



6th International CEO Communication, Economics, Organization & Social Sciences Congress

The Effect of Artificial Intelligence on the Accounting and Financial Reporting

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ABSTRACT

Artificial intelligence (AI) has recently impacted global businesses' accounting and financial reporting systems. Artificial intelligence (AI) has been leveraged to enhance the precision of financial reports, automate tedious and repetitive tasks, minimize accounting expenses, and establish a more expeditious and efficient accounting infrastructure. However limited research had been conducted specifically on how AI has impacted the accounting and financial reporting system. This research aimed to analyze how artificial intelligence AI has influenced accounting organizations' efficiency and productivity. The investigation focused on, accountants, including managers in accounting, is using a descriptive research approach. The data required for the investigation I gathered using a structured/semi-structured question. Interviews with industry professionals, a review of pertinent academic literature and direct observations are the triangulation providing the data for the study. The use of artificial intelligence was found to have a positive impact on the efficiency of accounting and financial reporting processes. Artificial intelligence was found to have boosted the accuracy of financial reporting, decreased the need for manual labor, and streamlined the recording and analysis of transactions. AI was found to have improved the accuracy and reliability of long-term planning and cash flow forecasting. Researchers suggested that accountants and accounting companies regularly update their AI knowledge to boost the efficiency of accounting processes and reduce associated costs.

Keywords: Artificial Intelligence, Accounting, Financial Reporting, Efficiency, Accuracy.

INTRODUCTION

The emerging and novel field of artificial intelligence (AI) has recently attracted much attention. Artificial intelligence (AI) trains computers to detect, analyze, and respond appropriately to enable machines to mimic human behavior, particularly cognitive capacities (Tyagi, 2022). Artificial intelligence (AI) systems cannot entirely replicate a human's intelligence despite its power, precision, and occasional capacity to outperform human performance. AI can use big data that computers can only process to provide insights (Ryan, 2021). AI relies on machine learning to gather vast data from multiple sources and find basic patterns and relationships (Van Der Merwe & White, 2022). Financial accounting is incomplete without financial reporting based on the accounting cycle.

According to Chart 1 below, financial reporting includes entering a sizable amount of data from several sources to produce crucial financial statements and reports for various stakeholders. (Van Der Merwe & White, 2022). For publicly listed organizations, in particular, these financial reports must adhere to regulatory standards. Because it requires a lot of data and repetitive processes, it is time-consuming and expensive for organizations. Accounting specialists have long tried to employ modern technologies to speed up data processing and cut costs and time on arduous procedures. With no adverse effects on the bottom line or regulatory compliance, this has helped them attain efficiency and effectiveness in these operations.

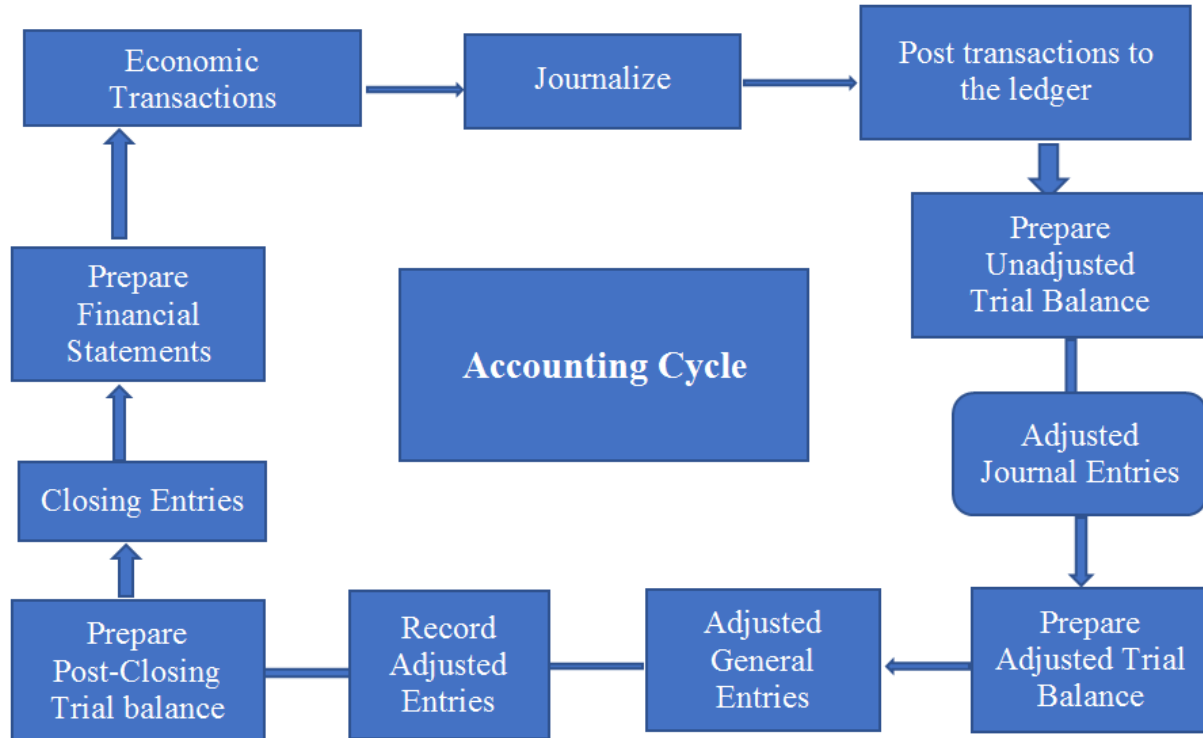
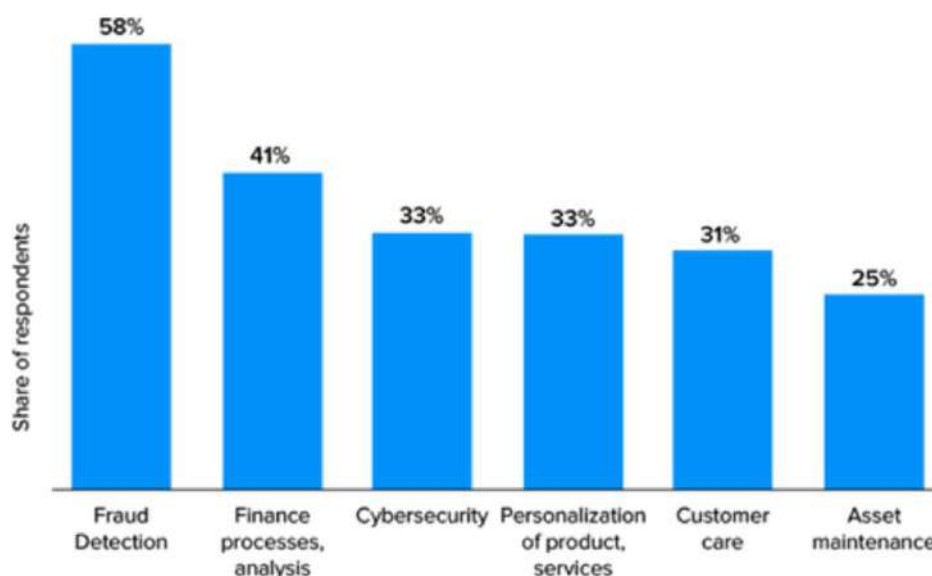


Chart 1. Accounting Cycle Process

The financial statements result from a collaborative effort between accounting staff and management. The auditor's role remains unchanged; they are tasked with lending trustworthiness to any information management releases that are not submitted to an independent audit.



Artificial intelligence applications in the global banking sector as of 2020

(AI Usage Financial Services Worldwide 2020, n.d.)

Most respondents say that the most effective application of artificial intelligence in the financial services sector is the improvement of fraud detection. To better understand client behavior, artificial intelligence enhances fraud detection by integrating supervised learning algorithms with unsupervised learning. Organizations can better spot and stop illicit activity with a deeper understanding of customer behavior.

LITERATURE REVIEW

Distinctive Financial Reporting Requirements

Financial reporting is a procedure that produces financial reports based on the firm's operations (Kieso et al., 2019). Financial reporting gives stakeholders an accurate picture of a company's finances, including sales, costs, profits, capital, and cash flow (Muntean et al., 202). Formal records also provide detailed insights into financial information. These financial reports are made available to all firm stakeholders, both internal and external. These financial reports include cash flow statements, comprehensive income statements, equity statements, and financial position statements. Note disclosures include the president's letter, supplemental schedules, prospectuses, government filings, management predictions, and more (Kieso et al., 2019). These reports are required to adhere to generally accepted accounting principles (GAAP) and commonly used accounting regulations. GAAP is required for these reports to be helpful. All businesses provide financial statements for different customers of financial information.



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But after being audited in compliance with legal standards, publicly traded corporations must publish yearly and quarterly earnings reports.

Being responsible to stakeholders

Stakeholders are direct stakeholders in the financial reporting process (Kieso et al., 2019). Those involved in or affected by the financial reporting process are considered stakeholders. This includes those involved in or affected by the preparation, use, examination, auditing, or monitoring of financial information. Every stakeholder in the reporting process is responsible for a unique task (Kieso et al., 2019). The financial reporting involves numerous stakeholders, including creditors, shareholders, management, securities commissions, stock exchanges, analysts, credit rating agencies, auditors, standard-setters, etc. For instance, to manage resources, creditors and investors rely on financial information; among other things, economic analysts and regulators help in resource allocation. Management creates financial statements, and auditors check them for GAAP compliance to provide them credibility. Financial statements for publicly traded companies must be audited. The difficulties that result from the principles-based rather than a rules-based approach to GAAP must be handled by those who develop accounting standards.

Despite favoring a rules-based approach, US GAAP has two shortcomings and a tendency to be prescriptive. Corporations can adopt accounting techniques they deem fit without restrictions if they take the rules literally (Kieso et al., 2019). Users might not receive the most critical information from this method. GAAP's principles-based approach requires adapting them to specific business scenarios. Instead of right and incorrect responses, the principles-based approach emphasizes professional judgment. This strategy focuses on a unified collection of complete and adaptable concepts to manage varied business situations.

Accounting Predictions and Expert Judgment

Unquantifiable objects are measured through accounting estimations. Some financial statement items need to be approximated because of measurement uncertainty. It's an estimate used in accounting. Accounting projections are subject to error and depend on expert judgment. in 2021 (Petkov). Due to managerial bias and estimating uncertainty, accounting estimates may be materially misstated. Sensitivity research, retroactive reviews, and challenging assumptions can reduce accounting estimate risks. It's crucial to disclose estimations. Auditors must be happy with the methodology, assumptions, and framework to accurately estimate a company's financial accounts (Petkov, 2021). They must also assess the estimates' aggressiveness or conservatism. Accounting estimates include warranties, goodwill, depreciation methods, valuable life, contingent liabilities, pensions, inventory, credit losses, bad debts, and more (Petkov, 2021).

Principles-based accounting allows expert judgment and adoption of accepted accounting concepts (Ivan, 2021). It better serves business, markets, and the public interest since transactions' economic essence can be accurately represented. Ivan provided several scenarios in which professional judgment is required at the accounting policy and measurement levels. For instance, when deciding how much something is worth, accountants must weigh the pros



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and cons of various valuation methods. Since machines cannot make judgments, humans must utilize their brains to make them. Deductive thinking, emotive expression, professional skepticism, and assessment are human abilities (Ivan, 2021). The data's true story is lost if machines make these decisions instead of humans. Machines do not always substitute human skills and professional judgment. A machine cannot learn courage, empathy, or body language. AI cannot replicate the human brain's unique, non-repetitive professional determinations.

Emerging Technologies and AI

The technologies are blockchain, cloud accounting, and RPA, most often mentioned in the literature on AI systems' possible use in financial reporting (Pimentel & Sinha, 2020). Blockchain technology is a peer-to-peer network with a shared ledger, cryptographic keys, and a computational method for online transactions and record storage. Blockchain technology's three differentiating property is immutability. Pimentel and Sinha (2020) recommend removing intermediaries and using a consensus mechanism to speed up accounting transaction publication. Furthermore, these transactions will be self-executed by smart contracts employing encryption. Universal entry bookkeeping will take the role of the current quadruple entry bookkeeping method, enabling each participant to record transactions faithfully, verifiably, and uniformly (Pimentel & Sinha, 2020).

Türegün (2022) examines Amazon Go's use of AI and the pros and cons of using blockchain for financial reporting. Accounting at Amazon Go uses AI. According to Türegün (2021), The combination of blockchain's distributed database technology with AI can change business processes by handling massive amounts of data, acting as a notary, summarizing data accurately, making it replaceable without human labor, reviewing data from several perspectives, and more. Blockchain-based financial reporting has several limitations (Coyne & McMickle, 2021). For example, unlike traditional monetary transactions, which are recorded in ledgers, blockchain-based digital currencies do not exist outside the blockchain, making verifying transactions more difficult.

CONCLUSION

In conclusion, the advancements in technology have indeed brought numerous benefits to business operations, including the accounting field. The use of high-speed data processing, AI, blockchain, RPA, and cloud accounting has improved the accuracy, efficiency, and effectiveness of accounting processes. AI, in particular, has shown promise in mimicking human cognitive functions and has been applied to various accounting activities.

Financial reporting, which is a crucial aspect of accounting, has seen initiatives to integrate AI technology. However, it is important to consider the ethical implications and potential drawbacks of relying solely on AI for financial reporting. AI's ability to mimic human thinking and emotions is still a subject of debate, and AI reports may not be covered by accounting requirements. Trust and control over AI systems will play a significant role in determining how and when AI is used for financial reporting.



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