

# Effects of Artificial Intelligence on Financial Reporting

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**Abstract:** *In today's financial reporting, intelligence (AI) has become a transformative force that holds the potential to completely change efficiency and accuracy in a wide range of industries. The impact of AI on the accuracy of financial reporting is examined in this study. Addressing important issues related to its application, difficulties, and ideal procedures. The research endeavors to offer significant insights to assist organizations in effectively utilizing AI while upholding the integrity of their financial reporting procedures through an extensive investigation.*

*Most survey respondents acknowledged improvements in efficiency and error reduction, and most respondents had a generally positive perception of AI's impact on financial reporting accuracy. But difficulties like the requirement for qualified workers and worries about data security were cited as major obstacles to AI integration. The validation of AI-generated outputs was found to be significantly dependent on human oversight, highlighting the complementary role that human judgment plays in conjunction with technological advancements. The results demonstrated AI's ability to improve financial reporting accuracy by utilizing automation and sophisticated data analytics. Important suggestions include funding extensive employee training programs, combining AI with human knowledge, putting strong data governance frameworks in place, auditing AI systems on a regular basis, and involving stakeholders in the integration process. To sum up, this study addressed issues and emphasized the value of human oversight while offering insightful information about how AI technologies can raise the accuracy of financial reporting. Organizations can optimize the advantages of AI in financial reporting by implementing suggested best practices, opening the door for more trustworthy and knowledgeable decision-making in the digital era. This study adds to the expanding body of information about how AI affects financial practices and provides useful advice for businesses looking to use technology effectively..*

**Keywords:** Artificial Intelligence; Financial Reporting; Accuracy; Technology Integration; Data Analytics.

## I. INTRODUCTION

Brown, T. J. (2019) Policymakers and other economic stakeholders rely heavily on financial reporting. These consist of stakeholders, investors, management, and regulators. When making strategic decisions for the organization's success, management relies heavily on the financial data derived from financial reports. Long-term financial performance and health of an organization are clearly depicted by accurate financial reporting (Nguyen, T. as well as Kim, S. (2022)). Despite this, human error, inefficiencies, compromise, and bias are common problems with traditional financial reporting methods. Artificial intelligence's emergence, including natural language processing. In order to improve the accuracy of financial reporting by organizations in the global village, new capabilities introduced by machine learning, big data, predictive analytics, and other sophisticated accounting software have altered the way accounting information is processed (Smith, A. Johnson & L, R. 2020). The accuracy and narrative style of financial reporting have been altered by artificial intelligence. In order to cut expenses and minimize errors in financial reporting, many organizations have redirected their resources to investments in artificial intelligence (Carter, F., 2022).

## **II. LITERATURE REVIEW**

Financial Reporting: To illustrate a company's financial status and performance, financial reporting documents include income statements, cash flow statements, and balance sheets. Financial reporting is the process of sharing a company's financial data and details with various controllers, such as directors, managers, and investors. Assisting these users or controllers in making decisions is the goal. Information about the company's finances, loans, debts, profits, and losses are displayed in the income statement and financial position. The company's financial health should be clearly depicted in the financial statements, which should be simple to read. For these statements to be useful, they must possess certain qualities. The financial reporting process, or FRP, consists of several steps, such as identifying financial transactions, documenting them in journals, and posting them to ledgers. Before financial statements are compiled, trial balances are prepared and adjusted to ensure accuracy. The process of financial reporting is evolving with new technologies. Faster and more accurate reporting is made possible by new technologies, but to remain competitive, organizations must constantly assess and enhance their procedures. Making well-informed business decisions requires a thorough financial reporting process.

Businesses can add value and make better decisions every day when they have access to timely and high-quality financial information.

### **OBJECTIVES**

- The primary goal of this study is to examine how artificial intelligence affects financial reporting.
- To examine how different AI technologies affect the accuracy of financial reporting and data in businesses.
- To investigate the obstacles and constraints businesses encounter.

## **III. METHODOLOGY**

Y. Chen. (2021) To conduct a thorough investigation into the impact of artificial intelligence on the accuracy of financial reporting, this study used a mixed method approach that integrated qualitative and quantitative data. The goal was to compile a thorough understanding of financial professionals' and organizations' perspectives on the use of AI technologies in their businesses about the accuracy of financial reporting. To gain a thorough understanding of their artificial intelligence implementations, companies in the auditing, manufacturing, and tourism sectors were visited

### **Prospectives: -**

Cost-effectiveness (Patel, D., 2023): Including AI in financial reporting has the potential to save a lot of money. Routine task automation frees up many human resources, enabling finance teams to concentrate on strategic analysis and decision-making (Williams, J. as well as Thompson, E. (2023). One point. 2. Organizations can generate financial reports on demand thanks to Real-Time Reporting AI, which facilitates real-time data processing (Sanders, M., & Lee, Y, 2023). This immediacy ensures that stakeholders have access to the most recent information and enables organizations to react swiftly to changes in the market and internal performance metrics (Smith, A. I., and R. Johnson, 2020). One point. 3. Enhanced Data Accuracy: Algorithms are capable of precisely processing large volumes of data, which lowers the possibility of human error (Edwards, C. 2019). For instance, machine learning models can spot anomalies that could point to discrepancies, and automated data entry systems can reduce transcription errors (Edwards, C. 2019). One point. 4. Predictive analytics tools (Morales, 1, 2020) can forecast future trends by analyzing past data, which facilitates better informed decision- making. Organizations can improve overall reporting accuracy by better preparing for future challenges with the help of insights into potential financial outcomes (Brown, T. J (2019).

### **Challenges-**

Artificial intelligence (AI) has been incorporated into several business processes in recent years, which has revolutionized decision-making frameworks and operational efficiencies. Financial reporting is one crucial area in which AI is making great progress. The growing dependence of organizations on AI technologies for data analysis, forecasting, and report generation has raised questions about the dependability and precision of these automated financial reports. Finance professionals and other stakeholders are beginning to doubt whether AI can reliably provide accurate financial statements that adhere to legal requirements and satisfy user expectations, even with the potential

benefits of increased speed and efficiency that AI provides. Financial losses, harm to one's reputation, and legal ramifications are just a few of the dire consequences that can arise from financial reporting errors. The application of AI technologies also calls into question the role of human oversight, potential biases in data interpretation, and the transparency of algorithms. It is imperative to evaluate how AI affects the overall integrity of financial reporting processes as well as the accuracy of financial information as financial reporting standards change. The direct effects of AI on the accuracy of financial reporting are currently the subject of little empirical research, particularly in certain industry contexts. This knowledge gap poses difficulties for organizations that want to.

**Sources of Data**

**1. primary Data**

The primary data has been collected with the help of a structured survey which include close ended question only.

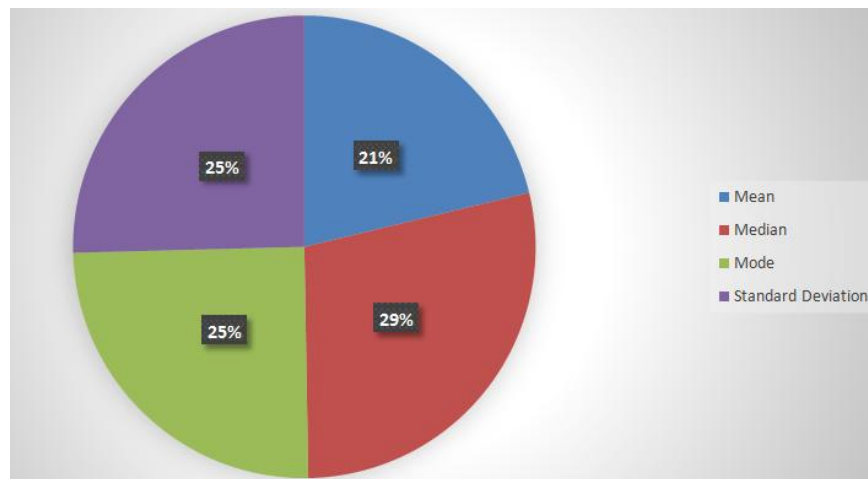
**2. Secondary Data**

Secondary data is collected from books, e-journal, magazine, articles, published literature etc.

**IV. DATA ANALYSIS AND INTERPRETATION**

Table 1: - Statistical metrics

Statistic	Value
Mean	5.85%
Median	7.85%
Mode	6.85%
Standard Deviation	7.0%



**1) Mean**

The average of all the percentage gains in the accuracy of financial reporting is known as the Mean. It was computed by adding up each individual improvement and dividing that total by the number of observations, in this case 100 departments. A mean of 6.85 percent showed that, on average, the implementation of AI improved reporting accuracy in the departments by 5.85% percent. This figure served as a typical indicator of AI's overall impact across all departments and represented the dataset's central tendency. Stakeholders were able to comprehend AI's overall efficacy in raising reporting accuracy thanks to this average. It functioned as a standard by which to compare

**2) Median**

When the dataset is arranged in ascending order, the median is the middle value. It is the mean of the 50th and 51st values in the sorted list for an even number of observations (100).

It was evident that the distribution of improvements was symmetric around this value because the median was likewise 67.85%percent. Less than 7.85% percent improvement was seen in half of the departments, while more than 7.85% percent improvement was seen in the other half. There was no discernible skew in the distribution of improvement values, as indicated by the equality of the Mean and Median. This indicated that the improvements were dispersed evenly around the 7.85% percent central value

**3) Mode**

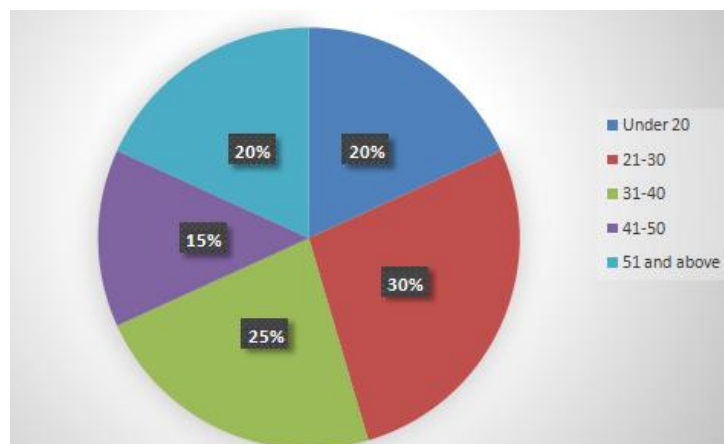
The value that appears most frequently in the dataset is called the mode. According to a mode of 6.85% percent, this improvement in percentage was the most prevalent outcome across all departments. It implied that many departments frequently experienced a 6.85% percent result after implementing AI. The existence of a mode revealed information about typical experiences and advancement levels. A clustering of data points at levels of improvement would have been indicated if the mode differed significantly from the mean and median.

**4) Standard Deviation**

The average separation between each data point and the mean was determined by the standard deviation. It measured the dataset's degree of dispersion or variation. The improvement percentages were, on average, 7.0% percent from the mean of 7.0% percent, according to a standard deviation of 7.0%percent. With only slight variations from the norm, this comparatively low value indicated that the improvements were uniform across departments. Less variation in AI's efficacy across departments was indicated by a lower standard deviation, which suggested that most departments saw improvements near the mean. It aided in evaluating the consistency and dependability

**Table 2: - Demographic Information on Gender Distribution**

Gender	Frequency	Percentage
Male	50	50 %
Female	45	45 %
Prefer not say	5	5 %
Total	100	100 %

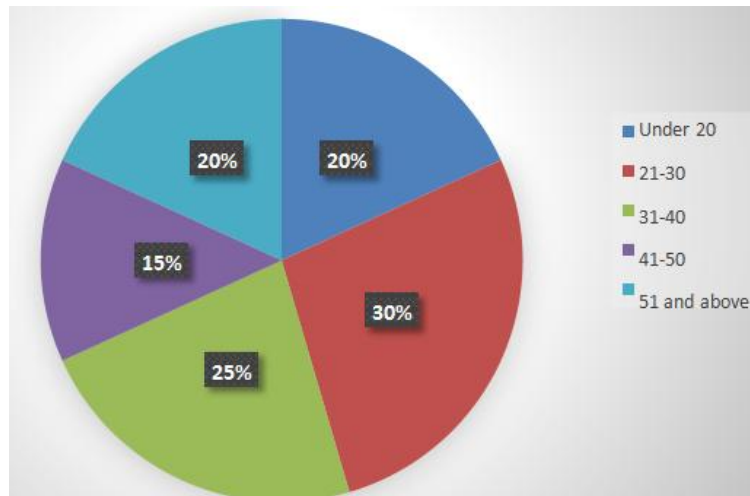


Fifty of the 100 respondents, or 50 percent of the sample, identified as male. This showed that there was a notable representation of men in the study. Female: Forty Five percent of the sample consisted of 45 respondents who identified as female. This demonstrated a somewhat greater representation of women than men, pointing to a gender distribution that is balance.

Five out of the total respondents, or five percent, did not reveal their sex. This tiny percentage indicated that some participants were willing to keep personal information private. Overall, the data showed a slightly higher percentage of female participants, and the study's respect for respondents' privacy is demonstrated by the inclusion of respondents who chose not to reveal their sex

Table 3: - Age Distribution of the respondent

Age Group	Number of Respondent	Percentage [%]
Under 20	20	20 %
21-30	30	30 %
31-40	25	25 %
41-50	15	15 %
51 and above	20	20 %
Total	100	100 %



Twenty respondents, or 20% of the sample, fell into this age group. This suggested that most responders probably had some professional experience because younger people did not participate very much. 21–30: With 30 responders, this group made up 30% of the sample.

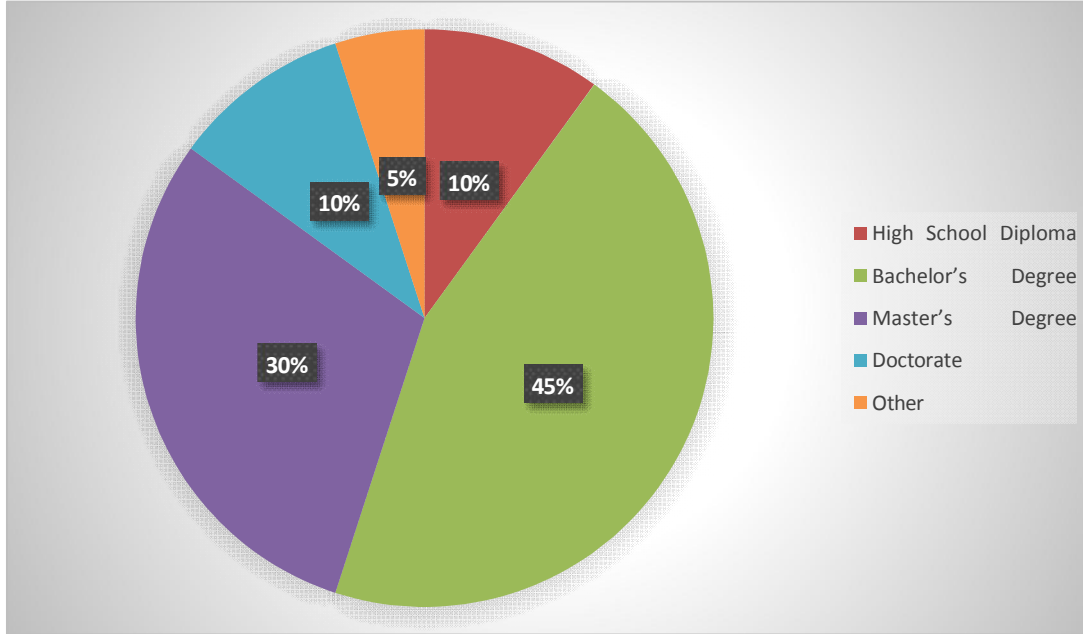
This group reflected a growing interest in AI among younger adults and comprised a sizable portion of early career professionals. 31–40: Twenty- five respondents, or 25% of the sample, made up the largest group. This suggested that a sizable portion of professionals in their mid-career had extensive knowledge of AI technologies and financial reporting. Ages 41– 50: 15 responders, or 15% of the sample, were in this age range.

According to this section, the respondents were at a point where they were thinking about how AI might affect their current procedures. Ages 51 and up: Twenty responders, or 20% of the total, fell into this category. This suggested that although older professionals did participate, their numbers were comparatively lower than those of younger age groups. The age distribution data showed a wide variety of participants, most of whom were in the 21–30 age range. This diversity offered insightful information about how people at various stages of professional development perceived artificial intelligence's impact on the accuracy of financial reporting. The analysis of AI's influence in financial contexts was improved by the study's balanced representation of different age groups.

Table 4: Level of Education Distribution

Level Of Education	Number Of Responders	Percentage
High School Diploma	10	10 %
Bachelor's Degree	45	45 %
Master's Degree	30	30 %
Doctorate	10	10 %

Other	5	5 %
Total	100	100 %



High School Diploma: Ten responders, or 10% of the sample, fell into this category. This showed that only a small percentage of participants had only finished high school, indicating a desire for more advanced training in this area. Bachelor's Degree: Forty-five responders, or forty-five percent of the sample, were in this group. The bulk of responders had bachelor's degrees, indicating a solid background in subjects related to technology and financial reporting.

**Master's Degree:**

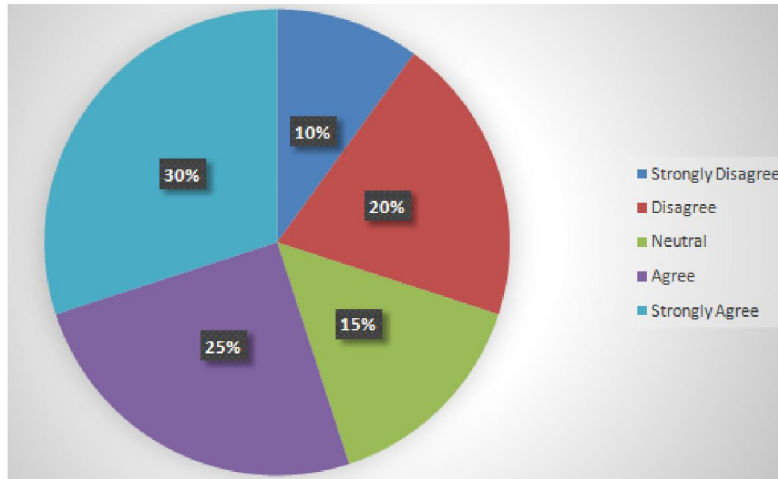
Thirty percent of the respondents, or thirty people, had a master's degree. This suggested that there were a sizable number of people with specialized training and advanced knowledge, which probably led to a better understanding of how AI affected financial practices. Doctorate: Ten responders, or ten percent of the sample, were doctorate holders. A high degree of expertise was demonstrated by this group, which offered insightful theoretical viewpoints on the relationship between AI and financial reporting. Additional (please describe): Five responders, or 5% of the sample, selected this option. Professionals with a range of credentials, including professional certifications (such as CPA or CFA) or specialized training related to financial reporting, were included in this group. The distribution of respondents' educational backgrounds revealed that most of them held bachelor's and master's degrees, suggesting that the sample is highly educated and has relevant financial expertise.

Table 5: Level Of Agreement

The use of artificial intelligence has improved the accuracy of financial reporting in my organization.

Response	Number Of Respondents	Percentage [%]
Strongly Disagree	10	10 %
Disagree	20	20 %
Neutral	15	15 %
Agree	25	25 %
Strongly Agree	30	30 %
Total	100	100 %





Strongly Disagree (1): Ten respondents (10%) said that their company's financial reporting accuracy has not increased because of artificial intelligence. This suggested a minority viewpoint that results from doubts about AI's efficacy or discontent with how it has been implemented.

Disagree (2): Twenty respondents (20 percent) disagree, indicating that although they accept some advantages of AI, they do not think it has greatly increased accuracy.

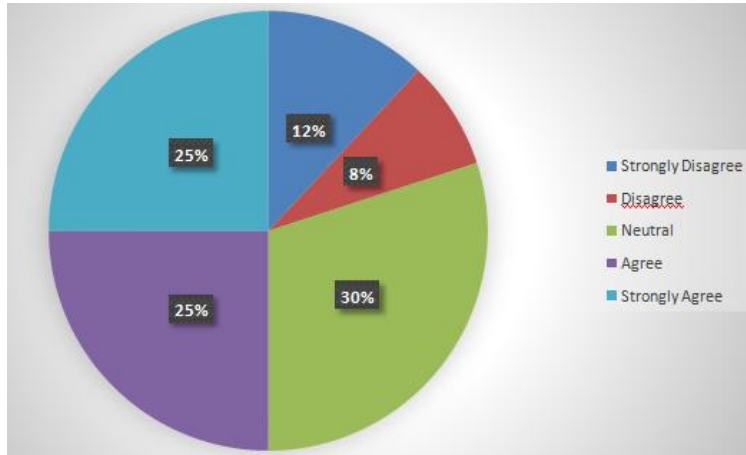
Due to organizational difficulties or personal experiences, this group was hesitant. Neutral (3): Fifteen respondents, or fifteen percent, expressed no opinion regarding the statement. They either felt that the impact was ambivalent and neither positive nor negative, or they had little exposure to AI in financial reporting. Agree (4): Twenty-five respondents, or 25%, concur that AI's accuracy has increased. This group of respondents made up the largest portion, suggesting that they had a positive opinion of AI's contribution to improving financial reporting procedures. 30 respondents, or 30%, strongly concur that AI has improved accuracy (Strongly Agree

(5)). This group acknowledged that the integration of AI had resulted in notable enhancements to their organizations' financial reporting procedures. The replies revealed a largely optimistic view of how artificial intelligence will affect the accuracy of financial reporting. The data indicated a significant acceptance of AI's benefits, with 55% of respondents (combined agree and strongly agree) acknowledging improvements. Nonetheless, the 20.

Table 6: - Artificial Intelligence In Reducing Human Error.

I believe that AI tools can reduce human error in financial reporting

Response	Number Of Respondents	Percentage [%]
Strongly Disagree	12	12 %
Disagree	8	8 %
Neutral	30	30 %
Agree	25	25 %
Strongly Agree	25	25 %
Total	100	100 %

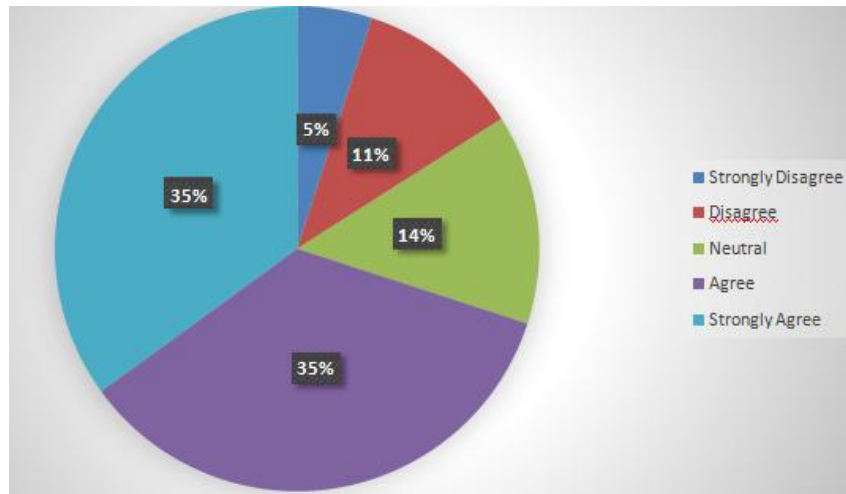


Twenty percent of respondents were skeptical of AI's capacity to minimize human error (strongly disagree and disagree combined). However, according to 55% of respondents (combined agree and strongly agree), AI tools can successfully reduce human error in financial reporting

Table 7: - Integration Of AI Into Financial Reporting.

The integration of AI into financial reporting has increased the efficiency of reporting of our reporting processes

Response	Number Of Respondents	Percentage [%]
Strongly Disagree	5	5 %
Disagree	11	11 %
Neutral	14	14 %
Agree	35	35 %
Strongly Agree	35	35 %
Total	100	100 %



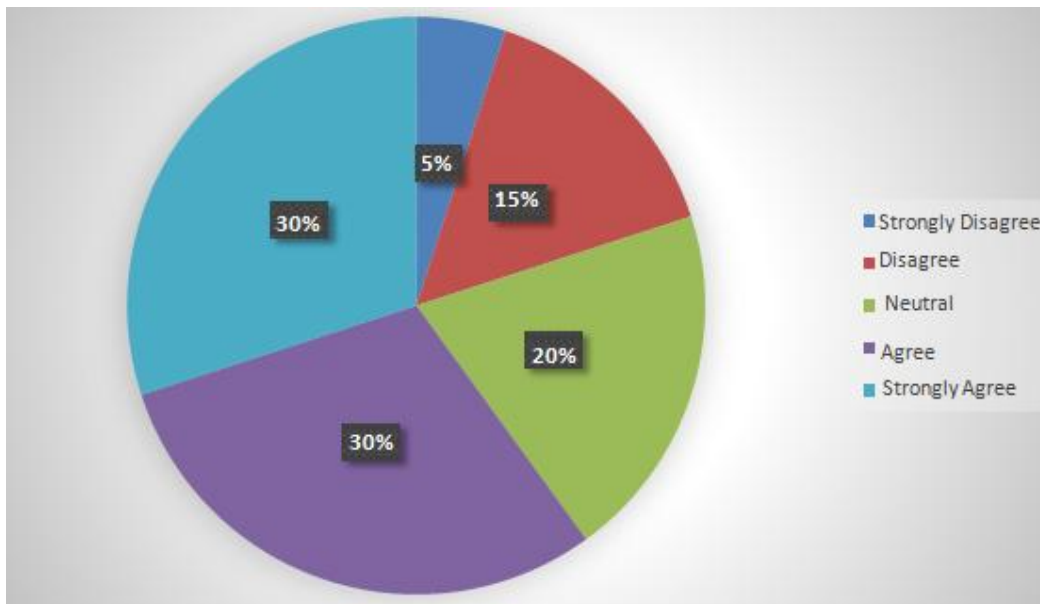
Seventy percent of respondents strongly believe that AI integration has improved reporting efficiency, while only fourteen percent are neutral or have doubts about the efficiency gains



Table 8: - Reliability Of AI In Generating Financial Reports.

I am concerned about the reliability of AI generated financial reports.

Response	Number Of Respondents	Percentage [%]
Strongly Disagree	5	5 %
Disagree	15	15 %
Neutral	20	20 %
Agree	30	30 %
Strongly Agree	30	30 %
Total	100	100 %

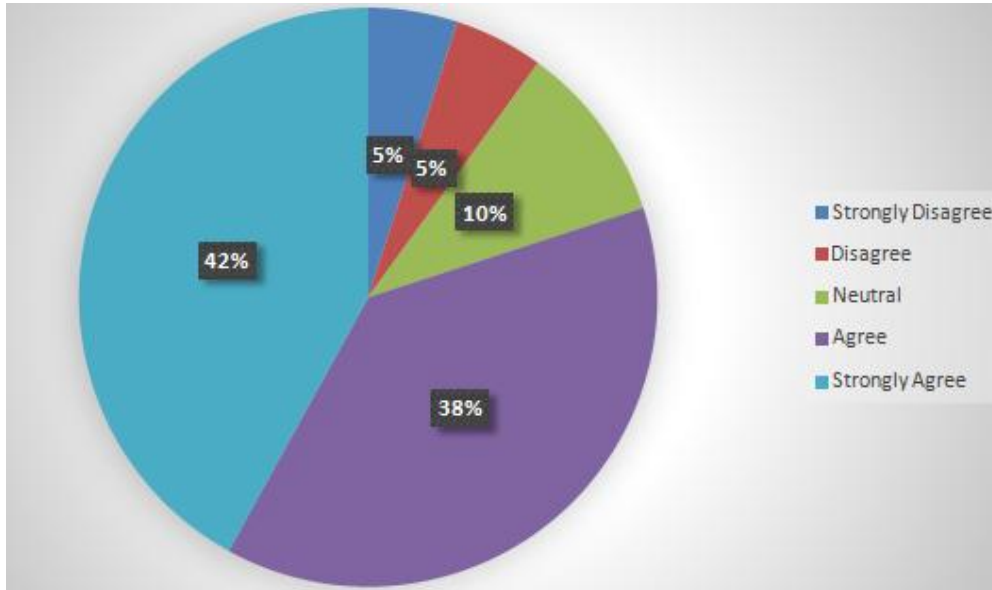


Significant skepticism regarding the dependability of AI-generated reports was demonstrated by the fact that 60% of respondents agreed to varying degrees with the statement

Table 9: - Human Oversights

Human oversight is essential to ensure the accuracy of AI generated financial reports

Response	Number Of Respondents	Percentage [%]
Strongly Disagree	5	5 %
Disagree	5	5 %
Neutral	10	10 %
Agree	38	38 %
Strongly Agree	42	42 %
Total	100	100 %

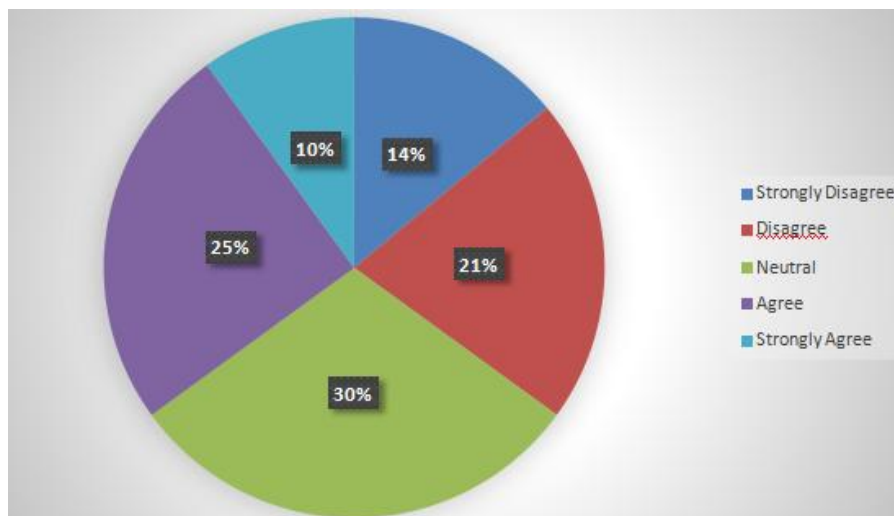


Significantly, 80% of respondents acknowledged the value of human oversight, demonstrating a strong conviction that human judgment is still essential for confirming AI.

Table 10: - Training Of Staff On Using AI.

My organization provides adequate training for staff on using AI in financial reporting.

Response	Number Of Respondents	Percentage [%]
Strongly Disagree	14	14 %
Disagree	21	21 %
Neutral	30	30 %
Agree	25	25 %
Strongly Agree	10	10 %
Total	100	100 %



With 35% of respondents disagreeing or strongly disagreeing, there was a noticeable lack of confidence in the adequacy of the training. Merely 35% of respondents believe that their company gave them enough instruction on how to use AI in financial reporting

## V. FINDINGS

The findings regarding the impact of artificial intelligence on the accuracy of financial reporting are presented and discussed in this section. The findings from each of the study's specific objectives—which were conducted at auditing firms, manufacturing firms, and tourism firms—are discussed in this chapter. The results of a study on the impact of artificial intelligence (AI) on the accuracy of financial reporting that was carried out at manufacturing, auditing, and tourism companies are covered in this section. The results are arranged according to each study goal.

### Recommendations

Based on the results, several best practices were suggested for businesses wishing to use AI technologies to improve the accuracy of financial reporting. Among the main suggestions were: Thorough Training Programs: Companies ought to fund frequent staff training to acquaint them with AI tools and their features. This will guarantee efficient use of AI technologies and aid in closing the skills gap. Combining AI and Human Expertise: Businesses should take a hybrid strategy that combines the use of AI tools with human judgment. Data Governance and Quality Management: To guarantee the integrity and security of financial data, strong data governance frameworks must be put in place. This partnership can improve accuracy and lower the chance of errors in financial reporting. Establishing data management procedures and upholding strict data quality standards are important for organizations. Frequent Audits of AI Systems: Regular reviews and audits of AI systems can guarantee regulatory compliance and assist in spotting possible problems early.

Stakeholder Engagement: Including stakeholders from various departments in the AI integration process can improve the overall efficacy of AI tools in financial reporting and enable a more seamless transition. While resolving the inherent difficulties and guaranteeing accuracy, these best practices show a calculated approach to utilizing AI technologies in financial reporting. According to the study, AI technologies can greatly increase the accuracy of financial reporting in businesses involved in manufacturing, tourism, and auditing. However, issues with skills, data quality, and human oversight must be resolved for AI to be integrated successfully. Organizations can optimize the advantages of AI while reducing risks by implementing best practices, which will ultimately result in more accurate and trustworthy financial reporting.

## VI. CONCLUSION

This study concluded by highlighting the substantial potential of AI technologies to improve the accuracy of financial reporting across a range of industries. But for integration to be successful, issues with data quality, skill gaps, and the need for human oversight must be resolved. Organizations can optimize AI's benefits and eventually produce more accurate and dependable financial reporting by implementing the suggested best practices. The knowledge gathered from this study. contribute to a better comprehension of the connection between AI and financial reporting, offering a useful starting point for further research in this developing area. The conclusions from the analysis of the data pertaining to artificial intelligence's (AI) impact on the accuracy of financial reporting are presented in this chapter. The study, which focused on four main goals that clarified the complex effects of AI in financial reporting, was carried out across auditing firms, manufacturing firms, and tourism firms. The study unequivocally showed that AI technologies greatly improve financial data and reporting accuracy. The efficiency of robotic process automation (RPA) and machine learning algorithms in simplifying financial procedures was emphasized by the respondents. For example, by automating the review of large datasets, AI tools enabled audits to be completed more quickly and accurately. AI's capacity to predict financial performance in manufacturing using real-time data enhanced.

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