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Digital Transformation Impacts Organisational Change in the Role of Accountants and Auditors: An Exploratory Study

Abstract

Purpose

This study explores the impact of artificial intelligence (AI) on accounting and auditing professionals as businesses navigate digital transformation.

Design/methodology/approach

A qualitative research approach was adopted, analysing data from 10 podcasts and 17 semi-structured interviews using NVivo software. Key themes were identified to provide insights into AI's influence on organisational change in accounting practices.

Findings

The research constructs a thematic framework comprising three aggregate dimensions: triggers of digital transformation in accounting practices, opportunities and challenges in transforming accounting practices, and changing routines for accounting professionals. The results are further interpreted using Lewin's 3-Step Model of Organisational Change to comprehend the impact of AI and understand how accountants can adapt to these technological changes to sustain their practices.

Originality

This study provides a good understanding of the social shifts towards utilising AI in increasingly automating accounting tasks, reshaping professional roles, and creating both opportunities and challenges. AI enhances efficiency in bookkeeping, reporting, auditing, and risk analysis but also raises concerns about data integrity and trust. Blockchain technology emerges as a potential solution, enhancing transparency, security, and reliability in AI-enabled accounting systems.

To remain relevant, accounting professionals must bridge digital skill gaps and adopt interdisciplinary collaboration. As AI continues to evolve, blockchain integration could reinforce trust and accountability, shaping the future of accounting and auditing.

Keywords: Artificial Intelligence, Accounting professionals; Digital transformation; Blockchain technology, Future Work

1 Introduction

In recent years, Artificial Intelligence (AI) has attracted growing attention, shaping how we live and work. The rapid advancement of AI technologies is reshaping industries, and the accounting profession is no exception (ThomsonReuter, 2024). AI is now widely used across industries. In agriculture, it supports greenhouse automation, crop yield prediction, and soil monitoring. In healthcare, neural networks aid medical diagnosis and patient evaluations. Security systems use AI for speech and face recognition. Aviation relies on AI for simulated pilots and air traffic control, while maritime navigation benefits from AI-driven situational awareness. In marketing, e-commerce, and entertainment, AI analyses customer behaviour to enhance user experiences on platforms like Netflix and Amazon. In finance, algorithmic trading is revolutionising investment strategies through AI-driven decision-making (Hasan, 2021).

With the ongoing progression of AI, the landscape of accounting is expected to undergo a significant technological transformation (Carrasco & Romi, 2022) to enhance accuracy, efficiency and informed strategic decision-making. With the help of AI, a large amount of work such as data input, financial statement preparation, fraud detection, tax calculations and regulatory compliance can be handed over to the computer to complete (Li & Zheng, 2018), allowing accountants to focus on what truly matters. It's not just about efficiency; it's about precision, effectiveness, and sound decision-making using automation technology (Takyar, 2025).

A recent report from KPMG (2024) indicates that the transformation brought about by AI will lead to a paradigm shift to redefine the role of auditors and reshape the accounting industry as a whole to move from the "digital age" to the "AI age" in which nothing will ever be quite the same again. AI has made significant inroads into the fields of accounting and auditing, transforming how financial data is processed, analysed and audited. For example, KPMG has partnered with IBM's Watson AI to develop advanced AI-powered audit tools, while PricewaterhouseCoopers (PwC) has introduced Halo, an analytics platform that integrates AI and augmented reality capabilities. Deloitte has developed Argus for AI-driven insights and Optix for data analytics, enhancing audit efficiency. Meanwhile, Ernst & Young (EY) has developed EY Helix GL Anomaly Detector (GLAD), an algorithm-based tool designed to identify fraudulent journal entries and provide explanations (Kokina & Davenport, 2017). In March 2024, Sage unveiled CoPilot, an AI-powered tool designed to streamline payment tasks and ensure compliance. Similarly, in May 2024, Wolters Kluwer Tax & Accounting introduced enhanced AI functionalities to support tax and accounting professionals (MordorIntelligence, 2025).

As AI continues to develop and innovate in natural language processing, cognitive capabilities, and predictive analytics, it has the potential to revolutionise the accounting industry from basic automation to more sophisticated applications to deliver comprehensive financial insights and decision-making support. Therefore, the purpose of this study is to explore the impact of AI on accounting and auditing professionals as businesses navigate digital transformation.

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It is motivated by three observations. First, the accounting industry is experiencing a fundamental transformation as artificial intelligence in accounting reshapes traditional practices and workflows to enhance their service offerings, improve data security, and streamline operations (MordorIntelligence, 2025). Second, the lack of empirical research on AI’s impact on accounting professionals presents an opportunity to explore innovative solutions for sustaining AI-enabled accounting systems (Jackson & Allen, 2024). This is especially crucial as human factors have been identified as the greatest challenge to the success of AI initiatives in a report published by the Institute of Management Accountants (Barone & Sherry, 2024). Third, accounting practices need to improve and respond to digital transformation by using new technological tools because the importance of using information technology in accounting is now at the forefront of accounting research (Han et al.,2023). As such, this study explores two main research questions: 1) How will accounting practices evolve with the integration of AI tools? 2) How can accounting professionals bridge digital skills gaps to remain relevant in their future roles?

The findings of this study contribute to the existing AI literature in accounting in two primary ways. Firstly, this paper constructs a thematic framework encompassing three aggregate dimensions: triggers of digital transformation in accounting practices, opportunities and challenges in accounting practice transformation, and changing routines for accounting professionals. This framework provides a valuable tool for researchers, practitioners, and policymakers seeking to navigate and comprehend this evolving landscape. The results are further interpreted using Lewin’s 3-Step model of organisational change—unfreezing, moving, and refreezing—providing a clearer understanding of the changes in accounting practices brought about by AI technologies through different stages of the change process. Secondly, our research extends the current AI literature by specifically focusing on its implications for the accounting profession. It sheds light on the ongoing processes of digital change stimulated by AI technology, illuminating potential benefits, challenges, and future trajectories associated with AI adoption in accounting.

The subsequent sections of this paper are organised as follows: Section 2 provides a literature review focusing on AI applications in accounting practices. Section 3 explicates the research method and outlines the data collection processes. Section 4 presents the findings from the data analysis. Following that, section 5 critically evaluates the findings and discusses the contributions in relation to the extant theoretical literature. Then, section 6 summarises this study.

2 Literature review

2.1 Challenges in accounting and auditing

Accounting dates back thousands of years, evolving alongside trade and economic systems, ultimately aiming to help people make good decisions about the allocation of resources and hold others to account for their decisions (ICAEW, 2018). Today, accounting remains essential for businesses, governments, and individuals, ensuring financial accuracy, regulatory compliance, and economic stability. However, conventional accounting and auditing practices face several challenges that impact efficiency, accuracy, and decision-making. From bookkeeping and financial

statement preparation to auditing assessments, the processes are often labour-intensive and require significant manpower and resources. This often leads to inefficiencies, delays, and overtime work, which increases fatigue and the likelihood of errors. Additionally, small and medium-sized enterprises (SMEs) often fail to separate incompatible roles, allowing financial personnel to handle both cash flow and bookkeeping, which increases the risk of financial mismanagement and fraud (Li & Zheng, 2018). Furthermore, traditional statistical models, such as multiple regression, require numerous assumptions that may not adequately address real-world complexities, especially in the era of big data, where financial information is increasingly massive and intricate (Yi et al., 2023).

Given these challenges, the adoption of AI-driven accounting solutions is crucial to help automate repetitive tasks, enhance decision-making with data-driven insights, and improve financial accuracy while reducing fraud risks (KPMG, 2024).

2.2 Types of AI technologies in accounting and auditing

AI has been an aspiration of computer scientists since the 1950s. Most of the AI research in accounting and auditing has involved expert systems technology (Baldwin et al., 2006) in the 1980s and 1990s. These systems attempt to capture the explicit knowledge of experts, and build it into rules engines that would make decisions or recommendations (ICAEW, 2018). Kokina & Davenport (2017) refer to rule-based expert systems as the earlier version of AI and linear regression analysis as analytics. These earlier versions of AI and analytical techniques make it relatively easy for human observers to understand the relationships between inputs, transformations and outputs models.

Based on the existing literature (Hasan, 2021; Almufadda and Almezeini, 2022; Kassar and Jizi, 2025; Takyar, 2025), the most commonly mentioned AI solutions in the accounting and auditing domain include not only expert systems mentioned above but also technologies like Machine Learning (ML), Natural Language Processing (NLP), Robotic Process Automation (RPA), Fuzzy Logic, and Generative AI.

Machine Learning

The expert systems had some success, but the earlier version of AI could not cope with complex or ambiguous circumstances. Recent successes in AI take a very different approach, utilising pattern recognition technology to identify trends within the data using machine learning techniques, based on artificial neural nets and deep learning to enhance AI's capabilities in natural language processing, translation, machine vision and game playing (ICAEW, 2018). This process typically involves feeding large amounts of data into a machine and requires significant computational power to allow the machine to rationalise the data received to learn new patterns and update its own decision-making (Trintech, 2024). These capabilities are particularly important for organisations aiming to exploit the increasing amount of big data that is available to them. Humans alone simply cannot analyse and extract insight from the volumes of big data being created today (ICAEW, 2018).

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ML plays an important role in accounting and auditing by offering useful capabilities. It uses classification models, like decision trees or support vector machines, to automatically sort financial data, such as transactions or invoices, into the right categories. This helps speed up data processing and improve efficiency. ML also helps detect unusual patterns or outliers in financial data, which can assist in spotting potential fraud or errors early. Additionally, predictive modelling uses past data and other factors to predict future financial outcomes, like cash flow or revenue. This allows organizations to make better decisions and plan more accurately. Overall, these ML techniques improve the accuracy, efficiency, and analysis of financial processes in accounting and auditing (Takyar, 2025). Infosys BMP helps its European client transform the accounts payable process with an AI/ML model, the initiative improved efficiency by 30%, reduced processing time to 2 days, and drastically minimised backlogs, delivering a substantial \$300K in cost savings (InfosysBPM, 2025).

Natural Language Processing

NLP is a field of study that focuses on teaching artificial models to understand and process human speech, to replicate human natural language and communication methods (Deloitte, 2018), revolutionising the accounting industry by enabling computers to comprehend and interpret human language in both written and spoken forms (MordorIntelligence, 2025). It helps by extracting and analysing data from unstructured documents like contracts, financial reports, and emails. This makes the document review process faster and more efficient, while also improving compliance checks. Deep learning plays a vital role in NLP for sentiment analysis, which evaluates the tone or sentiment in financial news, social media posts, and customer reviews. This can provide useful insights into market sentiment and help professionals make better investment decisions. By using NLP, accounting and auditing professionals can manage large amounts of text-based data more effectively and extract key information to guide their decision-making (Takyar, 2025)

Robotic Process Automation

RPA is commonly used in accounting and auditing to improve efficiency and streamline operations. These bots are programmed to mimic human actions and perform tasks quickly and accurately using specific algorithms and rules. This reduces the need for manual labour. Some of the common algorithms used in RPA include rule-based algorithms for task instructions, Optical Character Recognition (OCR) to extract data from documents, and data validation algorithms to ensure accuracy (Takyar, 2025). RPA works best when completing structured, repetitive activities like data entry or, when it comes to financial close, reconciliations and reporting (Trintech, 2024).

Fuzzy Logic

Fuzzy logic is used in accounting and auditing to handle uncertainty and imprecision in decision-making, especially when data or conditions are unclear. It is a technique of reasoning that resembles human thinking since its methodology mimics how humans make decisions (Hasan, 2021). Fuzzy systems can be very useful for

materiality analysis, management fraud risk assessment and various other qualitative issues (Baldwin et al., 2006). It helps by categorising information in a more flexible way. For example, risks can be classified as 'high,' 'medium,' or 'low,' instead of using exact numbers. Fuzzy logic uses algorithms like the Mamdani and Sugeno models to create systems that can process data with varying degrees of certainty. These systems are useful for different types of data. In accounting, fuzzy logic is particularly helpful in evaluating risks, assessing creditworthiness, and making decisions based on qualitative data, which can be hard to quantify. This approach allows for more thoughtful and context-based decision-making, complementing traditional numerical analysis. It is especially useful in situations where the usual true/false logic is not enough due to the uncertain or ambiguous nature of the data (Takyar, 2025).

Generative AI

Recently, generative AI has attracted significant attention among scholars, workers, companies and governments for its potential economic impact. The integration of GenAI in the workplace will have fundamental implications for the internal organisation of firms (Dell'Acqua, Kogut & Perkowski, 2025), particularly in knowledge-intensive domains (Dell'Acqua et al., 2023). The recent study from Brynjolfsson and Raymond (2025) indicates that access to GenAI can increase the productivity of individual workers and improve their experience at work. Although GenAI is a relatively new technology, businesses are moving quickly to integrate it into their business processes. According to KPMG (2024), currently, 30% of companies are running pilot programs with GenAI, 11% are actively implementing it, and 2% have already adopted it on a wide scale among the 1800 companies they have surveyed. Industry leaders are advancing even faster, with 30% selectively adopting GenAI and 8% implementing it widely. In the U.S., companies are ahead of the curve—15% have already adopted GenAI, compared to 11% globally. The report further indicates that over the next three years, adoption is expected to accelerate significantly.

GenAI's ability to process and analyse vast amounts of financial data made it a vital tool for modern accounting practices (MordorIntelligence, 2025). Unlike traditional AI, which relies on exact term matches, GenAI understands human language patterns, allowing it to retrieve relevant information based on context. This makes it a powerful search tool, comparison engine, and anomaly detector, helping organisations quickly identify inconsistencies, fraud, and unusual financial trends. Additionally, GenAI can generate tailored financial reports and audit summaries, reducing manual workload and increasing efficiency. Its user-friendly interface enables executives and finance professionals to leverage AI insights without deep technical expertise, broadening accessibility across organisations. By providing real-time analysis and recommendations, GenAI enhances strategic decision-making, giving businesses a competitive edge in financial services through faster reporting, risk assessment, and fraud detection (KPMG, 2024).

Market leaders are focusing on developing AI-powered assistants and copilots to enhance automation and decision-making capabilities in accounting processes, for

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example, in 2024, Accenture and Oracle partnered to speed up GenAI adoption in the financial sector, using Oracle Cloud Infrastructure (OCI) to help organisations maximise their data. Sage Group launched Sage Copilot, an AI assistant for accounting, finance, and HR. It automates tasks, detects errors, and provides real-time insights to help businesses make smarter decisions. (MordorIntelligence, 2025).

In light of the above, at its core, AI in accounting refers to the application of machine learning, natural language processing and other AI technologies to enhance and streamline accounting processes (Odonkor et al., 2024). The practice of predicting future business events has a long tradition in accounting and has been studied extensively for decades (Munoko et al., 2020). Recent advances in AI have significantly expanded these capabilities. Accountants can now forecast future trends and provide more insightful financial advice by leveraging AI’s predictive analytics capabilities, shifting from a purely historical perspective to a more forward-looking approach, representing a fundamental change in the role of accounting within businesses (Kureljusic and Karger, 2024).

According to Kureljusic and Karger (2024), many accounting systems are yet to catch up with current technological developments. The predictive models of AI in accounting rely on statistical modelling, machine learning to find the correlation in historical data and predict future outcomes (Munoko et al., 2020). These models are particularly valuable in tasks such as fraud detection, cash flow forecasting, bad debt prediction, and audit risk scoring, all of which depend on high-quality numerical datasets. In such cases, the accountant’s role centres on interpreting the forecasts, assessing their reliability, and translating them into actionable business insights. As AI evolves, generative AI utilises large language models or generative adversarial networks to create new content or outputs based on learned patterns (Brynjolfsson and Raymond,2025). It is especially useful when accountants need to generate reports, draft documentation, or synthesise content from structured and unstructured data. This capability accelerates document-heavy processes, improves client communications, and supports knowledge sharing.

2.3 AI use cases in Big 4 accounting firms

Each of the Big 4 accounting firms has invested heavily in technological innovation (Kokina & Davenport, 2017), has embraced AI to enhance its operations.

Deloitte has developed several AI-powered tools, including Argus for auditing, Similarity Observant Network Analytics Report (SONAR) for identifying database errors and supporting tax and legal operations, DocQMiner for contract analysis. It also uses chatbots and deep learning-based voice analysis through the Behaviour and Emotional Analytics Tool (BEAT) (Hasan, 2021). Deloitte has internally developed an automated document review platform using cognitive technologies, allowing their practitioners to evaluate an entire population of contracts to find key information (ThomsonReuter, 2024)

EY leverages AI for fraud detection, using NLP to extract contract information and machine learning to detect anomalies with high accuracy. Its Fraud Investigation and Dispute Service (FIDS) was able to identify questionable invoices with a 97%

accuracy rate (Hasan, 2021). They are using AI to analyse and extract data from unstructured data, such as contracts, and analyse large data sets to help respond to the risk of material misstatement due to fraud (ThomsonReuter, 2024).

KPMG integrates AI through its KPMG Ignite platform, utilising IBM Watson for cognitive computing and developing tools like Dynamic Risk Assessment for risk evaluation and K-analyser for tax analytics. It's K-analyser, a tax analytic program based on RPA technology that can assess thousands of transactions in a span of minutes. Its trusted AI framework helps its member firms' client design, build, deploy and use AI tech solutions in a responsible and ethical manner, building loyalty and partnerships (Hasan, 2021; ThomsonReuter, 2024).

PwC has implemented RPA to streamline tax processes, developed GL.ai for AI-driven auditing, and created Cash.ai to automate cash audits, including cash balances, bank reconciliations, bank confirmation letters, foreign exchange, and the bank's financial health. It also employs Natural Language Generation for anti-corruption reporting and Halo for journal analysis. Each firm continues to invest in AI to improve efficiency, accuracy, and decision-making in accounting and auditing (Hasan, 2021). They have achieved 20% to 50% productivity gains in their development processes with GenAI. Additionally, PwC professionals and their clients have access to an enterprise version of ChatGPT-4o, enhancing efficiency and support (ThomsonReuter, 2024).

2.4 Challenges of AI in accounting and auditing

Despite the many benefits of AI in helping accounting firms streamline processes, improve efficiency, provide real-time insights into risks and better data-driven decisions, AI in accounting and auditing presents several challenges (KPMG, 2024; ThomsonReuter, 2024). Data privacy and security are major concerns, as AI systems rely on vast amounts of sensitive financial information. Ensuring regulatory compliance is also complex, as AI must align with constantly evolving accounting and auditing standards. Additionally, AI models can produce biased or inaccurate results if trained on incomplete or poor-quality data, leading to flawed financial analysis. The integration of AI into existing workflows requires significant investment, technical expertise, and employee training. Moreover, the lack of transparency in AI decision-making, especially with complex models like deep learning, raises concerns about accountability and trust. Overcoming these challenges is crucial to fully realising AI's potential in the industry.

2.5 Integration of blockchain for trusted AI accounting systems

The existing literature suggests blockchain's security features have the potential to address key challenges faced by AI systems, ensuring financial data remains tamper-proof while providing a fully traceable audit trail that enhances the reliability of AI-generated reports (Han et al., 2023). Smart contracts can automate accounting and auditing processes, reducing human error and improving efficiency. Additionally, blockchain's decentralised nature mitigates risks associated with data manipulation and fraud, reinforcing the integrity of financial transactions (Faisal et al., 2024)

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Trust in blockchain-driven record-keeping systems enhances the reliability of AI-generated financial information. Blockchain can securely store accounting data, such as accounts payable and receivable, and automate specific accounting and auditing processes. This automation leads to fewer data losses, reduced tampering, and improved transaction tracking, enhances data integrity and audibility (Garanina et al., 2022, Basly & Saunier, 2024, Al-Sulami et al., 2024)

By combining AI's analytical power with blockchain's security features, organisations can achieve real-time financial monitoring, streamlined compliance, and enhanced decision-making. However, challenges such as high implementation costs, system integration complexities, and evolving regulatory frameworks must be addressed to fully realise blockchain's potential in AI-enabled accounting systems.

3 Research method

This study employed an exploratory qualitative approach, utilising data from both podcasts and semi-structured interviews to investigate the implications of AI technologies on the role of accountants and auditors. Data were collected from podcasts hosted by the Journal of Accountancy (www.journalofaccountancy.com), which featured a diverse set of expert informants. These experts included senior editors, certified public accountants (CPAs), certified information technology professionals (CITPs), audit leaders, and specialists in governance and emerging technologies, including AI and blockchain applications in accounting and auditing. This diverse range of experts provided a well-rounded perspective on the integration of AI and blockchain in accounting practices, particularly regarding their impact on accounting professionals. These podcasts are coded as PODCAST1 to PODCAST10 in the analysis.

To complement insights from the podcasts, 17 semi-structured interviews were conducted with accounting professionals who had relevant experience or expertise in emerging new technologies, particularly AI. Participants were selected through a purposeful sampling strategy, which was designed to capture a broad range of perspectives based on their familiarity with AI and blockchain applications in accounting. Participants were contacted via LinkedIn and selected based on their familiarity with AI applications in accounting, and efforts were made to ensure diversity in terms of industries, organisational roles, and geographical locations. The participants represented professionals from Belgium, Germany, the UK, the USA, the Netherlands, and Australia, thus providing a global perspective on the integration of AI technology into accounting practices.

Each interview, lasting 45 to 90 minutes (with most interviews being at least 60 minutes), was conducted via MS Teams, Zoom, or Google Meet. The interview questions, which were shared in advance to facilitate deeper discussions, focused on AI's potential to reshape accounting practices. The study ensured that data saturation, as defined by Eisenhardt (1989) and Glaser and Strauss (1967), was reached after the 17 interviews, when no new themes or insights emerged from additional data collection. Participants were coded as IntvP1 to IntvP17 to protect their anonymity (see Table 1 below).

Table 1 Interviewee Details

Participant	Gender	Expertise	Country	Years of work experience
IntvP1	M	Corporate Account Tech	Belgium	7
IntvP2	M	C-Level Executives, AI, Blockchain	Germany	31
IntvP3	F	Regulatory, emerging technologies	Belgium	27
IntvP4	F	Banking, Financial, Tech, AI	UK	24
IntvP5	M	AI Technology	UK	18
IntvP6	M	Blockchain, AI technology	UK	22
IntvP7	M	Account Technology	USA	25
IntvP8	M	Digital Policy, accountancy, Technology	UK	25
IntvP9	M	Policy and governance of Algorithmic systems, accountancy	UK	28
IntvP10	M	Account Tech, FinTech	Netherlands	29
IntvP11	M	AI, governance	USA	23
IntvP12	M	AI, ethics, Leadership	USA	31
IntvP13	M	Digital Technology, Accountancy	Netherlands	13
IntvP14	M	Ethics, responsible AI, blockchain	USA	28
IntvP15	F	Blockchain, DeFi, AI, Accountancy	Australia	41
IntvP16	F	AI, Cybersecurity, governance	New York	26
IntvP17	M	Social-technical systems, Account Technology	UK	23

Source: Authors own work

Data from both sources were analysed using NVivo software to support thematic analysis, following the procedures outlined by Saunders et al. (2019). A systematic and rigorous process was followed during the analysis to ensure the reliability and trustworthiness of the findings. In the first stage, all researchers reviewed the entire dataset, including podcast transcripts and interview notes, to gain an initial understanding of the data. During the preliminary coding phase, distinct units of meaning (first-order concepts) were identified from the data and used to create an initial coding scheme. These codes were subsequently refined and grouped into related categories, which helped in identifying emerging patterns. First-order concepts were then collaboratively organised into second-order themes through iterative discussions, consensus-building, and refinement. Finally, three aggregate dimensions were identified, providing a clearer understanding of the role of AI in accounting and auditing practices and its impact on accounting professionals.

To ensure reliability and trustworthiness, several strategies were employed. Multiple researchers independently coded the data and resolved differences through discussion, ensuring consistency and reducing bias. A purposeful sampling approach included qualified informants with AI expertise in accounting, adding credibility and relevancy. Additionally, participant anonymity was maintained throughout the study, and the coding and thematic development processes followed a structured methodology to ensure the trustworthiness of the findings.

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4 Data analysis and findings

This study organises the data using a data structure comprising 1st order concepts, 2nd order themes, and aggregate dimensions (see Figure 1). This approach is designed to enhance understanding of how digital transformation influences organisational change, particularly in the roles of accountants and auditors by adopting this structured presentation.

To reinforce the relevance of the identified themes, Table 2 presents representative quotations that illustrate key insights and support the study's findings. This comprehensive structure not only clarifies the implications of AI technology for the accounting profession but also offers practical guidance for professionals adapting to the evolving technological landscape.

Furthermore, this research articulates each theme identified from the data and progressively collates similar themes into three overarching dimensions. These dimensions form the foundation of an emerging thematic framework for understanding digital transformation in accounting and auditing through the lens of AI technology, as illustrated in Figure 2.

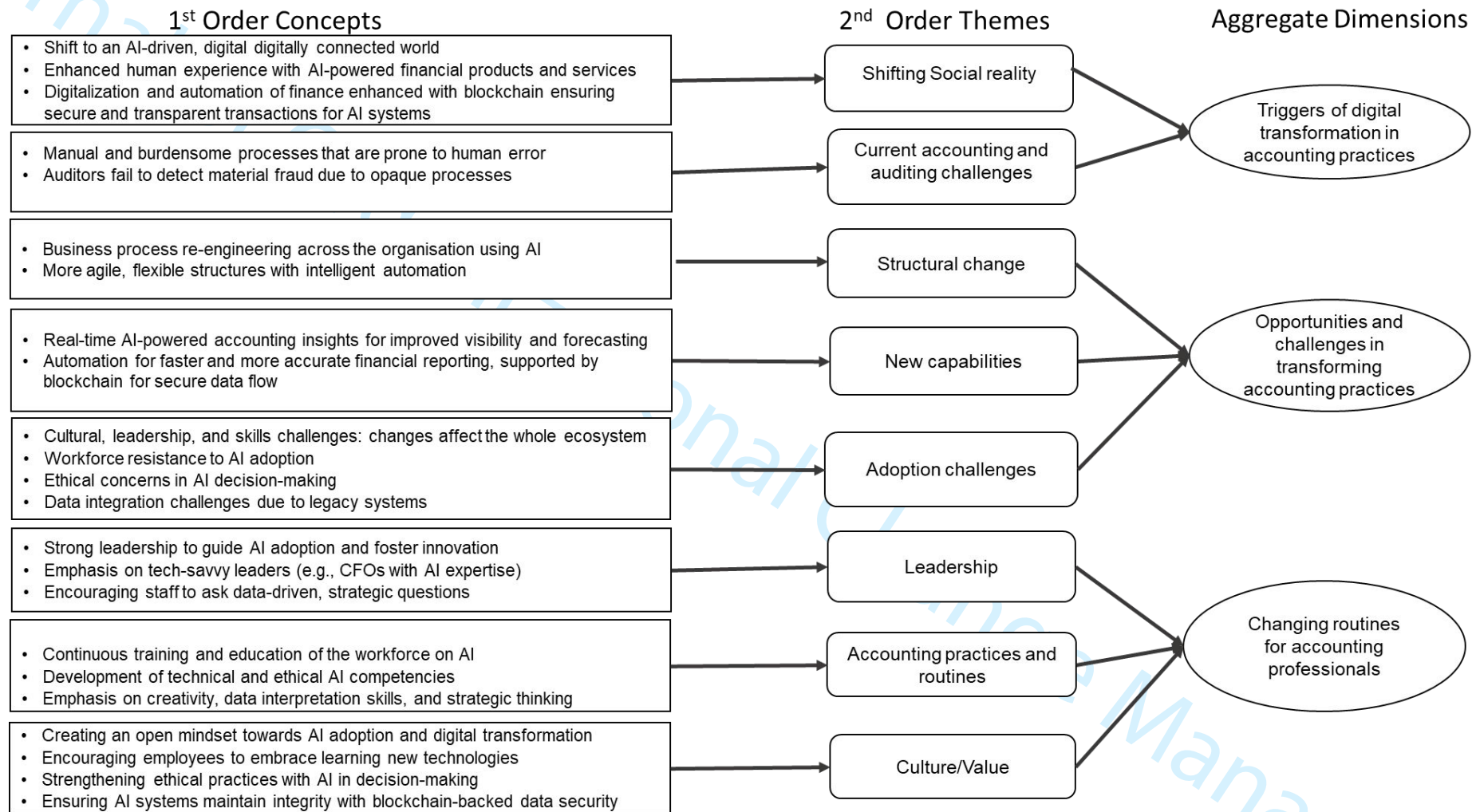


Figure 1: Thematic Analysis and Data Structure of this study (Source: Authors own work)

Table 2: Data supporting interpretation with representative quotations for themes (Source: Authors own work)

Theme	Representative Quotations
Triggers of digital transformation in accounting practices	
Shifting Social Reality	<ul style="list-style-type: none">• "There are so many unique technologies, AI being the most prevalent now...when Open AI introduced ChatGPT, and it's literally changed everything around the world and moving at a rapid pace" (PODCAST4)• "I think people don't realise that this isn't just a career thing, the digital revolution is a life-altering thing with AI, and the way jobs are changing, you need these fundamental skills" (IntvP2)• "For the next couple of years, you will see this shift of companies who are successfully transferring into something new into this new world thing with technologies like AI, blockchain, cloud computing, Internet of Things..." (IntvP13)
Current accounting and auditing challenges	<ul style="list-style-type: none">• "Business processes often involve creating or capturing data in a way that is siloed and difficult to access, analyse or act on outside of the process for which it was created. Even today, many business processes are reliant on physical record-keeping – note-taking, filling out paper forms or ticking checkboxes on hard copy documents that are then filed away and forgotten about" (IntvP14)• "We have lots of pain points in accounting, for example, manual work, human error, the need for reconciliation, checking or validating information" (IntvP7)
Opportunities and challenges in transforming accounting practices	
Structural Change	<ul style="list-style-type: none">• "AI's integration is not just about automation — it's reshaping organisational structures to become agile, data-driven, and proactive, ensuring accounting and auditing processes are streamlined, faster, and more accurate" (IntvP15)• "AI, when combined with blockchain, strengthens data integrity by ensuring transactions are immutable and verifiable. I believe that blockchain itself can cause the structure of organisations to change. Because it is network technology. It works decentralised, it works best when used by organisations that are not rigid, hierarchies of command and control" (IntvP17)
New capabilities	<ul style="list-style-type: none">• "Save business owners time and improve their process efficiency so that they can generate more revenue...AI-driven predictive analytics enable real-time insights, allowing businesses to forecast trends, manage risk, and improve financial decision-making" (IntvP1)• "AI is changing the way audits are done. Instead of waiting for year-end reviews, AI tools can continuously monitor financial transactions in real-time. This means risks and errors are flagged immediately, making audits far more proactive and accurate" (IntvP6)
Adoption challenges	<ul style="list-style-type: none">• "Challenges around culture, leadership, and skills, existing business models, Lack of skills...AI-driven decision-making systems raise concerns about transparency, accountability, and potential bias" (IntvP3)• "It is complicated, and I don't think the regulators have reached the level of understanding yet." (IntvP14)
Changing routines for accounting professionals	
Leadership	<ul style="list-style-type: none">• "It primarily drives changes at the leadership level, educating leaders, board of directors that's my main target" (IntvP4)• "The form of leadership we need is the kind of formal leadership that's natural to these technologies, which is that leaders who work to support diverse distributed thinking and processing have the self-confidence to trust their own employees within their organisation. They can build a culture where people can listen to each other and develop more collaborative, more open ways of being and working that allows for diversity" (IntvP17)
Accounting Practices and Routines	<ul style="list-style-type: none">• "What will happen, and is happening that we should address, is making training and reassignment of employees to new positions smoother and better-planned, not only to help the people affected by technology changes but also help the businesses take full advantage of their talents and skills in new roles" (IntvP7)• "We are talking about jobs that might not exist quite the same way right now. I think that instead of worrying about it the day that they get displaced. I think the next step is building pathways forward before the displacement happens. I think people are doing that" (IntvP13)
Culture/value	<ul style="list-style-type: none">• "Without question, the data acquisition of transactional information is much easier for auditors to grasp than the required mindset change. This is more of a change management issue than a technology management issue." (IntvP2)• "It is critical when we go beyond business conduct to include ethics and culture. Transparency and accountability would relate to different cultures. Because in different cultures, things are seen differently" (IntvP3)

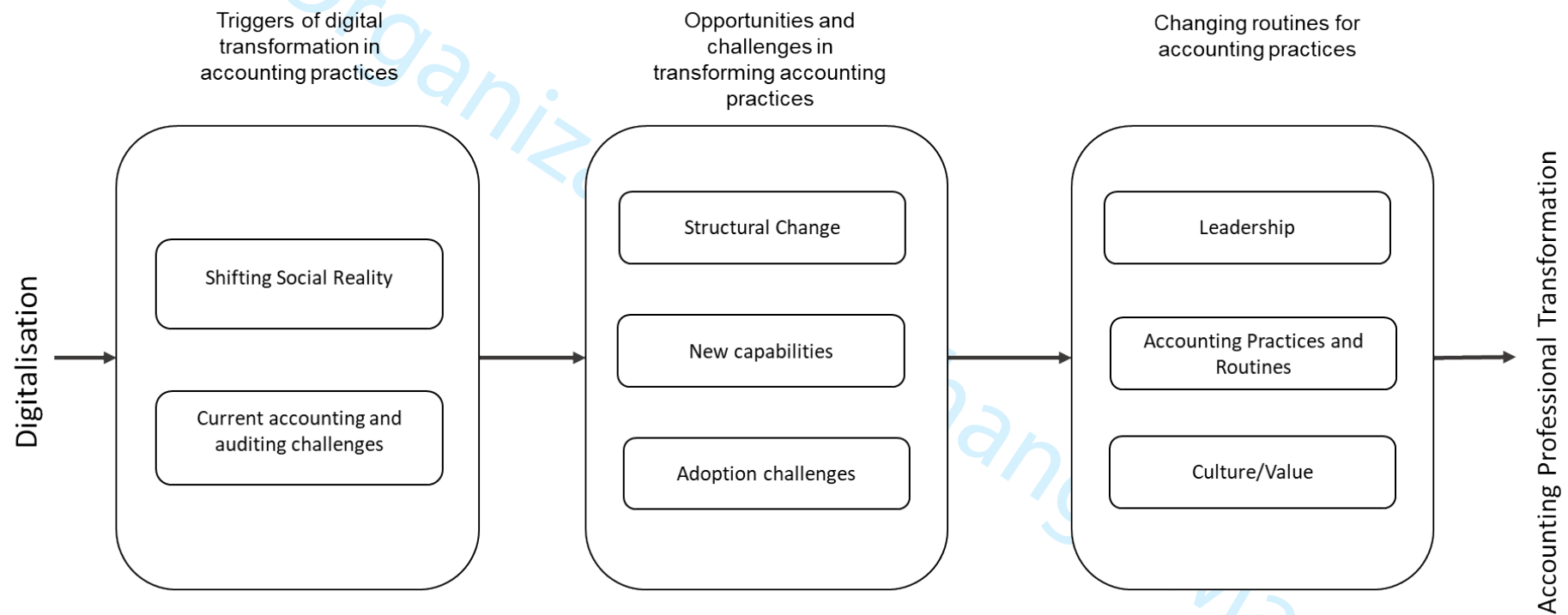


Figure 2: Digital Transformation in Accounting and Auditing with Artificial Intelligence

Source: Authors own work

As indicated in Figure 2 above, the thematic framework developed by this study constitutes three aggregate dimensions to enhance comprehension of the triggers, opportunities, and challenges of integrating AI in accounting and auditing. Additionally, the framework sheds light on how accounting professionals can adapt to ensure their continued relevance in future roles.

4.1 Triggers of digital transformation in accounting practices

The findings indicate that many companies are putting more investment into accelerating technology or digital transformation to improve and develop business processes. Digitalisation in society influences businesses in many aspects. Two themes emerged regarding the triggers of changes in accounting and auditing, based on informants' views and experiences: shifting social reality and current challenges faced by accounting and auditing.

4.1.1 Shifting social reality

The data supports the notion that AI is rapidly transforming society, influencing industries, workplaces, and everyday life.

IntvP3 commented:

“Change is moving faster and faster. AI is transforming industries everywhere, and accounting is no exception. This isn’t just about new technology — it’s a whole new way of working. Auditors aren’t just number checkers anymore; their roles are evolving...”

In addition, PODCAST4 indicated:

“I think it’s because of the speed at which so much technology change is occurring. It literally means it’s disrupting the way we do business and, by default, the way organisations do business, and then how internal auditors assess risk around that, hence, the term disruption.”

Hence, society needs to determine how best to respond to digital transformation with emerging new technologies like AI, ML and GenAI. IntvP2 suggests that the change is not just about technology, but more about people and culture.

4.1.2 Current accounting and auditing challenges

Many of our informants, who have accounting or auditing experience, explained that under the current accounting regime, the accounting process is far from being automated. Many tasks are labour-intensive, routinely requiring manual data input to spreadsheets or accounting software databases. For example, PODCAST 9 specified:

“If you look at the way an audit comes together today, it hasn’t changed in 25 years. Firms have basically added technology and replicated their paper process. The time is now...to move down the path to real-time auditing and monitoring. In an instant information society, which company or user is going to be happy with a historical financial statement that finally has the CPA firm’s

opinion on it 90 days after the client's year-end? The old model's going to have to change."

Such challenges faced by today's accounting practice require further improvements and adjustments to respond to the changing business environment. Businesses need more timely financial information to make decisions more promptly.

4.2 Opportunities and challenges in transforming accounting practices

The new capabilities of AI technologies present new opportunities for accounting professionals to enhance their practices. However, it also brings new challenges related to AI technologies. Based on the informants' views and experiences, three themes were identified regarding the opportunities and challenges in transforming accounting practices: structural change, new capabilities, and adoption challenges.

4.2.1 Structural change

The data from this study suggest that advancement in AI technologies, especially when combined with blockchain to strengthen data integrity for AI systems, will lead to structural changes in organisations. It is acknowledged that technology cannot deliver solutions without an overhaul of business practice, requiring a business process re-engineering across the organisation. The older hierarchical structure is no longer fit for today's organisation. According to IntvP15:

"We need to solve and look at distributed ledgers and other AI technologies that reduce transaction costs for cross-company connections."

Additionally, IntvP4 suggested:

"Many companies have been trying to become less bureaucratic, to have fewer central rules and procedures, more autonomy for their local teams to be more agile."

As such, organisations need to progressively make their structures less hierarchical, and more collaborative to be agile to the changing business environment as they transform digitally.

4.2.2 New capabilities

From automating routine tasks to enhancing decision-making, AI is driving efficiency, accuracy, and innovation in the accounting and auditing field. For example, PODCAST9 explicated:

"AI's ability to analyse vast amounts of data is enabling smarter business strategies, personalised experiences, and improved problem-solving and decision-making...."

IntvP2 explained:

"We are leveraging the power of AI to revolutionise financial analysis by examining entire datasets with speed and precision. AI enables us to detect anomalies, outliers, and potential risks that might otherwise go unnoticed in

traditional sampling methods. By automating these processes, AI enhances accuracy and minimises human error.”

Accounting professionals need a better understanding of AI technology to leverage its new capabilities and innovate their services. The data from this investigation indicate that the accounting profession is entering a new age of enlightenment with AI, ML and GenAI.

4.2.3 Adoption challenges

Despite the potential opportunities to enhance accounting practices using AI technology, informants' views and experiences reveal significant challenges, such as data privacy and accuracy. Additionally, organisations face the issue of legacy debt as they work to build data access systems that need significant computing power and storage capacity to ensure transparency and privacy.

IntvP2 alerted:

“For AI to deliver meaningful insights, companies must ensure they are collecting the right data — both in terms of relevance and volume. This often requires rethinking existing data collection processes, ensuring information is captured consistently across departments, and integrating legacy systems that may not have been designed for data sharing. Without these foundations in place, AI models risk producing incomplete, inaccurate, or biased insights.”

In addition, in terms of regulation, IntvP15 highlighted:

“AI models can be complex and opaque, making it tricky to define clear accountability. There’s concern about data privacy, algorithm bias, and the risk of errors creeping in unnoticed. Because of this uncertainty, some regulators are taking a slower, more cautious approach”.

Further, the cost of the proposed change or reform is too high as it endangers previous accomplishments. The change will affect the whole ecosystem, not just one party.

4.3 Changing routines for accounting professionals

AI continues to evolve, it's not just changing how we work — it's reshaping social norms, job roles, and the skills people need to thrive in the digital age, including accountants and auditors. Based on the data analysis, three themes emerged regarding changing routines for accounting professionals: leadership, accounting practices and routines, and culture/value.

4.3.1 Leadership

The data indicate that companies require a form of leadership beyond merely understanding technical aspects of AI, ML, GenAI, and the possibilities of integration with blockchain to enhance data integrity. Effective leaders must be able to facilitate open and constructive discussions that encompass not only the technical complexities but also the people and process sides of digital adoption.

IntvP17 commented:

"We need to have leaders who can say I don't know. And only once your leaders accept that they don't know because there is no way you could know enough about AI, there's no way you can know enough about blockchain...So the form of leadership we need is leaders who work to support diverse distributed thinking and processing, trust their employees, build a culture within their organisation where people can listen to each other, and develop more collaborative, more open ways of working that allow for diversity, that allows for the software developers to work with the social scientists, accountants, auditors.... It comes under collaboration and openness and the ability to say "I don't know"."

As such, companies need curious board members who ask the right questions, do the research, become prepared, empower people, and have people understand the change, and anticipate it to think carefully about how best to leverage the new technologies to drive success.

4.3.2 Accounting practices and routines

By automating data analysis and identifying trends or anomalies as they emerge, AI enables professionals to move beyond traditional reporting roles, becoming proactive advisors who can guide businesses with actionable insights and informed forecasting.

PODCAST9 suggested:

"In the three- to five-year range are two other issues. One is the expert use of analytics. We need to get closer to real-time reporting. Part of that's going to happen as a result of tools that provide us with predictive analysis, the ability to dig down deeper and not destroy the nature of the data we are working on. Second, we may not just be auditing financial data in the future. We may be auditing people's ability to handle issues. We may be handling total nonfinancial issues relative to a product's performance."

PODCAST10 further suggested the skills required for future accounting practitioners:

"First is technical and ethical competencies. Second is intelligence to acquire and use knowledge and apply good reasoning in solving problems. The third is creativity, coming up with new ideas and new solutions.. really going to be crucial in this next phase of our profession. Fourth is an awareness of software applications and data analytics. The fifth is the vision... Last are experiences, to learn by being around clients."

Therefore, accounting professionals need to assess and enhance their skills continuously to keep pace with advancements in new technologies. Understanding how advanced technological tools facilitate greater efficiency in handling both financial and non-financial matters during digital transformation is essential. Training and education should be integral components of any organisation's strategic plan to

ensure that employees are equipped with the necessary knowledge and skills to adapt to evolving technologies.

4.3.3 Culture/value

The last theme draws attention to the cultural and value shifts brought about by digital transformation. Real-time accounting and continuous auditing have the potential to become standard practices facilitated by AI's capabilities. This transition will lead to the establishment of new accounting and auditing standards to ensure its effective integration and adherence across the industry.

IntvP17 expressed a similar opinion:

"You've got to make sure that the culture of the organisation encourages trust, psychological safety, listening, reflection, and ethical standing throughout the entire system."

PODCAST5 further indicated the increasing demand for trust and integrity:

"The trust opportunity is a key value part of the profession, there has never been a better time to give more assurance as you look at data with such things as data analytics you can really apply in the overall integrity of the data."

The findings of this study indicate that the tone from the board level can set the direction for accounting professionals on how they use AI or other digital technologies, such as blockchain, to enhance internal control functions in risk management, compliance, and internal auditing. This tone should emphasise the value of AI to enhance efficiency, solve problems, improve decision-making, and open up new possibilities. Therefore, there is a need for a cultural shift within corporations to embrace new innovative products and services that leverage technology effectively. This shift enables individuals to become more efficient, freeing up time to focus on value-added tasks such as interpreting and understanding AI insights.

5 Discussion

After analysing multiple data sources, this study contributes to the development of a thematic framework for digital transformation in accounting and auditing with AI technology. The framework comprises three aggregate dimensions: triggers of digital transformation in accounting practices, opportunities and challenges in transforming accounting practices and changing routines for accounting practices. It offers insights and stimulates discussions relevant to digital transformation impacts on organisational change in the role of accountants and auditors.

This framework aligns with Lewin's 3-Step organisational change model: unfreezing, movement, and refreezing. The 3-Step model is regarded as Lewin's key contribution to organisational change. It considers organisational issues, field theory, group dynamics, and action research to form an integrated approach to analysing, understanding, and bringing about change. Burnes (2004) suggests that Lewin's approach to change, particularly the 3-Step model, remains relevant to the modern

world in managing organisational change throughout different stages of the process. Lewin believes that the crucial step in resolving social change is fostering learning, enabling individuals to comprehend and restructure their perceptions of the world. This perspective is particularly pertinent to the framework developed in this study, as it elucidates why accounting practices need to change, what changes the accounting industry will encounter with the use of AI technology by considering the opportunities and challenges, and how accounting practices can be changed to respond to digital transformation.

Unfreezing: Triggers of digital transformation in accounting practices

In the unfreezing stage, the goal is to move away from the current state. Schein (1996) emphasizes the key to unfreezing is to recognise change as a profound psychological process, whether at the individual or group level. In other words, this involves overcoming inertia and dismantling existing viewpoints. It's about preparing for change by recognising that the current way of doing things is no longer effective or sufficient. Key actions include challenging existing beliefs, addressing resistance, and creating awareness about the need for change.

This understanding is particularly relevant for accounting professionals in today's dynamic environment, where digital transformation triggers changes across various domains. Evidence suggests that many companies are increasing their investments in accelerating technology and digital transformation to enhance and develop their business processes. The digitalisation of society affects businesses in numerous aspects, driving the rapid evolution and influencing how business is conducted. This required change is expected to not only transform core business operations but also revolutionise the supporting functions. Through the adoption of innovative technologies like AI, ML, GenAI and blockchain, businesses can achieve greater efficiency, improved decision-making, and enhanced customer experiences, ultimately reshaping the business landscape to be more efficient. Consequently, accounting professionals need to recognise the change, enhance their awareness, and prepare for change accordingly.

Movement: Opportunities and challenges in transforming accounting practices

This movement stage represents an iterative process of actions to enable groups or individuals to move from a less acceptable to a more acceptable set of behaviours (Burnes, 2004). This stage can be marked by confusion and uncertainty as people begin to move away from old habits and adopt new behaviours. The end goal might not be immediately clear, which can lead to feelings of discomfort. Therefore, support, communication, and guidance are crucial during this phase to help individuals navigate the transition and gradually understand the benefits of the change.

The second dimension of the framework developed by this study helps accounting professionals understand the opportunities and challenges in transforming accounting practices. Despite the benefits of AI technology, the effective use of AI depends upon robust data management, which requires business process re-engineering across the organisation. This often requires rethinking existing data

collection processes, ensuring information is captured consistently across departments, and integrating legacy systems that may not have been designed for data sharing. Moreover, achieving the 'democratisation' of data — where employees at all levels can access and utilise data for informed decision-making — is vital. This requires breaking down silos between departments and ensuring data flows seamlessly across the organisation. Businesses that successfully democratise their data will be better positioned to unlock AI's full potential. As such, the traditional hierarchical structure is becoming increasingly obsolete, necessitating a shift towards less bureaucratic frameworks with fewer central rules and procedures, granting more autonomy and promoting agility. Furthermore, regulatory frameworks need to evolve to accommodate the unique aspects of AI, adding another layer of complexity to its adoption. The cost of implementing these proposed changes can be high, further discouraging companies from embracing AI technology. Therefore, while the potential advantages of AI are promising, the structural, regulatory, and financial hurdles must be addressed to facilitate its broader acceptance and integration into business practices.

Refreezing: Changing routines for accounting practices

The refreezing stage seeks to "stabilise the group at a new quasi-stationary equilibrium in order to ensure that the new behaviour is relatively safe from regression" (Burnes, 2004:986). It often requires changes to organisational culture, norms, policies and practices. In essence, it involves establishing new routines and habits that become the new norm.

The third dimension, changing routines for accounting practices, assists accountants and auditors in rethinking their roles and understanding how to integrate AI technologies into their existing or potential new AI-powered accounting information systems to broaden the scope of accounting. When combined with blockchain, auditing will increasingly be carried out by firms with advanced technological capabilities. The audit role will expand to include IT audits, smart contract reviews, technology risk assessments, predictive audits, real-time monitoring, continuous auditing, software/algorithm audits, compliance analysis, and blockchain-related transaction interpretation. With the emergence of digital assets and more clients investing in cryptocurrencies, accountants need to understand the tax implications of these assets and consider whether current accounting standards apply or if new standards need to be developed.

Looking ahead, predictive AI is likely to become increasingly embedded in enterprise resource planning (ERP) and audit platforms, operating in the background to deliver risk scores, forecasts, and exception alerts directly through dashboards. At the same time, GenAI is poised to serve as an interactive co-pilot—producing first drafts, explaining complex outputs to non-experts, and enabling conversational queries of financial data. Together, these technologies have the potential to transform accounting into a more strategic, insight-driven discipline.

Changes in routines for accounting practices in AI settings will influence its entrenched professional culture, leading to more timely accounting practices based on big data analytics. The role of accountants will increasingly incorporate more

technological elements in training, testing, and auditing ML models and algorithms, requiring them to interpret results using their accounting knowledge and expertise to provide more judgmental explanations based on different levels of aggregated accounting data to meet the needs of various users. AI and ML aren't replacing accountants, and they aren't making accountants' jobs more difficult. Rather, the necessary skillset is evolving to ensure AI-generated outputs are accurate, compliant, and relevant. As such, leaders play a critical role in fostering a culture of innovation and continuous learning within the organisation. They must inspire and empower their teams to explore new technologies, experiment with innovative solutions, and adapt to evolving market dynamics.

6. Conclusion

This study uncovers some themes that enhance comprehension of digital transformation with AI technology and enhance accounting practices. By specifically examining its implications for accounting professionals, it sheds light on the ongoing processes of organisational change facilitated by AI technology. This extension of AI and accounting literature serves to illuminate potential benefits, challenges, and future trajectories associated with AI applications in accounting and auditing to improve efficiency and enhance decision-making. To remain relevant, accounting professionals must grasp the dynamics of technological changes and proactively address digital skill gaps to navigate the rapid shifts in today's business environment. Collaborations with diverse stakeholders are essential for designing AI-based accounting systems aligning with business needs, ensuring sustainable accounting practices complementing overall business strategies.

Acknowledgements

We want to thank the Journal of Organisational Change Management editors and the anonymous reviewers for their invaluable comments and suggestions, which helped improve this manuscript.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Ethical Statement: This component of the study did not require separate ethics review board clearance, as it formed part of my PhD research conducted under approved protocols (online interviews)

References

- Almufadda, G., & Almezeini, N. A. (2022). Artificial intelligence applications in the auditing profession: a literature review. *Journal of Emerging Technologies in Accounting*, 19(2), 29-42.

- Al-Sulami, Z. A., Ali, N. A., Ramli, R., & Lu, S. (2024). Towards a comprehensive understanding of blockchain technology adoption in various industries in developing and emerging economies: a systematic review. *Cogent Business & Management*, 11(1), P.2294875.
- Baldwin, A. A., Brown, C. E., & Trinkle, B. . (2006). Opportunities for artificial intelligence development in the accounting domain: the case for auditing. *Intelligent Systems in Accounting, Finance & Management: International Journal*, 14(3), pp.77-86.
- Barone, G., & Sherry, B. (2024). *IMA Publishes Report on the Global Impact of AI on Accounting and Finance Professionals*. IMA. <https://eu.imanet.org/press-releases/2024/01/ima-publishes-report-on-the-global-impact-of-ai-on-accounting-and-finance-professionals>
- Basly, S., & Saunier, P. L. (2024). Blockchain Adoption in the Accounting and Auditing Industry: An Exploratory Study in France. In *Decentralized Finance: The Impact of Blockchain-Based Financial Innovations on Entrepreneurship*. Cham: Springer International Publishing., 95–110.
- Brynjolfsson, E., Li, D., & Raymond, L. (2025). Generative AI at work. *Quarterly Journal of Economics*, 140(2), 889-942.
- Burnes, B. (2004). Kurt Lewin and the Planned Approach to Change: A Re-appraisal. *Journal of Management Studies*, 41(6), 977–1002.
- Carrasco, H., & Romi, A. M. (2022). Toward an omniopicon: the potential of blockchain technology toward influencing vulnerable populations in contested markets. *Accounting, Auditing and Accountability Journal*, 35(7), 1685–1713. <https://doi.org/10.1108/AAAJ-08-2020-4732>
- Dell'Acqua, F., Kogut, B., & Perkowski, P. (2025). Super mario meets ai: Experimental effects of automation and skills on team performance and coordination. *Review of Economics and Statistics*, 107(4), 951-966.
- Dell'Acqua, F., McFowland III, E., Mollick, E. R., Lifshitz-Assaf, H., Kellogg, K., Rajendran, S., ... & Lakhani, K. R. (2023). Navigating the jagged technological frontier: Field experimental evidence of the effects of AI on knowledge worker productivity and quality. *Harvard Business School Technology & Operations Mgt. Unit Working Paper*, (24-013).
- Deloitte. (2018). *16 Artificial Intelligence projects from Deloitte Practical cases of applied AI Unleash the power of AI for your organization*. Deloitte The Netherlands. <https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/innovatie/deloitte-nl-innovatie-artificial-intelligence-16-practical-cases.pdf>
- Faisal, M. N., Sabir, L. B., AlNaimi, M. S., Sharif, K. J., & Uddin, S. F. (2024). Critical Role of Coopetition Among Supply Chains for Blockchain Adoption: Review of Reviews and Mixed-Method Analysis. *Global Journal of Flexible Systems Management*, 1–20.
- Garanina, T., Ranta, M., & Dumay, J. (2022). Blockchain in accounting research: current trends and emerging topics. *Accounting, Auditing and Accountability Journal*, 35(7), 1507–1533. <https://doi.org/10.1108/AAAJ-10-2020-4991>
- Han, H., Shiwakoti, R. K., Jarvis, R., Mordi, C., & Botchie, D. (2023). Accounting and auditing with blockchain technology and artificial Intelligence: A literature review. *International Journal of Accounting Information Systems*, 48(p.100598), 1–16.
- Hasan, A. R. (2021). Artificial Intelligence (AI) in accounting & auditing: A Literature review. *Open Journal of Business and Management*, 10(1), pp.440-465.
- ICAEW. (2018). *Artificial intelligence and the future of accountancy*. chrome-

- extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.icaew.com/-
/media/corporate/files/technical/technology/thought-leadership/artificial-intelligence.ashx
- InfosysBPM. (2025). *Success Stories*. <https://www.infosysbpm.com/services/finance-accounting/case-studies.html>
- Jackson, D., & Allen, C. (2024). Enablers, barriers and strategies for adopting new technology in accounting. *International Journal of Accounting Information System*, 52(100666).
- Kassar, M., & Jizi, M. (2025). Artificial intelligence and robotic process automation in auditing and accounting: a systematic literature review. *Journal of Applied Accounting Research*, 1-25
- Kokina, J., & Davenport, T. H. (2017). The Emergence of Artificial Intelligence: How Automation is Changing Auditing. *JOURNAL OF EMERGING TECHNOLOGIES IN ACCOUNTING*, 14(1), 115–122.
- KPMG. (2024). *AI in financial reporting and audit: Navigating the new era*. <https://kpmg.com/xx/en/our-insights/ai-and-technology/ai-in-financial-reporting-and-audit.html#:~:text=AI is transforming financial reporting and auditing and is set,greater ability to detect anomalies>
- Kureljusic, M. and Karger, E. (2024). Forecasting in financial accounting with artificial intelligence—A systematic literature review and future research agenda. *Journal of Applied Accounting Research*, 25(1), pp.81-104
- Li, Z., & Zheng, L. (2018). The impact of artificial intelligence on accounting. *4th International Conference on Social Science and Higher Education (ICSSHE 2018)*, September(Atlantis Press).
- MordorIntelligence. (2025). *AI In Accounting Market Size & Share Analysis - Growth Trends & Forecasts (2025 - 2030)*. <https://www.mordorintelligence.com/industry-reports/artificial-intelligence-in-accounting-market>
- Munoko, I., Brown-Liburd, H.L., Vasarhelyi, M. (2020). The ethical implications of using artificial intelligence in auditing. *J. Bus. Ethics* 167 (2), 209–234.
- Odonkor, B., Kaggwa, S., Uwaoma, P.U., Hassan, A.O. and Farayola, O.A. (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*, 21(1), pp.172-188
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students Ebook* (8th ed.). Pearson Education, Limited.
<https://ebookcentral.proquest.com/lib/brunelu/detail.action?docID=5774742>
- Schein, E. H. (1996). Kurt Lewin's change theory in the field and in the classroom: notes towards a model of management learning. *Systems Practice*, 9(1), 27–47.
- Takyar, A. (2025). *AI in accounting and auditing: Use cases, benefits, technologies and implementation*. LeewayHertz. <https://www.leewayhertz.com/ai-in-accounting-and-auditing/>
- ThomsonReuter. (2024). *2024 Generative AI in Professional Services*. https://www.thomsonreuters.com/content/dam/ewp-m/documents/thomsonreuters/en/pdf/reports/tr4322226_rgb.pdf
- Trintech. (2024). *Leverage AI and Automated Accounting in the Financial Close*. <https://www.trintech.com/ai-and-automated-accounting-in-the-financial-close->

ppc/?utm_source=ga&utm_medium=ppc&utm_campaign=gro-uki-aiclose&_bt=730973804316&_keyword=accounting ai&_bm=b&_bn=g&_bg=177862602207&gad_source=1&gclid=EAlalQobChMI_OiNr-eYjAMVcZNQ

Yi, Z., Cao, X., Chen, Z., & Li, S. (2023). Artificial intelligence in accounting and finance: Challenges and opportunities. *IEEE*, 11, pp.129100-129123.

Figures

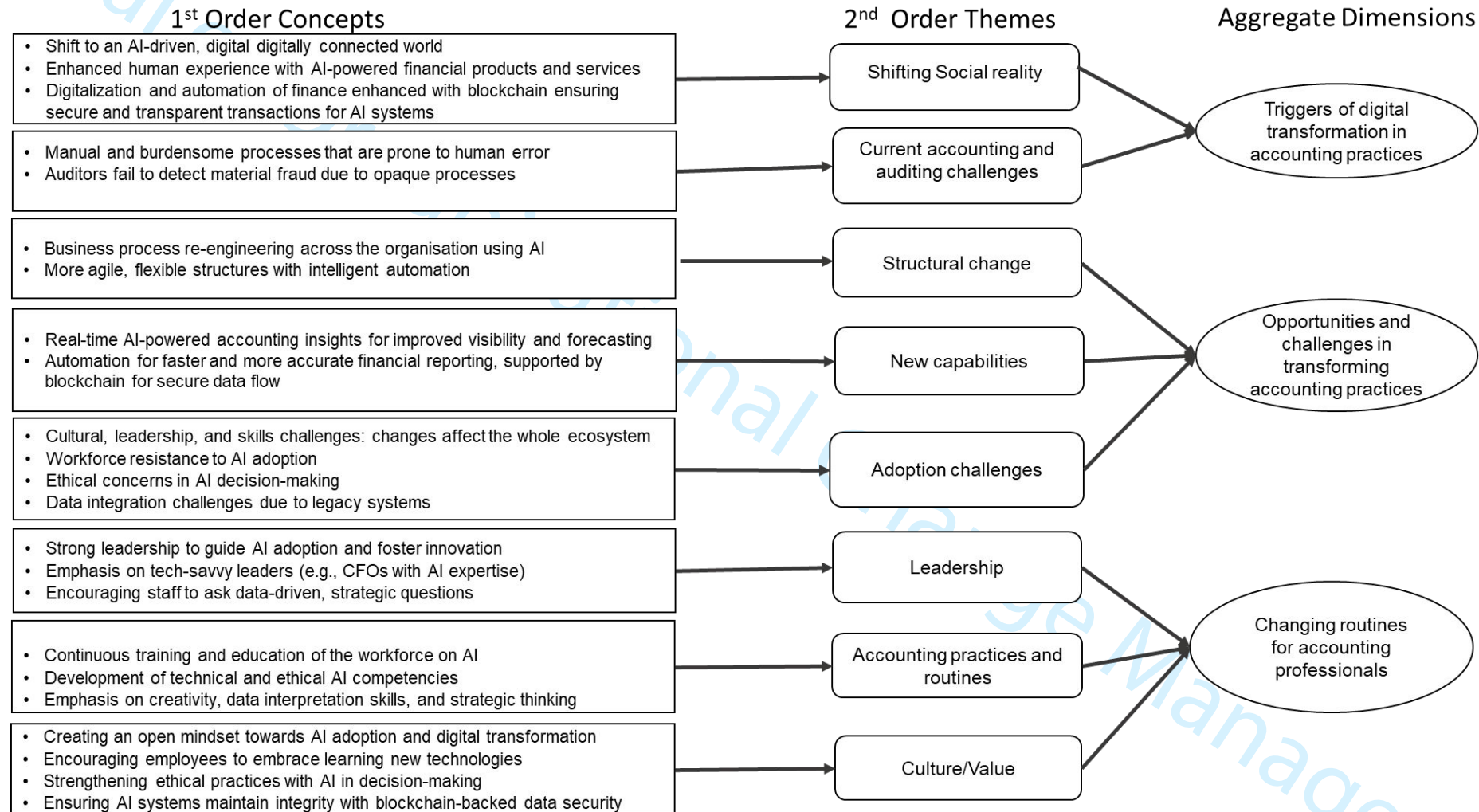


Figure 1: Thematic Analysis and Data Structure of this study (Source: Authors own work)

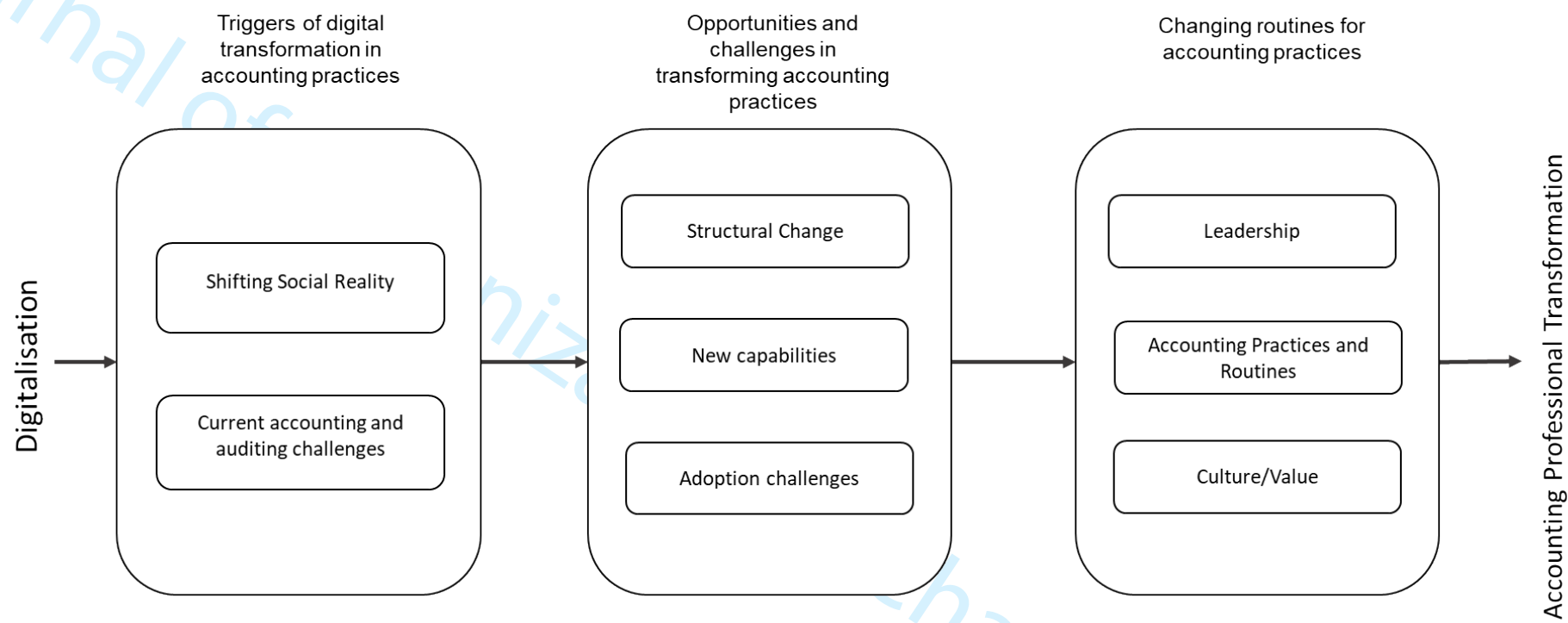


Figure 2: Digital Transformation in Accounting and Auditing with Artificial Intelligence

Source: Authors own work

Table 1 Interviewee Details

Participant	Gender	Expertise	Country	Years of work experience
IntvP1	M	Corporate Account Tech	Belgium	7
IntvP2	M	C-Level Executives, AI, Blockchain	Germany	31
IntvP3	F	Regulatory, emerging technologies	Belgium	27
IntvP4	F	Banking, Financial, Tech, AI	UK	24
IntvP5	M	AI Technology	UK	18
IntvP6	M	Blockchain, AI technology	UK	22
IntvP7	M	Account Technology	USA	25
IntvP8	M	Digital Policy, accountancy, Technology	UK	25
IntvP9	M	Policy and governance of Algorithmic systems, accountancy	UK	28
IntvP10	M	Account Tech, FinTech	Netherlands	29
IntvP11	M	AI, governance	USA	23
IntvP12	M	AI, ethics, Leadership	USA	31
IntvP13	M	Digital Technology, Accountancy	Netherlands	13
IntvP14	M	Ethics, responsible AI, blockchain	USA	28
IntvP15	F	Blockchain, DeFi, AI, Accountancy	Australia	41
IntvP16	F	AI, Cybersecurity, governance	New York	26
IntvP17	M	Social-technical systems, Account Technology	UK	23

Source: Authors own work

Table 2: Data supporting interpretation with representative quotations for themes (Source: Authors own work)

Theme	Representative Quotations
Triggers of digital transformation in accounting practices	
Shifting Social Reality	<ul style="list-style-type: none">• "There are so many unique technologies, AI being the most prevalent now...when Open AI introduced ChatGPT, and it's literally changed everything around the world and moving at a rapid pace" (PODCAST4)• "I think people don't realise that this isn't just a career thing, the digital revolution is a life-altering thing with AI, and the way jobs are changing, you need these fundamental skills" (IntvP2)• "For the next couple of years, you will see this shift of companies who are successfully transferring into something new into this new world thing with technologies like AI, blockchain, cloud computing, Internet of Things..." (IntvP13)
Current accounting and auditing challenges	<ul style="list-style-type: none">• "Business processes often involve creating or capturing data in a way that is siloed and difficult to access, analyse or act on outside of the process for which it was created. Even today, many business processes are reliant on physical record-keeping – note-taking, filling out paper forms or ticking checkboxes on hard copy documents that are then filed away and forgotten about" (IntvP14)• "We have lots of pain points in accounting, for example, manual work, human error, the need for reconciliation, checking or validating information" (IntvP7)
Opportunities and challenges in transforming accounting practices	
Structural Change	<ul style="list-style-type: none">• "AI's integration is not just about automation — it's reshaping organisational structures to become agile, data-driven, and proactive, ensuring accounting and auditing processes are streamlined, faster, and more accurate (IntvP15)• "AI, when combined with blockchain, strengthens data integrity by ensuring transactions are immutable and verifiable. I believe that blockchain itself can cause the structure of organisations to change. Because it is network technology. It works decentralised, it works best when used by organisations that are not rigid, hierarchies of command and control" (IntvP17)
New capabilities	<ul style="list-style-type: none">• "Save business owners time and improve their process efficiency so that they can generate more revenue...AI-driven predictive analytics enable real-time insights, allowing businesses to forecast trends, manage risk, and improve financial decision-making" (IntvP1)• "AI is changing the way audits are done. Instead of waiting for year-end reviews, AI tools can continuously monitor financial transactions in real-time. This means risks and errors are flagged immediately, making audits far more proactive and accurate" (IntvP6)
Adoption challenges	<ul style="list-style-type: none">• "Challenges around culture, leadership, and skills, existing business models, Lack of skills...AI-driven decision-making systems raise concerns about transparency, accountability, and potential bias" (IntvP3)• "It is complicated, and I don't think the regulators have reached the level of understanding yet." (IntvP14)
Changing routines for accounting professionals	
Leadership	<ul style="list-style-type: none">• "It primarily drives changes at the leadership level, educating leaders, board of directors that's my main target" (IntvP4)• "The form of leadership we need is the kind of formal leadership that's natural to these technologies, which is that leaders who work to support diverse distributed thinking and processing have the self-confidence to trust their own employees within their organisation. They can build a culture where people can listen to each other and develop more collaborative, more open ways of being and working that allows for diversity" (IntvP17)
Accounting Practices and Routines	<ul style="list-style-type: none">• "What will happen, and is happening that we should address, is making training and reassignment of employees to new positions smoother and better-planned, not only to help the people affected by technology changes but also <u>help</u> the businesses take full advantage of their talents and skills in new roles" (IntvP7)• "We are talking about jobs that might not exist quite the same way right now. I think that instead of worrying about it the day that they get displaced. I think the next step is building pathways forward before the displacement happens. I think people are doing that" (IntvP13)
Culture/value	<ul style="list-style-type: none">• "Without question, the data acquisition of transactional information is much easier for auditors to grasp than the required <u>mindset</u> change. This is more of a change management issue than a technology management issue." (IntvP2)• "It is critical when we go beyond business conduct to include ethics and culture. Transparency and accountability would relate to different cultures. Because in different cultures, things are seen differently" (IntvP3)

Table 2: Data supporting interpretation with representative quotations for themes (Source: Authors own Work)

Theme	Representative Quotations
Triggers of digital transformation in accounting practices	
Shifting Social Reality	<ul style="list-style-type: none"> • “There are so many unique technologies, AI being the most prevalent now...when Open AI introduced ChatGPT, and it's literally changed everything around the world and moving at a rapid pace” (PODCAST4) • “I think people don't realise that this isn't just a career thing, the digital revolution is a life-altering thing with AI, and the way jobs are changing, you need these fundamental skills” (IntvP2) • “For the next couple of years, you will see this shift of companies who are successfully transferring into something new into this new world thing with technologies like AI, blockchain, cloud computing, Internet of Things...” (IntvP13)
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Digital Transformation Impacts Organisational Change in the Role of Accountants and Auditors: An Exploratory Study

Hongdan Han^{1*}

Email: h.han1@westminster.ac.uk

Ammar Sammour²

Email: a.sammour@bbk.ac.uk

Shang Gao³

Email: Shang.Gao@oru.se

Fred A. Yamoah⁴

Email: fred.yamoah@bnu.ac.uk

^{1*} Corresponding author, University of Westminster- 35 Marylebone Rd, London NW1 5LS

² Birkbeck Business School, UK

³ Örebro University School of Business, Sweden

⁴ Buckinghamshire New University

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and publication of this article