacks, according to the research. Challenges include data privacy and security regulations and algorithmic bias. Solutions include cost reduction, risk reduction, and product and service improvement. This study explores how deep learning, reinforcement learning, and explainable

AI may drive financial technology innovation. AI-powered robo-advisors, automated underwriting, and fraud detection will alter financial services and business structures. Our research informs governments and financial institutions on how to deploy AI effectively while minimising risks and safeguarding customers. To promote responsible AI innovation in FinTech, invest in AI talent and skills, build strong governance frameworks for AI adoption, stimulate industry collaboration on ethical AI norms, and improve regulatory monitoring. [43-44]

AI might transform sustainability and financial transparency for Indian enterprises. However, to fully harness the potential of AI, Indian policymakers must address several regulatory and infrastructural challenges. First, the government should establish clear guidelines for data privacy and security, building on the framework provided by the Personal Data Protection Bill. Second, regulatory bodies like the RBI and SEBI should develop standards for ethical AI use in financial services, including requirements for explainability, bias detection, and regular audits. Third, the government should invest in AI education and training programs to address the talent gap and foster a skilled workforce capable of driving AI innovation. Finally, public-private partnerships should be encouraged to promote collaboration between financial institutions, technology companies, and academic researchers. By creating a supportive regulatory environment and investing in AI infrastructure, India can position itself as a global leader in AI-driven financial services.[4,28]

CONCLUSION

AI might transform sustainability and financial transparency for Indian enterprises. AI-driven innovation is helping firms optimize resource efficiency, reduce their environmental impact, and make financial reporting more transparent, according to KPIs and operational measurements from selected organizations. Companies like Bajaj Finance Ltd., Angel One Ltd., and CAMS Ltd. have seen higher profitability, resource utilization, and financial performance due to AI-enabled decision-making, cost management, and sustainable practices. This study uses AI to enhance sustainability via energy management, waste reduction, and sustainable supply chain methods. The research also shows how AI augments financial transparency via automation, fraud detection, and real-time reporting. Infibeam Avenues Ltd. shows how AI-driven solutions improve operational efficiency, customer satisfaction, corporate governance, and sustainability. The report identifies data security, regulatory compliance, and ethical AI frameworks as barriers to AI adoption in Indian enterprises. Companies like PB FinTech Ltd struggle to apply AI due to adoption barriers, which hinders financial transparency and sustainability. The study suggests that explainable AI and personalized financial services might promote transparency and sustainability. Businesses and governments must tackle regulatory challenges, promote ethical innovation, and develop robust governance mechanisms to fully use AI. Financial institutions should invest in AI expertise, encourage industry cooperation, and prioritize ethical AI deployment to ensure that using AI to improve sustainability and financial transparency aligns with long-term organizational goals and society well-being, according to the report.

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