

Integrating Artificial Intelligence into Accounting: The Case Study of Vic.ai

دمج الذكاء الاصطناعي في المحاسبة: دراسة حالة شركة Vic.ai

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Abstract:

The present study explores how accounting is being transformed using artificial intelligence (AI) through examining Vic.ai, a leading AI-based accounting solution. Vic.ai is a qualitative case study approach, the article assesses the technologies within Vic.ai and solutions offered in automating core accounting process such as managing invoices, approvals, and financial reporting. Findings indicate that Vic.ai uncovers how AI reduces processing time and cost while enhancing efficiency, accuracy, and scalability in accounting procedures.

This study contributes to current literature on AI and accounting by providing a platform-level perspective that bridges theory and practice. It also offers practical advice for practitioners who wish to use AI tools, and for teachers and regulators who wish to gain insight into the ongoing digitization for the profession.

Keywords: Artificial Intelligence; AI Technologies; Accounting.

Jel Classification Codes: M41 ; O33.

ملخص:

تستكشف الدراسة الحالية كيف يتم تحويل المحاسبة باستخدام الذكاء الاصطناعي من خلال دراسة شركة Vic.ai، وهو حل محاسبي رائد قائم على الذكاء الاصطناعي، Vic.ai يمثل نهج دراسة حالة نوعية، ويقيم هذا المقال التقنيات المستخدمة في شركة Vic.ai والحلول المقدمة لأتمتة العمليات المحاسبية الأساسية مثل إدارة الفواتير والموافقات والتقارير المالية، وتُشير النتائج إلى أن Vic.ai يوضح كيف يقلل الذكاء الاصطناعي من وقت وكلفة المعالجة مع تحسين الكفاءة والدقة وقابلية التوسع في الإجراءات المحاسبية.

تساهم هذه الدراسة في الأدبيات الحالية حول الذكاء الاصطناعي والمحاسبة من خلال تقديم منظور على مستوى المنصة يجسر بين النظرية والتطبيق، كما تقدم نصائح عملية للممارسين الذين يرغبون في استخدام أدوات الذكاء الاصطناعي، وللمعلمين والمنظمين الذين يرغبون في فهم الرقمنة الجارية للمهنة.

الكلمات المفتاحية: ذكاء اصطناعي؛ ذكاء اصطناعي تكنولوجي؛ محاسبة.

الرمز Jel: M41 ؛ O33

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1. Introduction

Accounting is undergoing a profound transformation driven by rapid technological advancements, particularly the rise of Artificial Intelligence (AI). Beyond enhancing efficiency and accuracy, AI is reshaping the very nature of the profession. The demand for faster and more reliable financial processes has accelerated AI adoption, as businesses seek to streamline operations and accountants aim to enhance productivity. Rather than replacing human expertise, AI complements it by automating routine tasks, processing large volumes of data, and generating actionable insights. This enables accountants to devote greater attention to strategic analysis and complex problem-solving, thereby reinforcing their role as key contributors in the digital economy (accountancyage, 2025).

To illustrate these transformations, this paper examines Vic.ai, a leading AI-powered accounting platform that demonstrates how AI technologies are applied in real-world accounting practices. Studying Vic.ai is important because it provides a practical example of how accounting is adapting to the changes brought about by AI. Vic.ai empowers finance teams to reduce manual workload, enhance accuracy, and scale processes efficiently—enabling the transformation from task-driven roles to strategic operation, real-time decision-making and improved oversight (Vic.ai, AP automation, reimagined, 2025).

The objective of this study is to shed light on the interplay between AI and accounting, focusing on how accounting can leverage AI technologies to streamline procedures, reduce costs, and enhance efficiency and effectiveness. To achieve this objective, the study employs a case study approach based on Vic.ai which serves as a relevant and illustrative example because it demonstrates how AI technologies are implanted in real-world accounting contexts.

The following sections of the paper are organized as follows Section 2 reviews the existing literature on AI in accounting and sets the conceptual framework. Section 3 outlines the methodology. Section 4 presents the Vic.ai case study. Section 5 discusses the findings in light of prior research, and Section 6 concludes with implications for practice and directions for future research.

2. Literature Review

Artificial intelligence emerged in the 1950s, initially emphasizing symbolic reasoning and the development of expert systems. In the past two decades, however, the field has increasingly embraced data-driven methodologies, most notably machine learning and deep

learning, which facilitate the extraction of patterns from large-scale datasets and the execution of complex tasks (Shao, Zhao, Yuan, Ding, & Wang, 2022).

But this evolution in AI hasn't been limited to computer sciences; it has also extended to society, education, and professional practice. The rapid progress of AI has reshaped entire industries, altered everyday activities, and ignited debates about humanity's future in an era dominated by intelligent technologies. Whether through virtual assistants embedded in smartphones or self-driving cars operating on urban roads, AI now constitutes a central element of contemporary life (Josh, 2024).

Accounting, like many other fields, has not been immune to the changes brought about by AI. AI is exerting a profound influence on accounting by reshaping conventional approaches and enhancing both accuracy and efficiency. Routine tasks such as data entry and filtering can now be performed automatically, while processes like bank reconciliation are streamlined, reducing the risk of errors and allowing accountants to devote more attention to analytical and value-adding activities. Moreover, AI-driven data analysis equips accountants to manage vast volumes of financial information, extract meaningful insights, and provide clients with precise and strategically oriented financial guidance (Peng, et al., 2023).

But in order to gain a better understanding of how AI is reshaping accounting, it is necessary to look more closely at the underlying technologies—such as machine learning, natural language processing, and intelligent automation—that drive improvements in accuracy, efficiency, and analytical capacity.

One the main ways AI is changing accounting is through machine learning (ML). ML relies on algorithms capable of learning from data and generating predictions or decisions accordingly. Within accounting, these algorithms are applied to functions such as fraud detection, risk evaluation, and financial forecasting. As they are exposed to larger datasets over time, their performance improves, resulting in more accurate and insightful financial analysis (Odonkor, Kaggwa, Uwaoma, Hassan , & Farayola, 2024).

Alongside machine learning, natural language processing (NLP) represents another major strand of AI with important applications in accounting. NLP allows computers to interpret and make sense of human language. Within accounting, NLP plays a key role in handling financial documents by extracting essential information from diverse sources such as invoices, receipts, and regulatory reports, thereby transforming unstructured text into

usable data. Incorporating NLP into accounting systems accelerates document processing while simultaneously improving accuracy and ensuring compliance (Goel & Singh, 2025).

In addition to ML and NLP accounting is also being transformed by intelligent automation, which combines robotic process automation (RPA) with AI capabilities. Automation powered by AI has significantly improved the efficiency and effectiveness of traditional accounting practices. Tasks such as data entry, reconciliation, and report generation can now be carried out more quickly and with greater accuracy, streamlining day-to-day operations. This shift not only reduces the time required for routine activities but also allows accountants to dedicate more attention to strategic, value-adding responsibilities. By moving resources away from manual work toward higher-level analysis and decision-making, organizations are able to increase productivity and enhance the overall performance of their accounting functions (Oviya, Sharadha, Bhuvaneswari , Vijayalakshmi, & Sushma K, 2024).

To sum up, we can say that machine learning, natural language processing, and intelligent automation exemplify the diverse ways in which AI is reshaping accounting practices. Together, these technologies move accounting beyond its traditional focus on manual data handling, enabling faster, more accurate, and more insightful processes. By automating routine tasks and strengthening analytical capabilities, AI frees accountants to engage in higher-value activities such as strategic advising and decision support. Ultimately, these innovations are not only transforming daily accounting operations but also redefining the role of accountants within organizations.

While AI is improving accounting especially in terms of effectiveness accuracy, its integration is not without challenges. A major challenge in applying AI to accounting lies in the limited transparency of its algorithms, commonly known as the ‘black box’ problem. While these systems are capable of generating complex decisions from vast datasets, the reasoning behind their outputs is often opaque. This lack of clarity raises accountability issues, as it becomes difficult to identify responsibility for AI-driven outcomes. Enhancing transparency is therefore essential to make AI decisions more explainable and accountable (Adalakun, Majekodunmi, & Akintoye, 2024).

But the challenges do not stop at algorithmic transparency; they also extend to broader issues as skill gaps, data security, and ethical concerns. One key issue is the skill gap created by AI, which demands substantial training and education for both practicing

accountants and accounting educators. In addition, the heavy reliance on AI to handle vast amounts of financial data heightens concerns over data privacy and security, as maintaining the confidentiality and integrity of financial information becomes more difficult with increasingly complex systems. Finally, AI integration in accounting introduces important ethical considerations, particularly in decision-making, highlighting the urgent need for clear ethical guidelines and regulatory frameworks (Odonkor, Kaggwa, Uwaoma, Hassan , & Farayola, 2024).

Overall, the literature demonstrates that AI is transforming the very nature of accounting. Technologies such as machine learning, natural language processing, and intelligent automation have enhanced efficiency and accuracy, while also raising concerns about transparency, skills, data security, and ethics. These findings show that while AI provides tremendous opportunities for the profession, its adoption is not without challenges.

3. Methodology

Through qualitative examination of existing data, this research maps AI's influence on accounting, with particular attention to how intelligent platforms are transforming standard practices. To achieve this, we adopt a case study approach, focusing on Vic.ai as a real-life example of AI adoption in accounting.

4. Vic.ai: Case Study

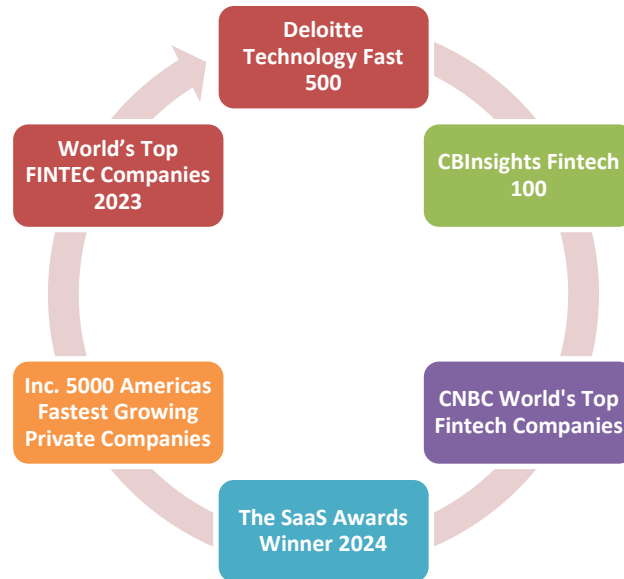
In this section we examine Vic.ai, a leading AI-powered accounting platform, analyzing its role in reshaping traditional accounting practices.

4.1 Overview

Vic.ai is an accounting platform that was founded in 2017 in Norway by Alexander HAGERUP and Kristoffer ROLI. It designed to automate accounts payable (AP) and finance workflows. It utilizes deep learning to process invoices, manage approvals, match purchase orders, and offer real-time analytics—all with minimal human intervention. Unlike traditional rule-based systems, Vic.ai's algorithms continuously learn from a vast dataset to improve accuracy and efficiency over time (Vic.ai, 2025).

Vic.ai has received numerous awards for excellence and industry leadership in AI-powered finance, including the following recognitions:

Figure1: Awards and Recognitions received by Vic.ai



Source: Author Participation Based on (Vic.ai, Awards and recognition, 2025)

4.2 AI technologies Used by Vic.ai

In this section we highlight the core AI technologies employed by Vic.ai in the development of its products and services

Table01: AI technologies Used by Vic.ai

AI Technology	Function& Impact
Deep Learning Models	Template-free, highly accurate invoice data extraction (header & line-item).
Computer Vision	Reads data from diverse input formats (PDFs, scans, handwritten, emails).
Confidence Scoring& ML Feedback	Ensures reliability; improves over time via human-validated corrections.
Autopilot (AutonomousProcessing)	Handles extraction, coding, approvals without human oversight.
AI PO Matching & Discrepancy Detection	Matches invoices to POs/receipts, flags anomalies.
VicInbox (NLP & Email Processing)	Manages vendor communications, categories, and invoice ingestion via emails.
VicCard (AI Expense Control)	Automates expense tracking, compliance, and GL coding.
VicAnalytics (AI Insights)	Provides metrics and dashboards for AP optimization.

Source: Author Participation Based on (Vic.ai, How Vic.ai works, 2025) (intercom, 2025) (globenewswire, 2025)

As shown in Table01, Vic.ai leverages a combination of AI technologies which helps in reducing manual data entry and allows accountants to focus more on strategic analysis rather than routine tasks.

4.3 Vic.ai Products

Using the AI technologies mentioned above Vic.ai provides concrete products tailored to the needs of accounting and finance professionals. In this section we shed light on some of key products of Vic.ai.

a. Autonomous Invoice Processing

This product deploys AI to fully automate capture, coding, validation, and approval routing—across all formats, with minimal human oversight. It significantly accelerates processing speed while maintaining a high level of accuracy, allowing teams to redirect efforts toward more strategic accounting tasks (Vic.ai, AI-powered invoice processing, 2025).

b. Autonomous Approval Flows (including Autopilot)

Vic.ai enables intelligent, AI-driven approval workflows. When confidence levels are sufficiently high, its Autopilot feature can autonomously finalize invoice approvals without manual review. This functionality enables safer straight-through processing and helps accounting teams scale operations without increasing headcount(Vic.ai, What is Accounting Autopilot?, 2025)(Vic.ai, How Vic.ai works, 2025).

c. VicInbox

This solution automates the management of vendor communications. Using AI to categorize emails, prioritize actions, detect duplicates, and even draft data-informed responses, VicInbox transforms inbox management from a bottleneck into a streamlined process—saving time and reducing errors (Vic.ai, AI-powered inbox management, 2025).

d. VicPay and Vendor Portal

VicPa brings payments into the Vic.ai ecosystem by facilitating secure, efficient B2B transactions (ACH, virtual cards, checks) and capturing early payment discounts—all without U.S. transaction fees or extra file setup. The accompanying Vendor Portal enables self-service vendor onboarding, real-time invoice tracking, and payment preferences management, reducing administrative overhead and improving vendor experience (Vic.ai, Vic.ai Launches VicPay™, Vendor Portal, and VicAgents™, 2025).

e. VicAgent (Agentic AI Partners)

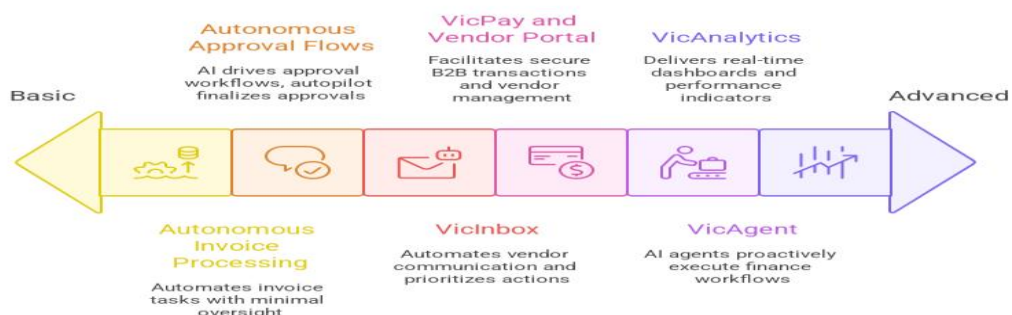
VicAgents represent a shift from automation to intelligent execution. These AI agents—such as the live VicInbox, Contract Agent (monitors contract compliance), and the Analytics Agent (responds to natural-language queries)—act autonomously on finance workflows using real-time ERP data. They extend Vic.ai’s platform into proactive decision support and execution (Vic.ai, Vic.ai Launches VicPay™, Vendor Portal, and VicAgents™, 2025), (Vic.ai, Q2 product launch: From automation to agentic AI, 2025).

f. VicAnalytics

This analytics platform delivers real-time dashboards and performance indicators—such as processing cycle times, accuracy rates, bottlenecks, and vendor behavior—enabling finance teams to diagnose inefficiencies and drive process improvements with data-driven insights (Vic.ai, Make confident decisions with real-time AP insights, 2025).

Figure2 below provides a summary of KMPG’s Clara main features and technological components

Figure2: Vic.ai Product Ecosystem



Source: Author Participation using napkin.ai

5. Discussion

The case of Vic.ai clearly shows that AI is radically changing accounting. In other words, accounting has not been immune to the changes brought about by AI and is adapting its procedures accordingly.

The deployment of AI technologies such as deep learning, computer vision, and intelligent workflows demonstrates how accounts payable can transition from traditional manual processing to adaptive systems that learn from data over time.

Through its unique suit of products Vic.ai delivers clear value to customers by reducing manual work and improving accuracy in financial processes. Automated invoice

processing and approval flows save time and cut costs, while tools like the Vendor Portal streamline communication with suppliers. The platform's AI agents and analytics provide proactive insights and real-time visibility, enabling finance teams to shift from routine data entry to more strategic decision-making.

6. Conclusion

This study has discussed the revolutionary impact of AI on accounting through the case of Vic.ai, a platform that illustrates how bleeding-edge technologies can redesign fundamental financial workflows. The review shows that AI does not simply automate basic accounting operations but reinvents workflow by improving accuracy, scalability, and decision-making capacity. By exploring Vic.ai's technological foundation and products, this paper demonstrates how AI tools are already enabling accountants to move beyond routine data entry and focus on strategic and analytical roles.

This study adds by providing a platform-level perspective on AI adoption in accounting, bridging the gap between conceptual discussions in literature and real-world applications in practice. For practitioners, the findings of this study highlight the opportunity of leveraging AI to achieve cost reductions, efficiency gains, and value-added decision support. For researchers, this case study identifies the need for further research on the organizational, ethical, and professional implications of AI adoption in accounting practice. Research can extend this study by, for example, contrasting different AI-enabled platforms, investigating long-term implications for professional identity, or exploring regulatory matters.

In general, the case of Vic.ai exemplifies the broader trend of AI in accounting: a shift away from task-based, manual functions and toward adaptive, intelligence-driven systems that render the profession more pertinent to a digital economy.

❖ Bibliography

- Adelakun, B., Majekodunmi, T., & Akintoye, O. (2024). AI and ethical accounting: Navigating challenges and. *International Journal of Advanced Economics*, pp. 224-241.
- accountancyage, a. (2025). *How AI is revolutionising Accounting*. Retrieved 08 22, 2025, from accountancyage.com: <https://www.accountancyage.com/2024/03/12/how-ai-is-revolutionising-accounting/>
- globenewswire, g. (2025). *Vic.ai*. Retrieved 08 18, 2025, from globenewswire.com: <https://www.globenewswire.com/news-release/2024/12/17/2998117/0/en/Vic-ai-Ushers-in-the-GenAI-Era-for-Accounting-Teams-with-Q4-Product-Innovations.html>

- Goel , N., & Singh, S. (2025). AI-Driven Accounting Automation: Leveraging NLP for Financial. *International Journal of Research in Modern Engineering*, 13(04), pp. 18-28.
- intercom, i. (2025). *Engaging Autopilot*. Retrieved 08 18, 2025, from intercom.help: <https://intercom.help/vicai/en/articles/5117410-engaging-autopilot>
- Josh, M. (2024). The Advancement of Artificial Intelligence. *SSRN Electronic Journal*, pp. 96-99.
- Odonkor, B., Kaggwa, S., Uwaoma, P., Hassan , A., & Farayola, O. (2024). The impact of AI on accounting practices: A review: Exploring how artificial intelligence is transforming traditional accounting methods and financial reporting. *World Journal of Advanced Research and Reviews.*, pp. 172-188.
- Oviya, S., Sharadha, N., Bhuvaneswari , E., Vijayalakshmi, S., & Sushma K, S. (2024). The Impact of Automation and Ai in Revolutionising Traditional Accounting Methods. *Journal of Informatics Education and Research*, 04(02), pp. 1843-1856.
- Peng, Y., Ahmad, S., Ahmad, A., Al Shaikh, M., Daoud, M., & Alhamdi , F. (2023). Riding the Waves of Artificial Intelligence in Advancing. *Sustainability*, pp. 1-12.
- Shao, Z., Zhao, R., Yuan, S., Ding, M., & Wang, Y. (2022). Tracing the evolution of AI in the past decade and forecasting the emerging trends. *Expert Systems with Applications*, 209.
- Vic.ai, V. (2025). *AI-powered inbox management*. Retrieved 08 20, 2025, from Vic.ai: <https://www.vic.ai/ap-inbox>
- Vic.ai, V. (2025). *AI-powered invoice processing*. Retrieved 08 20, 2025, from vic.ai: <https://www.vic.ai/accounts-payable/invoice-processing>
- Vic.ai, V. (2025). *AP automation, reimagined*. Retrieved 08 22, 2025, from Vic.ai: https://www.vic.ai/?utm_source=chatgpt.com
- Vic.ai, V. (2025). *Awards and recognition*. Retrieved 08 17, 2025, from Vic.ai: <https://www.vic.ai/about-us>
- Vic.ai, V. (2025). *How Vic.ai works*. Retrieved 08 17, 2025, from vic.ai: <https://www.vic.ai/how-it-works>
- Vic.ai, V. (2025). *Make confident decisions with real-time AP insights*. Retrieved 08 20, 2025, from Vic.ai: <https://www.vic.ai/analytics-and-insights>
- Vic.ai, V. (2025). *Q2 product launch: From automation to agentic AI*. Retrieved 08 20, 2025, from Vic.ai: https://www.vic.ai/news/vic-ai-launches-vicpay-vendor-portal-and-vicagents-accelerating-the-shift-to-autonomous-finance?utm_source=chatgpt.com
- Vic.ai, V. (2025). *Vic.ai Launches VicPay™, Vendor Portal, and VicAgents™*. Retrieved 08 20, 2025, from Vic.ai: <https://www.vic.ai/news/vic-ai-launches-vicpay-vendor-portal-and-vicagents-accelerating-the-shift-to-autonomous-finance>
- Vic.ai, V. (2025). *What is Accounting Autopilot?* Retrieved 08 20, 2025, from Vic.ai: <https://www.vic.ai/blog/what-is-accounting-autopilot>