



ANALYTICAL STUDY OF ARTIFICIAL INTELLIGENCE AND TECHNOLOGY IN FINANCE SECTOR

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ABSTRACT

AI is an interdisciplinary field that combines concepts from computer science, mathematics, neuroscience, and cognitive science. It aims to replicate or simulate human-like intelligence in machines, with applications spanning numerous industries such as healthcare, finance, transportation, and entertainment. Artificial Intelligence (AI) is transforming the fields of accounting and finance by automating tasks, improving decision-making, enhancing accuracy, and increasing efficiency. From automating routine processes to providing advanced data analytics, AI is reshaping the industry in several significant ways. AI tools can analyze historical financial data and external market factors to predict future financial trends. These tools help businesses and financial institutions. AI is increasingly used to assess financial risk and make more accurate credit decisions by analyzing a wide range of data sources. AI can Analyze credit history, social media activity, spending behavior, and other data points to predict the likelihood of credit defaults or lending risks. AI tools can analyze historical financial data and external market factors to predict future financial trends.



KEYWORDS: Financial Risk, Trends, Data analysis, Credit decisions

INTRODUCTION

Artificial intelligence experienced a resurgence with the development of expert systems that could solve problems in specific domains. These systems became commercially viable and were widely used in business and medicine. AI is now embedded in everyday technology, from virtual assistants like Siri and Alexa to autonomous vehicles and recommendation algorithms on platforms like Netflix and YouTube. AI is increasingly used in healthcare, finance, manufacturing, and education, improving efficiency and enabling new innovations. AI-powered tools can Extract and categorize financial data from receipts, invoices, and bank statements using Optical Character Recognition (OCR). Record transactions automatically and reconcile them with bank statements or ledgers. Ensure that accounting records are accurate and up-to-date without enquiring manual input. AI can enhance fraud detection by analyzing large volumes of transactions in real-time to spot unusual patterns or behavior indicative of fraudulent activity. AI systems can Monitor financial transactions for anomalies, such as unusual pending patterns, duplicate payments, or suspicious account activities. Monitor financial transactions for anomalies, such as unusual spending patterns, duplicate payments, or suspicious account activities. Use machine learning models to identify high-risk transactions and flag them for further review. Implement advanced predictive analytics to anticipate potential fraud risks. Example: Kount and

Darktrace use AI and machine learning to detect fraud by analyzing transactional data and identifying deviations from normal behavior. AI is increasingly used to assess financial risk and make more accurate credit decisions by analyzing a wide range of data sources. AI can: Analyze credit history, social media activity, spending behavior, and other data points to predict the likelihood of credit defaults or lending risks. Improve loan underwriting by assessing risk factors more accurately, enabling more informed and quicker credit decisions. Use AI-driven algorithms to calculate credit scores based on more sophisticated models and data inputs than traditional methods.

USES OF ARTIFICIAL INTELLIGENCE

- **Banking Sector:** AI enables long-term storage of banking data and provides easy access to banking operations, enhancing efficiency.
- **Accounting:** AI-powered tools like Mc-Excel support various accounting functions, including budgeting, financial statement preparation, and balance sheet management.
- **Automation & Robotics:** AI equips robots with computer vision, allowing them to process complex tasks efficiently while reducing human intervention.
- **Workplace Communication:** AI enhances communication within organizations, helping employees better understand tasks and ultimately boosting productivity.
- **Healthcare:** AI is used to maintain patient records and financial accounts, improving reliability,

REVIEW OF LITERATURE

Dr. Butalal Ajmera Kripa Brijrajsinh Gohil, (2020), the researcher reveals that use of technology is good but at the same time we must have control over technology. Technology should not have control on us. Looking at the importance of AI technology and threat to accountants, researchers have suggested some ways to avoid the challenges. Now the accountant has to acquire report writing skill. Now an accountant is not merely a data processor but his role is changed into a problem solver. He has to identify the problem within the organization and tries to give optimum solutions. Apart from this, an Accountant has to be considered a strategist who can develop strategies for business. Accountant has to acquire technical skill, digital skill, creative skill and skill to control the emotions.

Bhumika Gambhir (2019), the researcher studies that the transformative impact of Artificial Intelligence (AI) on the accounting and finance (A&F) profession, emphasizing the evolving expectations for professionals. It advocates for embracing technology and acquiring skills to collaborate effectively with AI. The paper discusses challenges and opportunities AI brings, offering insights on how A&F professionals can adapt and thrive in a techdriven landscape. We observe AI's transformative impact on accounting and finance, stressing the need for professionals to adapt to evolving technology. It discusses challenges and opportunities AI presents, advocating for skill acquisition and collaboration with machines to meet changing employer expectations effectively.

Dr. Om Prakash Gusai (2019) The researcher states that Artificial Intelligence is in a hot spot these days. Countries are taking it seriously and of course for the right reasons. AI paves way for a better and conducive environment in the field of accounting and auditing. Development in the field of AI can definitely be a great help to human efforts. Adoption of AI should be embraced and efforts to increase its potential can do wonders in such field workload is huge and include ocean of data.

Dr. Shurveer S. Bhanawat, Neelam Yadav (2019), In the computerized era of this business environment, the adoption of Computer Assisted Auditing tools and techniques in the audit process is very essential. For effective utilization of computer-assisted audit tools and techniques, it is important to identify scopes/area where computer-assisted audit tools and techniques are used and determinant factors of adoption of computer-assisted audit tools and techniques.

Odoh, Longinus Chukwudi (2018), The researcher examines the impact of artificial intelligence on accounting performance, highlighting its transformative role in financial institutions. It explores the shift from traditional paper-and-pencil entries to computer-based accounting systems. Focusing on accounting firms in Southeast Nigeria, the study assesses how AI has influenced accounting operations and efficiency. A descriptive research design was employed to analyze these effects

systematically. The findings provide insights into the evolving landscape of accounting practices, emphasizing the increasing reliance on AI-driven technologies to enhance accuracy, efficiency, and overall performance in financial reporting and decision-making.

Accounting and finance software after evolution of AI The latest accounting and finance software, enriched with AI capabilities, offer significant enhancements in automation, data analysis, and forecasting. These platforms utilize AI to automate routine tasks, offer predictive insights, and streamline financial management. Here's a list of some of the most recent AI-powered accounting and finance software:

- **Botkeeper**

Features: Automated bookkeeping with AI and machine learning.

AI Capabilities: Real-time transaction categorization, automated month end closing, and AI-driven financial reporting.

- **Domo**

Features: Business intelligence and financial analytics.

AI Capabilities: AI-powered insights and predictive analytics, real-time financial reporting, and cash flow forecasting.

- **Expensify (AI-powered)**

Features: Expense management with automated receipt scanning and reporting.

AI Capabilities: AI-driven receipt recognition, smart expense categorization, and automated approval workflows.

- **Sage Intacct**

Features: Cloud-based accounting, financial management, and enterprise resource planning (ERP).

AI Capabilities: AI-driven cash flow forecasting, budgeting, and performance analysis, with predictive analytics.

- **Fyle**

Features: Expense reporting and management with AI-based automation.

AI Capabilities: AI-powered receipt and invoice scanning, automated expense categorization, and predictive approval workflows.

- **Zeni**

Features: AI-powered financial management for startups and SMBs.

AI Capabilities: Automates accounting, bookkeeping, tax filings, and financial reports with machine learning algorithms.

- **QuickBooks Online (with AI)**

Features: Cloud accounting software with invoicing, expense tracking, and financial reporting.

AI Capabilities: AI-driven tax categorization, automatic transaction categorization, fraud detection, and predictive financial insights.

- **Xero (with AI capabilities)**

Features: Cloud-based accounting, payroll, invoicing, and bank reconciliation.

AI Capabilities: Machine learning-driven reconciliation, financial forecasting, and invoice matching.

- **CashFlow Frog**

Features: Cash flow forecasting and financial management for small businesses.

AI Capabilities: AI-powered cash flow predictions, real-time financial insights, and predictive budgeting.

CONCLUSION

The integration of AI and technology into the accounting and finance sectors is significantly reshaping employment opportunities for students. Automation and AI are streamlining routine tasks, leading to increased efficiency and accuracy, yet they also raise concerns about job displacement for positions reliant on manual processes. As these technologies evolve, a new demand emerges for

professionals who are equipped with a combination of technical skills—including data analysis, AI, and financial technology—paired with traditional knowledge in accounting and finance.

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