ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

Impact of Technology on the Financial Sector: Opportunities, Challenges, and Implications for Sustainable Development Goal 8 in India

Utkarsh Sharma[1]

[1]Neev Academy, Bangalore

Publication Date: 2025/09/06

Abstract: The prime focus of the present study is to explore the socio-economic implications of AI integration in the context of the Indian financial sector. It will also aim to identify the various opportunities and threats associated with this integration and particularly focus on the sustainable development goals of the SDG 8: Decent Work and Economic Growth. The primary objective is, therefore, to employ a purposive sample of 52 financial executives with complementary roles and formal background for the analysis of the level of acceptance of AI integration, what it means in terms of employment possibilities (positive and negative), the deliberate slow process of embracing AI, and the interventions that would have to be implemented to realize SDG 8 thanks to AI. It is observed that many of the respondents hold the view that, while there are some aspects of AI that can lead AI to a democratization, breaking up and streamlining the structure of financial markets and preventing the behavior of a few players, it is also true that modernization in capitalism is rather a power-based exercise. Respondent were fairly optimistic about the potential od AI to bring about inclusion and efficiencies. Costs have been associated with such optimism with respondents observing that various factors such as 'algorithmic bias', aspects related to 'transparency' as well as, 'data security' raises concern, not leaving the specter of jobs being eradicated due to automation either. Even though many of the participants stand in positive light of the possibilities of AI towards the achievement of SDG8, a number of participants envision there will be reduced incorporation of this sector in the society's overall economic activities within the next few years. Clearly, this development calls for a purposeful and efficient policy formulation involving the government, banks, and education sectors in order to mitigate the disadvantages of AI technology and enhance the benefits of it, so that there is a secure and fair AI-led financial sector development, which will promote the development of the poor and high-growth and encourage grievance-free economic growth in India.

Keywords: *Artificial Intelligence, Financial Sector, India, Sustainable Development Goal 8, Employment, Ethical Considerations.*

How to Cite: Utkarsh Sharma (2025) Impact of Technology on the Financial Sector: Opportunities, Challenges, and Implications for Sustainable Development Goal 8 in India. *International Journal of Innovative Science and Research Technology*, 10 (9), 8-17. https://doi.org/10.38124/ijisrt/25sep110

I. INTRODUCTION

There is a forceful transformation of the Indian financial system in which AI holds the main pillar of support. This transformation is beyond mere digital conversion; it goes straight into the very operations of finance, interfacing operations with customers, and respective strategic decisions. This article ventures into an in-depth study of the ascending influence of technology in shaping the Indian financial landscape, especially with regard to the multi-faceted effects of AI, and draws critical implications for Sustainable Development Goal (SDG) 8: Decent Work and Economic Growth.

The survey data lays out a convincing case for the transformative effects of AI in every facet of finance. Respondents consistently name AI's exemplary capabilities in augmenting anti-fraud systems, refining risk management procedures, creating a customer service revolution through AI chatbots, and the accurate recommendation of financial products that were never possible before. AI, with its extraordinary power to scan through massive datasets at breathtaking speeds, and with unfailing accuracy compared to the best experts, enables financial institutions to piece together disparate pieces of data into complex patterns, foresee their metamorphosis into new forms, and prepare contradictions to market trends through more data-driven and, inevitably, better decisions. Furthermore, AI is fostering a new generation of financial products and services that cater to the ever-specific demands of Indian consumers; these include AI-driven robo-advisors that bring investment advice to the masses and lending platforms that provide personalized lending services for various credit profiles. A striking takeaway from the data, though, is that all such

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

good works will be made real only when marginalized sections in far-flung villages get their deserved stake of access to technology and digital literacy. This, therefore, is a clarion call to strictly bridge this digital gap and take AI to every heart in Indian society.

A recurring theme in the survey responses is the complex and evolving relationship technology has with employment in the financial sector. While the fear of AI-based automation displacing certain jobs involving repetitive tasks is well stated, respondents also affirm the simultaneous emergence of entirely new types of jobs, requiring specialized skills in data science, AI development, cybersecurity, and regulatory compliance. This transition demands a paradigm shift in workforce development toward a mindset that preemptively allows equipping a set of individuals with the required skills and knowledge to be able to accountantful in an AI-augmented professional landscape. The inference here is that investments in upskilling and reskilling are not only desirable but also essential to ensure a smooth transition and thereby reduce social and economic shocks. The survey additionally suggests that, in cooperation with training institutions, the financial sector need to work actively in developing curricula that are pertinent to the new AI economy.

From an exhaustive further study into technology adoption, survey data highlights several ethical concerns in AI deployment in finance. The respondents from the survey repeatedly stressed the need for sound ethical principles to be developed so that issues like algorithmic bias, data privacy, and data security can be adequately addressed. Algorithmic bias occurs through imperfect algorithms or unfavorable training data and thus could effectively discriminate in lending, insurance, and other essential financial services. Respondents from the survey expressed concern that this could result in a situation where financially marginalized communities would suffer disproportionate disadvantages and exacerbate existing inequalities. Data privacy becomes another major concern, in light of the increased collection and processing of vast and extremely sensitive volumes of personal and financial data by AI systems. The inference is that hard data protection regulations and transparent data governance practices are of prime importance in fostering greater trust in and preserving the integrity of the financial system. Yet another concern that necessitates cybersecurity must be given top priority by financial institutions is the constant threat of cyberattacks whenever they try to access financial data for their own advantage or simply to cause harm.

While AI might appear to be just one more fancy technology, it is really a change agent that is fundamentally changing and shaping the Indian financial space. It therefore holds great promises for presenting higher efficiency, creation of a better customer experience, and projecting innovations. Having a glance at the actual setting, achieving this potential seems to require a united effort that takes into consideration the economic, social, and ethical implications of adopting AI. The survey thus pointed out that policymakers, financial institutions, and educational institutions must work hand in hand in order to develop policies, strategies, and best practices that would make AI an opportunity for supporting the current inclusive growth good jobs, and equitable and sustainable financial future of India.

II. REVIEW OF LITERATURE

Agarwal and Ghosh (2024) present an original empirical investigation of AI adoption in financial services and financial inclusion levels across emerging economies in their paper, "Artificial Intelligence and Financial Inclusion: Evidence from Emerging Economies," published in the Journal of Development Economics. Employing panel data from 2015 through 2022, and grounded on theories of information asymmetry and transaction costs, the authors probe into whether AI-fueled products such as mobile banking and micro-lending platforms do their part in fostering inclusion, especially for those who were previously outside the formal banking system. The authors record strong evidence of positive correlation between AI adoption and financial inclusion, noting however that the strength of this correlation depends upon internet penetration and digital literacy, keeping the digital divide as a factor. The study also pinpoints a U-shaped curve that relates financial regulation intensity to AI impact, thereby insinuating that under-regulation as well as over-regulation acts as impediments. The authors appreciate the problems of causality and data availability and use their study to substantiate the claim that AI can be very instrumental in driving financial inclusion through reduction in information asymmetry and transaction costs. The study urges policymakers to make investment in digital infrastructure and in-fitting regulatory frameworks so as to enhance the contribution of AI towards SDG 8 through increased access to financial services.

Sharma and Kumar (2023) explore the impact of AI on employment in the Indian banking sector with a mixed-methods analysis. The authors paint a complex picture by combining case studies of five major banks with a large-scale employee survey. While common activities are being made obsolete by AI, such as data entry and transaction processing, the AI-related jobs are actually being created for data analysis, AI maintenance, and even customer service work requiring more soft skills. The takeaway must be: to actively reskill/upskill the workforce to have relevant skills in the changing job-market, because adaptation on the human level remain key in an AI-augmented environment.

Banerjee and Chatterjee (2022) made a case that there is indeed algorithmic bias in credit-scoring models used by fintech lending platforms in India. Using loan application and repayment data, the authors provided evidence that certain algorithms discriminate against marginalized communities like women and lower-income groups whose main sources of income are small-scale agriculture and manual labor. Such discrimination emanates from training data that is skewed and from the opacity of the decision-making process employed by the algorithmic models.

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

Therefore, the authors recommended that regulators institute much stricter oversight while developing fairness-aware AI algorithms to help guarantee equal access to credit and deny the propagation of discriminatory lending practices.

In their 2024 research work titled "Fintech Regulation and Innovation: A Comparative Analysis of Sandbox Approaches in India and Singapore," published in the Journal of Financial Regulation and Compliance, authors Lee J. and Gupta V. have done some research on the regulatory sandbox approaches to fintech and AI in finance in India and Singapore. Based on the effectiveness of these sandboxes at innovation creation but with mitigation of risks, they argue that a good sandbox should allow for experimentation and learning that could aid the growing fintech sector. However, they stress the importance of the existence of clear exit strategies and a transparent regulatory framework to ensure that the sector develops sustainably in this ever-changing area.

Singh and Reddy's "Cybersecurity in Indian Financial Institutions: A Risk Assessment Framework" is timely and pertinent as it examines the cybersecurity landscape faced by Indian financial institutions now that they are increasingly adopting AI and cloud services. The article elaborates on a risk assessment framework developed for this special context and, in the process, highlights key vulnerabilities and threats that include phishing attacks, ransomware, and data breach activities that take advantage of the complex new technological integrations. The authors assert that a multi-layer approach to security is required, suggesting a risk-based set of security controls that give precedence to assets and vulnerabilities deemed critical. They also stress training programs for employees to promote awareness on cybersecurity threats and develop personnel capacity to detect and respond to attacks. Lastly, incident response planning must be crystal clear such that financial institutions are able to effectively contain and counter the adverse impact of any cyberattack that succeeds in compromising their systems, thus safeguarding sensitive data and maintaining operational resilience. The research acts as a critical resource to help financial institutions shore up their cybersecurity in face of changing digital risks.

The International Journal of Bank Marketing published an article in 2022 by Patel and Joshi, which among other things, identifies the key drivers for the utilization and satisfaction of AI chatbots among various Indian banks. According to the work, the users decide the usefulness and receive satisfaction on the effectiveness of the chatbot in solving issues, how easy or difficult it is in using the technology and how much they believe the chatbot responds with right answers and how much they can understand its verbal style. It recommends that the banks continuously aim at improving the accuracy and responsiveness of chatbots when answering questions of customers as well as providing highly customized and culturally-oriented user-friendly experience. It has been pointed out that these advancements are necessary that these demands for significant modifications in these banking services will be met along with an increase in customer support in this direction. Finally, the research mentions the need for adoption of marketing and communication strategies that will draw the customers' attention to these factors.

The article written by Verma and Kapoor, published by the Journal of Emerging Market Finance (2024), examines the evaluation of predictive analytics and algorithmic trading strategies in the stock market of India. In their work, the possibilities of AI technology enabling machines to analyze the stock trends, place and execute trades constituting investment strategies hands free are highlighted, enabling practice of the active trading rules incurring on average more profit than in case of the static strategies. Nevertheless, despite the considerable benefits arising from the development of AI in financial markets, the dr. still, despite darkening the prevailing optimism with one exception: in all their difficulty such trading systems come with increased risks. Critics therefore would say that these assessments are very severe. This is because the complexity and risks of such methodologies are quite high. Such methodologies is the reason why it is so essential for the authors to communicate: the importance of performing thorough and periodic model validations on a significant level especially for these AI systems, whose vulnerabilities have a tendency to cause considerable financial losses. Given these results, this research suggests the development of strategies that can specifically address risk posed on due to the use of artificial intelligence in trading.

III. RESEARCH METHODOLOGY

This article focuses on reviewing how technology is shaping and revolutionizing the functioning of the financial sector in India, with a particular reference to AI, and its impact on Sustainable Development Goal 8: Decent Work and Economic Growth (SDG 8).

➢ *Objectives*

In general, the aim of the research was to explore the repercussions AI has on the Indian financial sector. The objectives of the study were also:

- Assessing the attitudes towards AI adoption and its prospective implications in the Indian financial services.
- Looking into the effects of AI on jobs in the sector – both positives of job creation and negatives of job losses.
- Analyzing the inhibitors and enablers that lie in the way of implementing AI in a constructive and ethically balanced manner in a banking sector.
- Delivering the monetary and non-monetary rules of ensuring that work remains, and the economy blooming, even in today's age of artificial intelligence, specifically the relevant constraints and motivations to do so in principle.

➢ *Research Design*

A detailed survey research design was used, and professionals who were working in the financial sector of India and who were a part of the Indian financial sector in

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

one way or the other formed the population of the inquiry. This design allowed for the easy interrogation of the common adopted policy, views rules and regulations towards the AI.

➢ *Sampling Technique*

The data collection approach which was used was the purely non-random type of purposive sample. The selection of the informants hinged on their roles at their places of work, years of service, as well as their skill in the subject area of the study of the Indian financial sector and AI. This, therefore, means that the selection ensured that only proper persons capable of giving insightful answers were picked for the study's sample. Given that the aspect of the study related to professionals, the application of simple random sampling could not be useful in this research. The usefulness of some knowledge caused the utilization of purposive sampling instead of simple random sampling.

➢ *Sample Size and Characteristics*

The study eventually incorporated a total of fifty-three respondents. This was not a representative sample as pertains the entire denomination though it was large enough to show varying viewpoints hence pin-pointing the major issues in the subject area. They included the different functions such as.

- Holding top designations: Director of IT, Senior Vice President, Zonal Head, Managing Director, Credit Analyst and Sustainable Research Analyst.
- Holding roles: technical, managerial, client-facing and analytical roles.
- Being highly ranked: Well over 80% had more than 15 years of experience in the profession.

A structured online questionnaire was used to collect data that was basically, divided into the two – closed-ended and open-ended questions. Test organization and wording took place for financial consultants. Those participating were assisting in data range which included their networks and the internet. It was necessary to ask for their permission in other to study them for a particular period. Additional research using this short-term research design is continuous until data was obtained from the targeted areas.

➢ *Data Scrutiny and Analysis*

After the data collection process, it was decided to follow up a well-planned checking process.

- Quantitative Analysis: Responses to the closed-ended questions were worked out and it was used to form strategically functional comments if necessary.
- Qualitative Analysis: List of pros and cons in managing marketing belonging to the Indian companies solely. This was the third part of the Y depth and it equally contained the following activities:

All the opened ended responses were screened for related content when they had already been collected. A certain way to help consumers makes their choices is developed and then subjected to careful examination.

The codification method was improved during a series of collegial consultations in the writing group.

The data were categorized in order for themes and patterns to emerge that help to address the study objectives.

Combined analysis of quantitative and qualitative data helped in explaining fully the myriads of possibilities that are related to the subject of the use of AI in the Indian financial firms.

➢ *Major Study Analysis & Findings*

This table summarizes the respondents' self-reported level of familiarity with the integration of AI in the financial sector, using a Likert scale.

Table 1 Familiarity with AI Integration in the Financial Sector

Familiarity Level	Frequency	Percentage
1 (Not at all familiar)	2	3.8%
2	5	9.4%
3	15	28.3%
4	20	37.7%
5 (Very familiar)	11	20.8%
Total	53	100.0%

The above table basically addresses the extent to which the respondents know about Artificial Intelligence (AI) and more specifically the use of AI in financial services. The survey conveys that there is a fair extent of familiarization within the class of the respondents, indicating that majority of the respondents know what the concept of AI is all about. Notably, the study notes that 37.7% of the respondents managed to rank "4" on the scale which connotes that almost all the people in the group know how AI is used in the financial industry. Another 20.8% of the respondents answered "Very familiar" (level 5), meaning that they are experts. However, it is crucial to mention that a total of 31.7% were somewhat familiar with the AI concept and some went even lower "3" and "below". This fact indicates that even when there is a good deal of knowledge regarding the implementation of AI in finance, there is also a section of the audience who has lesser knowledge but more advanced than introductory.

There is a great need for more educational and awareness improvement programs in the Indian financial services sector to provide a broad and deep understanding

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

and application of AI technologies. While many individuals will be interacting with AI and comprehending its effects, some may require specific training and resources to enable them improve their understanding and use of these technologies. In other words, this statement predicts that the introduction of AI in more complicated applications would not be easy if the majority of the employees had no strong fundamental knowledge of AI.

- *Description:* This table shows the distribution of respondents' estimates of the percentage of Indian financial institutions that have adopted AI technologies.

Table 2 Perceived Percentage of Indian Financial Institutions Adopting AI Technologies

Percentage Range	Frequency	Percentage
0-20%	18	34.0%
21-40%	22	41.5%
41-60%	9	17.0%
61-80%	3	5.7%
81-100%	1	1.9%
Total	53	100.0%

Table number 02 on the overall Terms and Conditions displays how the results collected on the percentage of Indian banks use of Artificial Intelligence (AI) and the perception of a conservative Procurement of Artificial Intelligence (AI) systems. Indeed, the information may account for why there may be a localized view where the degree of AI penetration in the country is considered low. The highest percentage of the respondents, now 41.5% of the sample believed that AI is between 21-40% already being used by the Indian financial institutions. Also, there is a second group of majority (34.0%) that claims to believe that the rate of AI adoption is in fact lower than the stated because the use is within 0-20%. However, there are people who attribute a high translation of the term as 17.0% of them thought that 41-60% of the institutions are edged on AI. And in a small population, there are 5.7% and 1.9% of them who claim 61-80% and “81-100%” of the levels of AI in the different institutions respectively. Given the aforementioned point of view, it comes as no surprise therefore, that, despite the immense attention and resources allocated to artificial intelligence in the context of the Indian financial sector, the extent of ordinary application has not increased significantly. Every respondent expressed a positive view towards the role played by AI yet this has not been fully picked up to form a radical shift since a number of organizations remain indifferent to integration of these advancements. Such an outlook can be a manifestation of several factors such as the resistance to change due to the historic nature of implementing AI algorithms on current systems; lifting of expectations about fulfileld promise of AI arising from the concerns of rigor engaged); the unavailability of skilled people that are able to see the work done; the lack of a clear policy from the government in this regard and so on. The tone-less figures are illustrative that there is significant room for reinforcement of AI technologies in the financial sector in India but this is also al it illustrates because the current state of the art is held back by a number of obstacles which need to be removed first. Thus ‘mutiltaks’ in this context can be a case which shows that the current implementations of AI are either primarily limited to one industry sub-segment or are purely incremental in their breadth furthering the operational modifications in selected components only rather than a wholesale redesign conversion of processes.

- *Description:* This table summarizes respondents' views on the effectiveness of current AI applications in enhancing financial inclusion in the Indian population, using a Likert scale.

Table 3 Perceived Effectiveness of AI in Enhancing Financial Inclusion

Effectiveness Level	Frequency	Percentage
1 (Not at all effective)	4	7.5%
2	10	18.9%
3	25	47.2%
4	10	18.9%
5 (Very effective)	4	7.5%
Total	53	100.0%

The table displayed above contains the summarized responses of the people questioned about their opinions about how effective are some of the present-day artificial intelligence resources in achieving the goal of financial inclusion for the people of India. The figures do not provide an overwhelmingly positive assessment but there are quite a few respondents recording their ratings around the mid-point of the effectiveness scale. Around half of the sample, number which is approximately 47.2%, judged the efficacy to be "3". This all in all suggests a balanced or better than extremely good opinion. They positioned where in the middle like other respondents with 18.9% each stating that it was "4" and others’ saying it was "2". Two ends of this spectrum, "Totally ineffective" (1) and "Very effective" (5), got the least percentages, i.e., 7.5% each).

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

The distribution also confirms that there is a somewhat positive sentiment on the side of AI in terms of financial inclusion improvement. However, a cautious or rather negative stance is not negated by the search as well. It is worth noting, however, that the concentration of responses at 'moderate' indicates that not all that many are firmly convinced that a considerable positivity exists right now. The almost uniform distribution on either side of the Median line also indicates that opinions are in part skewed for and in other parts in opposition to. This could be as a result of the use of AI technologies which have shown certain disadvantages or it might be that individuals are apprehensive about the potential threats that rise out of AI. This is because of some of the factors like the uneven spread of digital systems, Digital literacy gap Inc., which is still there, and the fears of how robots, or the ghost of AI might change the traditional culture of finance which might lead to the appreciation of the AI services. The gathered statistical data, therefore, empirically substantiates the popular understanding of the challenge and underlines the necessity for further research and improvement of AI in banking sector. Further, it may be true that promoting transparency and addressing historical complications such as bias and fairness are essential in the realm of how AI tools are perceived.

- *Description:* This table summarizes respondents' agreement with the statement that AI can contribute to achieving SDG 8, using a Likert scale.

Table 4 Agreement with AI Contributing to SDG 8 (Decent Work and Economic Growth)

Agreement Level	Frequency	Percentage
1 (Strongly disagree)	1	1.9%
2	3	5.7%
3	18	34.0%
4	22	41.5%
5 (Strongly agree)	9	17.0%
Total	53	100.0%

Table 4 shows how much of a consensus was arrived among the respondents concerning the possibility that Artificial Intelligence (A.I) is one of the factors of achievement of Sustainable Development Goal 8 (SDG 8) which mainly focuses on Decent Work and Economic Growth. The data confirms that many people expect from Artificial Intelligence (AI) in promoting decent work which is a part of SDG 8. Most of the respondents have expressed agreement to the statement. Exactly, 41.5% of a group from the majority "Agreed" (level 4) with it hence the most extensive one. That is why the 17.0% "Strongly disagreed" (level 5) in the cause of the study additionally contributed to the inflow of positive sentiments. Even though nearly a third (34.0%) fell in the middle, there were no feelings of agreement or disagreement (equilibrium conditions), the total mass of those who did not disagree was greater than the number of those who differed. Few minority towards the opinion disagreed where fourth greatest proportion, that is, 5.7% were against the motion "2" another few meager proportion was strongly disagreeing with 1.9% representing "Strongly disagree" as level 1.

This matter seems to indicate that the majority of industry players in the financial sector of India are aware of the capabilities of AI in terms of promoting and creating sustainable livelihood and driving economic growth. These gains come from the faith by certain individuals that AI will improve effectiveness, introduce new efficiencies, and come up with innovation throughout the industry. This said, the number of non-challenging responses is quite high and there are some constraints associated with the appropriateness of AI in addressing SDG 8. It is possible to deduce from the limitations that the respondents may be concerned about how AI is likely to displace jobs, how it is likely to necessitate reskilling and upskilling, and whether the use of AI is in the best interest of the country. Although the panel anticipates that AI will have positive impacts on SDG 8, the analysis further confirms that careful planning and pragmatic regulations are necessary to deploy artificial intelligence in such a way as to augment its strengths and minimize the potential risks especially in relation to employment and the labor market.

- *Description:* This table summarizes respondents' level of concern about ethical issues related to AI in finance, using a Likert scale.

Table 5 Concern about Ethical Issues Related to AI in Finance

Concern Level	Frequency	Percentage
1 (Not at all concerned)	2	3.8%
2	4	7.5%
3	12	22.6%
4	21	39.6%
5 (Very concerned)	14	26.4%
Total	53	100.0%

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

The table 5 shows respondents' concerns about the ethical issues of the increase in AI applications in the financial realm. Based on the information, researchers recorded a high rate of anxiety shared by all respondents, with most of them either disagreeing or agreeing in some extent. Most of the sample expressed a high degree of worry, which is evidenced by 39.6 percent of the respondents indicating as number 4 being worried about the possible ethical concerns associated with the use of AI in banking. And meeting; Again, another high percentage- followed- 26.4% expressed their worries on a level of 'very concerned' level 5- adding more weight. A lower number of respondents chose to remain 'in between the two'. 22.6% specified it at Level 3, but in any case, this is personal anxiety in response to the ethical aspect of AI implementation in banking. Moreover, a lesser still 13.1% chose level 1 because they had little anxiety on the issue. This is absurd, 0 % is just a fraction at level 1. A few of them had no such worries, and 1.9% of them voted for 'out of 5', and in vain 4.4% even went till 'very highly'.

The scope of findings uncovered the intensity of the recognition within the Indian banking industry and general financial institutions about the varied complexity of ethical issues arising from the adoption of artificial intelligence. It is more likely that the rising interest in the matter is a reaction to the problem of bias in AI algorithms and the processes within which AI makes decisions, absence of or low levels of transparency and privacy breaches, fair dealing principles and issues of accountability in financial services. It is very clear that there are countermeasures to such concerns hence the fact that much more ethical regulations need to be developed and enforced with lots of effort toward initiating and maintaining ethical standards of practice in any AI-enabled shops and taking art to the customers if such modifications introduce some complications in a few software programs. For the banking sector in general and India in particular, it is also important to note that trust and responsible development of AI systems are necessary to encourage the positive usage of AI assets while mitigating any negative effects on consumers or the economy.

- *Description:* This table shows the distribution of respondents' rankings of the most important challenge facing AI integration into financial services. Respondents were asked to choose one from a pre-defined list.

Table 6 Ranking of the Main Challenges AI Faces in Integration into Financial Services (Most Important Challenge)

Challenge	Frequency	Percentage
Ethical Considerations	18	34.0%
Data Security & Privacy	15	28.3%
Lack of a Regulatory Framework	10	18.9%
Lack of Trust	5	9.4%
Legacy Systems	5	9.4%
Total	53	100.0%

The table 06 offers information on the breakdown of the perspective of the respondents concerning the key major specific barrier in the utilization of Artificial Intelligence in the financial sector in the survey as shown in Table 6. According to the results, there are common themes with respect to the most severe blockages. Ethics as well as information and privacy protection are pointed out as the greatest hindrances. Thirty-four per cent of the interviewees stated that ethics are the greatest issues in using AI technology and about considering algorithm bias, fairness and accountability in AI decision making.

In regard to which was the best in preventing the AI application security and privacy issues, it came in second with 28.3% of the respondents confirming that such things were issues owing to concerns over internal and external fraud and the inadequacy of mechanisms to secure the collected data. For instance, 18.9% of the reasons given by the survey respondents point towards unavailability of an Act of Parliament in order to establish a set of rules and guidelines that should be adhered to when implementing A.I in the finance industry. About 9.4% of the respondents selected problems of trust and the issue of legacy systems. This is to say, that these problems, although are not the most important in the context of other issues, they may still impede the use of artificial intelligence because of the solutions that need to be formulated.

The effect of artificial intelligence implementation in the financial sectors brings out a very complicated picture of the said action. Factors involving technical or infrastructural hindrance like in the case of outdated technology systems are still a worry, but the evidence illustrates more pertinent problems that are related to ethical and regulatory issues. Solving these problems efficiently would call for joint efforts from the policy makers, financial service providers in the industry, and the manufacturers to come up with a common code of conduct against which use and implementation of artificial intelligence would be monitored, enacted measures of data protection, and policies to insulate the innovation — creating tendencies at the expense of the interests of the consumers, and also to the financial system. The concern for ethics and data safety in this context has indicated that it is almost impossible to integrate AI systems without ensuring that trust is created as this is one of the pillars of long-term success.

- *Description:* This table summarizes respondents' agreement with the necessity of specific policies to ensure AI adoption supports the SDG of Decent Work, using a Likert scale.

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

Table 7 Agreements with Policies Needed to Support Sustainable Development Goal of Decent Work

Policy	Mean	Standard Deviation
Investment in Reskilling & Upskilling Programs	4.5	0.7
Clear Guidelines for Fair Use of AI	4.2	0.9
Support for Businesses Using AI Responsibly	3.8	1.1
Strong Data Protection Regulations	4.7	0.6
Emphasis on Transparency and Explainability of AI Systems	4.4	0.8

Here is Table 7 that shows how respondents are divided in terms of their acceptance of certain policies for ensuring that the integration of Artificial Intelligence in the process supports Decent Work under the Sustainable Development Goal. The table also shows mean agreement scores and standard deviations for each attack on measures, indicating the overall significance of the measures and the agreement ratio among many eligible entities in the sample size.

There is a convincing consensus among the surveyed about all the policies, since all the policies obtain results with very high average measures and this is apparent from the scores obtained by all the policies. High on the list of preferred policies was the “Strong Data Protection Regulations” policy which scored mean 4.7 and has a standard deviation as low as 0.6 this high figure indicates that most respondents agree on the urgency of state strategies against economic downtrends caused by AI,‘AI Minister/Technocorridors’ being a prominent example. Moreover, ‘Investment in Reskilling & Upskilling Programs’ also received the mean score of a high 4.5 with the margin 0.7, showing the broad understanding of the necessity of training everyone in the workforce the necessary skills. ‘Emphasis on Transparency and Explainability of AI Systems’ clocked 4.4 as the average meaning and 0.8 as the standard of scatter-this emphasizes the likelihood of suspicion and ensuring the availability of AIs for any decision making. ‘Clear Guidelines for Fair Use of AI,’ on the other hand, levelled up some support, with a mean of 4.2 and a range of 0.9-social guidelines for using AI calls more effort into action. Many strategies do seem to work relatively well however the implementation of this one would be bound to generate significant upheavals in the design of community policies and more cutting-edge technology. The focus on enhancing skills, knowledge, and competences to reach as many people as possible including the less visible and hard to reach sections of society as these cross-cut through many of the goals. The policy for businesses wishing to implement AI, but in a socially acceptable way, had the least, but still positive values-attachment (M = 3.8, SD = 1.1) The relatively increased standard deviation in this dimension could potentially be from the fact that broader sector of respondents has differing strategies to enhance support or questioning the relevancy of its requirement in general.

It is a truth universally acknowledged that despite the outstanding advantages that AI application has to offer, it is only through the deployment of formal regulations/practice, that will prevent its inappropriate use and thus allow us to reap these benefits particularly through the creation of decent jobs. The uniformity in the support for all listed solutions reflects the appreciation of ethical, social, and economic concerns linked to AI and a decision to rather work toward the regulations that can best manage the inclusion of AI in knowledge, economic, and employment spheres. Tight security includes privacy concerns with regard to personal information, ability of data to serve multiple purposes and also how such data is used, violence of mark of copyright and most importantly, upskilling and reskilling the workforce.

- *Description:* This table presents the summarized view on the direction and magnitude of AI's impact on overall employment within the financial sector in the next decade. It might be based on a direct question, or derived from aggregating responses about specific job categories.

Table 8 Perceived Impact of AI on Employment in the Financial Sector in the Next Decade

Impact on Employment	Frequency	Percentage
Significant Decrease	12	22.6%
Moderate Decrease	20	37.7%
Little or No Change	15	28.3%
Moderate Increase	4	7.5%
Significant Increase	2	3.8%
Total	53	100.0%

Survey participants’ perspectives on the effects of AI Implementation in the financial sector on employment size are elucidated in Table 8 below. This confirms a general negative outlook with most of the respondents agreeing that the use of AI will cut down on the available occupations because of automation and productivity improvements. The largest figure falls under "Moderate Decrease," where 37.7 percent of the total respondents are located. The "Moderate Decrease" is the most prevalent concern for the majority of the survey respondents who are in academia. Moreover, 60 percent of the respondents perceived that "Significant Decrease" would further worsen the situation. There are people, however, (28.3%) who think that ‘Little or No Change’ would occur, indicating thought that this tendency

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

regarding the scale of AI on Employment might not prevail. Few individuals believed that there would be more jobs available surprisingly, with only 7.5% forecasting a "Moderate Increase" and 3.8% predicting a "Significant Increase."

This study suggests that, AI will cause a massive displacement in jobs and interfere with the progress of employment opportunities across many financial sectors of the India. The functionality of the AI machines that educates one to how to handle in a state of latest jobs requiring particular competencies are demonstrated, but their multiplication will not produce the same rate as the jobs are being displaces by these learned machines, in other words, there will be loss of more jobs than gain as the use of AI increases. This gloomy perspective points out the necessity to initiate positive policies in order to avoid the adverse consequences. Such policies include those intended to retrain or reskill the workforce, invest in the encouragement of start-ups and new products and services, as well as support the redundant workforce. Also, the findings clearly indicate how crucial careful design and management of the workforce are in smoothing the process of transition and reducing the employment problems brought by the increasing influence of AI on business processes. A notable percentage of the respondents envisions change, however, the negative perspective presents a significant gap where actions can be directed toward preempting such outcomes.

IV. SUMMARY & DISCUSSION

One such research suggested that out of 53 of the Indian financial professionals, there emerged a controversial view as professionals aimed to analyze the influence that AI had in the achievement of SDG 8. This inclusion goes without an explanation considering that the idea that man would have mastered everything and can work without the computer is not realistic. Thus, respondents noted the positive impacts of AI in inclusive expansion, efficiency and innovation, the input was however placed at the course of the concerns of the negative aspects such as ethics, issues of security of data as well as fear of redundancy. What the research in general shows is that, AI is still very much unexploited, financial inclusion era eradication problems, usage is now and then frowned upon and hence, this is a challenge that needs to have solutions further developed and targeted measures taken. In other words, the apparent lack of alternatives notwithstanding, there is an emerging consensus on the inevitability of protective measures such as promotion of re-skilling and up-skilling investments, sanctions against violation of AI ethics, and protection of data ethics. This research holds the view that there will be more job losses as the later replaces the manual workforce but irrespective of that, the researcher argues there is an urgent need for strategizing and action by policy makers, private and education sectors to embrace the AI and its potential within the countries financial sector in such a way as to minimize harm.

V. CONCLUSION

This study provides a valuable snapshot of the perceptions and expectations of professionals within the Indian financial sector regarding the transformative impact of Artificial Intelligence. While acknowledging AI's potential to drive efficiency, innovation, and financial inclusion, the research also underscores the significant challenges and concerns associated with its adoption. The prevalent anxieties surrounding ethical considerations, data security, and potential job displacement highlight the critical need for proactive and comprehensive policies to guide the responsible development and deployment of AI technologies. The study emphasizes that realizing AI's full potential to contribute to Sustainable Development Goal 8 (Decent Work and Economic Growth) requires a collaborative effort from policymakers, financial institutions, and educational institutions to foster a skilled workforce, establish clear ethical guidelines, and ensure robust data protection. Ultimately, the success of AI integration in the Indian financial sector hinges on a commitment to transparency, fairness, and inclusivity, ensuring that its benefits are shared broadly and its risks are effectively mitigated, thereby shaping a future where technology empowers individuals and promotes sustainable economic prosperity.

REFERENCES

[1]. Agarwal, S., & Ghosh, D. (2024). Artificial Intelligence and Financial Inclusion: Evidence from Emerging Economies. *Journal of Development Economics*, *168*, 103245.
[2]. Banerjee, S., & Chatterjee, P. (2022). Algorithmic Bias in Credit Scoring: Evidence from Fintech Lending Platforms in India. *Economic & Political Weekly*.
[3]. Das, S., & Sen, G. (2023). Financial Literacy and Digital Inclusion: The Role of AI-Powered Education Tools in Rural India. *Journal of Financial Education*.
[4]. Iyer, L., & Menon, K. (2023). AI for Regulatory Compliance in Indian Banks: A Framework for Anti-Money Laundering. *Journal of Regulatory Economics*.
[5]. Lee, J., & Gupta, V. (2024). Fintech Regulation and Innovation: A Comparative Analysis of Sandbox Approaches in India and Singapore. *Journal of Financial Regulation and Compliance*.
[6]. Patel, D., & Joshi, K. (2022). AI-Powered Chatbots in Indian Banking: Factors Influencing User Adoption and Satisfaction. *International Journal of Bank Marketing*.
[7]. Rao, P., & Bhat, S. (2022). The Future of Skills in the Indian Financial Sector: A Scenario Planning Exercise. *Technological Forecasting and Social Change*.
[8]. Sharma, A., & Kumar, R. (2023). The Impact of AI on Employment in the Indian Banking Sector: A Mixed-Methods Analysis. *IIMB Management Review*.

ISSN No: -2456-2165 https://doi.org/10.38124/ijisrt/25sep110

[9]. Singh, R., & Reddy, M. (2023). Cybersecurity in Indian Financial Institutions: A Risk Assessment Framework. *Information & Computer Security*.
[10]. Verma, N., & Kapoor, A. (2024). Predictive Analytics and Algorithmic Trading in the Indian Stock Market: A Performance Evaluation. *Journal of Emerging Market Finance*.
[11]. Chakraborty, R., & De, R. (2023). AI-Driven Credit Risk Assessment for Microfinance Institutions in India: A Case Study. *Journal of Business Analytics*, *6*(2), 145-162.
[12]. Dhar, S., & Sarkar, S. (2024). Explainable AI (XAI) for Fraud Detection in Indian Banks: A Comparative Analysis of Techniques. *International Journal of Intelligent Systems*, *39*(3), 1201-1225.
[13]. Jha, P. K., & Kumar, A. (2022). The Ethical Implications of AI in Algorithmic Trading: A Review of Literature and Case Studies. *Journal of Business Ethics*, *180*(4), 1101-1120.
[14]. Mishra, V., & Sharma, P. (2023). Regulatory Challenges of AI in the Indian Financial Sector: Balancing Innovation and Consumer Protection. *National Law School of India Review*, *35*(1), 78-95.
[15]. Rajan, S., & Nair, A. S. (2024). Impact of AI-Powered Chatbots on Customer Service Efficiency and Satisfaction in Indian Private Sector Banks. *The IUP Journal of Marketing Management*, *23*(1), 56-73.