

# Technology-Driven Transformation in AIS: The Role of Mindset Transformation in Accounting Professions' Perceptions and Adaptation

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## ABSTRACT

**Manuscript type:** Qualitative research paper

**Research aims:** This study examines how accounting professionals perceive emerging technologies and develop adaptive competencies in technology-driven accounting information systems.

**Design/Methodology/Approach:** An interpretivist approach was adopted using semi-structured interviews with 10 senior professionals from the Big Four firms, corporations, and IT consulting firms in Thailand. Data were analysed using reflexive thematic analysis.

**Research findings:** Technologies transform roles from a focus on transactional tasks to providing strategic advice, requiring new technical and professional competencies. Despite organisational support, multilevel barriers persist.

**Theoretical contribution/Originality:** "Mindset transformation" is identified as a mediating mechanism linking technology perceptions to adaptation behaviours, extending dynamic capabilities theory to the individual level.

**Practitioner/Policy implication:** Organisations should redesign competency frameworks, implement structured training, and enhance cross-functional collaboration, while curricula should integrate data analytics and systems thinking.

**Research limitations:** The qualitative design and small sample limit the findings' generalisability.

**Keywords:** Accounting Information Systems, Accounting Professions Transformation, Digital Transformation, Mindset Transformation, Technology Adoption

**JEL Classification:** M42, M15, J24

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## 1. Introduction

The accounting profession is at a critical juncture. Digital technologies have fundamentally reconstituted accounting practice, yet our understanding of how professions should navigate this transformation remains incomplete. Artificial intelligence (AI), robotic process automation, big data analytics, cloud computing, and blockchain are reshaping professional roles and challenging the foundations of accounting expertise (Kokina & Davenport, 2017; Bhimani & Willcocks, 2014). When algorithms execute work that had previously required years of professional training, the traditional value proposition of accounting is faced with an unprecedented disruption. How do practitioners perceive and respond to technologies that simultaneously threaten expert commodification and demand higher-order analytical capabilities?

The literature provides substantial insight into technological capabilities and their impact on accounting work (Moll & Yigitbasioglu, 2019). However, there remain critical gaps in knowledge. Research on technology adoption, which is dominated by the technology acceptance model (TAM) and the unified theory of acceptance and use of technology (UTAUT) (Davis, 1989; Venkatesh et al., 2003), emphasises pre-implementation acceptance intentions but does not adequately address the processes of post-implementation adaptation. These frameworks neglect how professions develop the requisite capabilities, reconstruct professional identities, and negotiate new value propositions amid automation. As Malatji et al. (2020) argue, acceptance models explain only 40 per cent of the variance in technology use and neglect transformative processes.

This study explores how accounting professionals perceive the impact of emerging technologies and adapt and develop competencies in the context of technology-driven accounting information systems (AIS). Research has often disregarded the intricate dynamics by which professions perceive technological impacts and develop adaptive capabilities, including tensions between automation efficiency and analytical competencies, varying adaptation patterns across organisational contexts, and psychological reorientation. This study examines how professionals in accounting and information systems navigate these challenges. Specifically, we address the following research questions: Research Question 1 (RQ1): How do accounting professionals perceive the impact of emerging technologies on their work and responsibilities within AIS? and Research Question 2 (RQ2): How do they adapt and develop

competencies in response to technological transformation?

The study employs dynamic capabilities theory (Teece et al., 1997) and semi-structured interviews with ten senior professionals across the Big Four firms, corporations, and IT consulting firms in Thailand during the accelerated phase of the COVID-19 pandemic to uncover the mechanisms by which professionals manage inherent tensions in technology-driven AIS environments. In doing so, it provides a more comprehensive understanding of professional transformation processes.

The remainder of the paper is structured as follows. In Section 2, we present the theoretical framework and literature review. Section 3 outlines the research design and Section 4 reports the findings, including the emergent theme of mindset transformation. In Section 5, we discuss the implications of the findings, and in Section 6, we conclude with the study's limitations and directions for future research.

## **2. Literature Review**

### **2.1 *Digital transformation and emerging technologies in accounting information systems***

Conventional definitions frame AIS as structured frameworks that integrate people, processes, data, and technology for organisational decision-making (Romney & Steinbart, 2021). This conceptualisation is inadequate in that it treats technology as supplementary rather than constitutive of accounting practice.

Traditional approaches treat AIS as transactional processors, obscuring how digital technologies fundamentally reconstitute the work of accounting (Kroon et al., 2021). Susanto and Meiryani (2019) trace AIS development from electronic data processing to AI, but such linear accounts overlook critical discontinuities. The shift to AI-enabled predictive analytics represents an epistemic transformation rather than an incremental evolution. Kocsis (2019) further shows that AIS research prioritises technical design while neglecting human dimensions; training, culture, and commitment are often treated as obstacles instead of core elements. More critically, much of the literature assumes technology substitutes for human judgement (Alles, 2020), raising concerns about trust without sufficient empirical support.

Digital transformation has involved the introduction of multiple technologies that are reshaping accounting practices. AI has emerged as a transformative force that goes beyond automation,

with cognitive capabilities previously held exclusively by human accountants (Sutton et al., 2016). AI encompasses machine learning, natural language processing, and computer vision technologies that augment accounting through pattern recognition, anomaly detection, and predictive analytics (Qasim & Kharbat, 2020). In the audit context, AI-powered systems can analyse entire datasets rather than samples, identifying high-risk transactions and unusual patterns with unprecedented precision (Issa et al., 2016). Contemporary applications include automated document processing, real-time fraud detection, and continuous auditing platforms, which fundamentally alter the temporality of assurance work (Petkov, 2020).

Critical analysis reveals substantial implementation challenges that temper AI's transformative promise. Elliot et al. (2020) emphasise the persistent gap between AI capabilities and decision-makers' understanding of appropriate applications, while Peters et al. (2016) demonstrate that business intelligence systems deliver competitive advantage only when integrated with organisational capabilities. Issa et al. (2016) argue that instead of supplementing existing practice, successful AI implementation requires that audit work be reconceptualised. Sutton et al. (2016) challenge the premature dismissals of AI limitations, noting methodological gaps concerning explainability, algorithmic transparency, and contextual appropriateness.

Robotic process automation (RPA) is the software-enabled automation of rule-based tasks through configurable bots that mimic human interactions with digital systems (Willcocks et al., 2017). In accounting, RPA automates transaction processing, reconciliation, invoice management, and report generation and involves high volume, structured inputs, and deterministic logic (Kokina & Blanchette, 2019). Unlike AI, RPA executes predefined workflows without having learning capabilities, positioning it as digital labour rather than cognitive technology (Huang & Vasarhelyi, 2019). Organisations report a 30 to 70 per cent reduction in the time taken for financial closing cycles, enhanced accuracy, and improved audit trails (Alles & Gray, 2019). However, Kokina and Blanchette (2019) provide field evidence that organisations underestimate the requirements of process standardisation, governance restructuring, and internal control redesign. Gotthardt et al. (2020) identify persistent implementation challenges, noting that, despite widespread interest, only 15 per cent of companies consider themselves mature in their RPA utilisation. Critically, while practitioner discourse emphasises cost savings through headcount reduction, Kokina and

Blanchette (2019) find that RPA implementation rarely decreases the workforce. Rather, human capacity is redeployed toward analytical tasks, suggesting complementarity rather than substitution effects.

Data analytics and big data technologies reconceptualise accounting information and processes ranging from retrospective record-keeping to prospective decision support (Bhimani & Willcocks, 2014). Big data analytics, which is characterised by unprecedented data volume, velocity, and variety, enables continuous monitoring, predictive modelling, and real-time pattern detection across entire transactional populations (Warren et al., 2015). Applications of this technology include fraud detection, financial forecasting, and multidimensional performance measurement (Amani & Fadlalla, 2017). However, as Peters et al. (2016) establish, technological sophistication alone is insufficient; competitive benefits materialise only when analytics capabilities are integrated with organisational processes. Rikhardsson and Yigitbasioglu (2018) demonstrate that research on business intelligence emphasises technical functionalities while marginalising behavioural dimensions and implementation challenges. Al-Htaybat and von Alberti-Alhtaybat (2017) identify several fundamental tensions: Big data promises transparency while raising privacy concerns and offers comprehensive insights while risking information overload. Most critically, Issa and Lombardi (2015) demonstrate that big data fundamentally alters audit-judgement processes. However, the literature has inadequately addressed how professions cognitively process expanded information sets, maintain professional scepticism amid algorithmic recommendations, and develop the requisite analytical competencies.

Cloud computing fundamentally restructures AIS by enabling unrestricted access to centralised data repositories, scalable processing capabilities, and real-time collaborative environments (Moudud-UI-Huq et al., 2020). The cloud architecture transforms the temporal dimension of accounting and there is a shift from periodic reporting to continuous data availability, which allows management to make decisions based on current rather than retrospective information (Gao, 2020). Applications include cloud ERP implementation, cloud accounting platforms for small and medium-sized enterprises (SMEs), and cloud-enabled audit systems permitting continuous assurance (Asatiani et al., 2019; Moudud-UI-Huq et al., 2019). The factors driving adoption include technological advantages, organisational benefits, and environmental pressures (Gangwar et al., 2015), with COVID-19 having accelerated adoption. However, as Prasad and Green (2015b) demonstrate, cloud migration

requires a fundamental reconsideration of IT governance structures since traditional control mechanisms have proved inadequate for distributed vendor-managed environments. Yigitbasioglu (2015) identifies persistent concerns regarding data security, confidentiality breaches, and regulatory compliance that inhibit adoption despite the acknowledged benefits. Critically, while quantitative adoption studies explain initial intentions to accept this technology, they inadequately address subsequent adaptation processes: how professions develop cloud-enabled working practices, reconfigure workflows, and acquire competencies in cloud-native environments.

Blockchain technology has introduced a distributed ledger architecture in which cryptographically secured, immutable transaction records are shared among network participants, potentially transforming audit processes by enhancing transparency and introducing automated compliance via smart contracts (Dai & Vasarhelyi, 2017; Rozario & Thomas, 2019). The technology's decentralised structure promises verifiable audit trails, continuous transaction validation, and triple-entry-accounting mechanisms that can eliminate traditional reconciliation requirements (Gomaa et al., 2019). However, fundamental tension persists. Wang and Kogan (2018) identify the confidentiality paradox: while transparency ensures verifiability, accounting practice demands a level of data privacy incompatible with public-ledger visibility. Technical complexity, scalability constraints, and integration challenges create substantial barriers (Gomaa et al., 2019). Existing research mostly addresses technological capabilities but has failed to adequately explore how professionals interpret blockchain-enabled information, develop competencies for distributed ledger environments, or reconceptualise their roles when verification tasks are automated.

The literature reveals an ongoing paradox: while these technologies automate routine tasks, they simultaneously demand higher-order human competencies in data interpretation, ethical judgement, and professional scepticism (Petkov, 2020). The literature offers few insights into how such competencies are developed and applied in practice. These technologies also operate interdependently rather than in isolation. Cloud computing enables the deployment of AI and RPA, while blockchain generates data requiring advanced analytics. As a result, organisations adopting one technology often face cascading implementation demands, although research on these intersections remains limited. Overall, digital transformation in accounting extends beyond technical deployment, requiring that professional roles, competencies, and organisational processes be reconceptualised.

## 2.2 *Impact of technology on the accounting profession*

Digital transformation has fundamentally shifted the accounting profession's core value proposition, precipitating interconnected changes in professional roles, work responsibilities, and occupational identity. Traditional accounting, centred on rule-based bookkeeping and the preparation of financial statements, is now increasingly automated through AI and robotic process automation (Bhimani & Willcocks, 2014). This displacement has proven to be particularly acute in audit contexts. For example, Kokina and Davenport (2017) document the Big Four firms' deployment of AI systems capable of analysing entire datasets within hours through sampling approaches, tasks that previously required months to complete. The technology's capacity to execute repetitive cognitive tasks, recognise patterns, apply rules, and perform mathematical computation systematically undermines the procedural expertise that has historically distinguished accounting professionals. Empirical evidence demonstrates that RPA implementation reduces manual-processing time by 30 to 70 per cent in financial closing cycles and reconciliation activities (Kokina & Blanchette, 2019) and AI automates cognitive tasks, including transaction classification, anomaly detection, and risk assessment. This shift has required role reconfiguration; auditors who previously focused on transactional testing now concentrate on algorithm oversight and exception investigation.

Rather than reducing the need for human accountants, automation has intensified this need. Moll and Yigitbasioglu (2019) describe a growing dilemma: as technologies increasingly automate decision-making, this raises fundamental questions about professional legitimacy. When routine verification becomes algorithmic, what justifies professional status? The International Federation of Accountants (IFAC, 2019) has responded by redefining accountants' roles as system users, designers, managers, and auditors responsible for overseeing digital processes. This shift suggests that professional value lies less in technical execution and more in governing automated systems. At the same time, analytical demands are increasing. Appelbaum et al. (2017) show that enterprise systems push accountants toward performance analysis and strategic decision support. However, many professionals are underprepared since traditional training in accounting standards provides limited exposure to the statistical and computational skills required in data-driven environments.

For auditors, data analytics is fundamentally reshaping competency requirements. Earley (2015) highlights key gaps:

while analytics enables population-level analysis, auditors trained in sampling often lack the statistical skills needed to interpret algorithmic outputs and assess model validity. Data quality also remains a concern; analytics can amplify underlying integrity issues, but auditors may have limited ability to evaluate the provenance of data. This creates a paradox: while routine verification is increasingly automated, more advanced analytical reasoning is required for exception analysis. In response, professional bodies have expanded their competency frameworks to include technology, analytics, and cybersecurity (IFAC, 2019). However, expectations continue to rise, and expertise across multiple domains is demanded, which may be unrealistic given typical career development pathways.

These technological shifts have precipitated fundamental questions regarding professional identity and boundaries. Historically, being an “accountant” denoted having technical expertise in financial reporting, procedural mastery in bookkeeping, and statutory authority in attestation competencies acquired through formal certification. When these technical skills become embedded in algorithms, professional identity can no longer rest on procedural knowledge (Moll & Yigitbasioglu, 2019). The identity crisis manifests through proliferating role titles: management accountants become “business analysts” leveraging enterprise systems for strategic support, auditors become “algorithm supervisors” monitoring AI outputs, and job advertisements seek “data scientists” with accounting knowledge rather than accountants with data skills (Pan & Seow, 2016). These evolving designations signal migration beyond traditional boundaries. However, they simultaneously risk diluting professional distinctiveness because the competencies required increasingly resemble those of adjacent disciplines.

The literature reveals that the impact of technology on the accounting profession has three dimensions. First, with role transformation, accountants shift from manual bookkeeping to strategic advising, from routine tasks to analytical responsibilities, and from backwards-looking record-keeping to forward-looking decision support. However, professionals trained in rule applications lack the interpretive flexibility and statistical literacy required for these new roles (Kokina & Davenport, 2017; Appelbaum et al., 2017). Second, while automation reduces routine tasks by 30 to 70 per cent, it simultaneously increases demands for data interpretation and introduces new governance responsibilities related to algorithmic auditability and cybersecurity, areas in which existing curricula provide limited preparation (Moll & Yigitbasioglu, 2019). Third,

challenges related to professional identity emerge as technical skills commodify and boundaries blur, shifting value toward analytical judgement and strategic advising. However, researchers have paid limited attention to how professionals experience the devaluation of expertise and identity reconstruction. Together, these dimensions suggest that technological transformation extends beyond task automation to the reconstitution of professional work and identity. However, the existing literature offers few insights into how professionals experience and navigate these changes, highlighting the need to examine both their perceptions and their adaptation processes.

### *2.3 Theories of technology adoption*

Technology acceptance research has been dominated by Davis's (1989) TAM, which posits that users' acceptance intentions and adoption of technology is shaped by its perceived usefulness and ease of use. This theory is extended by Venkatesh and Davis (2000) through TAM2, which incorporates social influence and cognitive mechanisms. Venkatesh et al. (2003) synthesise multiple theories into the UTAUT and identify four determinants: performance expectancy, effort expectancy, social influence, and facilitating conditions, which are moderated by gender, age, experience, and voluntariness of use. These models have been widely applied in accounting, particularly in the examination of AIS (Yasa & Devi, 2019) and extended UTAUT2 frameworks (Zaini et al., 2020). Applications span contexts from micro-enterprises to the implementation of advanced systems in large organisations (Kamanga & Alexandra, 2019).

A critical examination reveals limitations that constrain the applicability of these models to contemporary technology-driven transformations. Marshall et al. (2015) show that technology-acceptance research inadequately explains how professionals perceive and appropriate IT affordances, suggesting that acceptance intentions alone cannot account for technology-mediated changes in work. Malatji et al. (2020) argue that TAM explains only around 40 per cent of technology use, as it oversimplifies by overlooking contextual factors and emerging technologies that reshape user roles. More fundamentally, TAM and the UTAUT focus on initial adoption decisions rather than ongoing adaptation. They emphasise intention over the development of capabilities and pre-implementation perceptions over post-implementation transformations, limiting their ability to capture continuous learning and role reconfiguration. Moreover, these models privilege individual cognition while

neglecting organisational and institutional dynamics and shifts in professional identity. These limitations highlight the need for frameworks that extend beyond technology acceptance to address professional adaptation, competency evolution, and organisational transformation.

## 2.4 *Dynamic capabilities theory*

Dynamic capabilities theory addresses the limitations of adoption models by examining how organisations sense environmental changes, seize opportunities, and reconfigure resources to maintain their competitive advantage in dynamic environments (Teece et al., 1997). The theory delineates three core processes: sensing opportunities through environmental scanning, seizing opportunities via resource mobilisation, and reconfiguring organisational structures through continuous transformation. Unlike static perspectives, dynamic capabilities emphasise the capacity of organisations to purposefully modify resource bases in response to technological disruption, which is critical in rapidly evolving environments.

In accounting contexts, technology functions as a catalyst rather than a determinant of capabilities. Prasad and Green (2015a) show that dynamic AIS capability emerges from the integration of flexible infrastructure, business intelligence systems, and professionals with IT competencies. However, technological sophistication alone is insufficient; capability development requires the simultaneous evolution of human skills and organisational processes. Moreno et al. (2020) further demonstrate that analytics supports operational and dynamic capabilities, particularly in turbulent environments. Applied to professional adaptation, this suggests that adoption represents only the initial sensing stage. Professionals must go on to develop competencies and reconfigure their practices and identities through ongoing transformation. Unlike adoption models that focus on intention, the dynamic capabilities approach emphasises continuous adaptation through sensing, seizing, and reconfiguring. This makes the framework particularly relevant for understanding how professionals respond to technological change across contexts.

## 2.5 *Synthesis and Research Gaps*

The preceding review shows that while the existing literature documents technological capabilities and their impacts on accounting roles and identities, there are critical gaps regarding the professional transformation processes. Research grounded in technology

acceptance models (TAM/UTAUT) focuses on pre-implementation adoption intentions. It pays limited attention to post-implementation adaptation through which professionals navigate technological change. Little is known about how professionals interpret the multidimensional impacts of technology and make sense of its implications for their work. Although prior studies have identified key competencies, such as interpretive flexibility, statistical literacy, and algorithmic transparency, they offer limited insight into how these capabilities are developed. The learning pathways, enabling conditions, and links between individual adaptation and organisational-capability evolution remain underexplored. Dynamic capabilities theory offers a useful lens, conceptualising adaptation as ongoing sensing of changes, seizing of opportunities, and reconfiguring of resources. However, there are few empirical studies applying this perspective to accounting professionals' lived experiences of technological transformation.

This study addresses these gaps by investigating how the accounting profession navigates technological transformation within the context of AIS. Building on the dynamic capabilities theory, we examine perception processes (sensing) and adaptation mechanisms (seizing & reconfiguring) inadequately addressed by acceptance frameworks, we explore how professionals perceive technology impacts and develop capabilities in response to AI, RPA, big data analytics, cloud computing, and blockchain implementation.

### **3. Methodology**

#### **3.1 *Research design***

This qualitative study employs semi-structured in-depth interviews and reflexive thematic analysis to investigate how Thai accounting professionals perceive and adapt to technology-driven AIS transformations. An interpretivist approach has been adopted to understand subjective experiences and socially constructed meanings within professional contexts (Schwandt, 2000). This design is suited to the exploratory nature of a study of emerging phenomena such as AI, RPA, blockchain, and cloud technologies, where existing theory remains limited and contextual understanding is needed (Stebbins, 2001).

Data were collected between March and May 2021 during Thailand's second COVID-19 wave, when digital transformation accelerated across organisations. Three professional environments were examined: the Big Four audit firms (PwC, Deloitte, EY, and

KPMG) with established digital platforms; listed corporations implementing ERP and cloud systems; and IT consulting firms serving diverse clients, including SMEs. This multi-context approach allows us to capture variation in technological maturity, resources, and professional culture.

The timing of data collection provides an important contextual lens. Conducted during a period of rapid technological change, the interviews capture professionals' immediate responses to digital transformation. As the study draws on semi-structured interviews, the data reflect underlying sensemaking processes and identity-related adaptations rather than time-specific attitudes. The identified patterns, including mindset reorientation, identity reconstruction, and capability development, are, therefore, interpreted as indicative of broader adaptive processes rather than being limited to the specific conditions of 2021.

### *3.2 Participant Selection*

Using purposive sampling, 10 senior professionals with direct involvement in technology-driven AIS were recruited: four auditors from the Big Four firms (external audit: n=3; internal audit: n=1), three corporate accountants from the manufacturing, health care, and energy sectors, and three IT consultants specialising in AIS implementation. Participants had an average of 7.3 years of experience (range: 5–10 years) and held strategic decision-making roles.

The sample size was determined using the principle of “information power” (Malterud et al., 2016) rather than saturation. Given the study's focus, the inclusion of senior professionals with domain-specific expertise, and the depth of the interviews (average 82 minutes), 10 participants provided a sufficient basis for exploratory analysis. While the sample size limits statistical generalisability, this is consistent with an interpretivist design that prioritises in-depth understanding of professional experiences. This approach aligns with established qualitative research in accounting (Vasileiou et al., 2018). Table 1 presents the participant details.

**Table 1: Profile of Expert Participants**

Code	Organisation	Role/Position	Group	Years of Experience
R1	Big Four	Senior Auditor	Auditor	10 years
R2	Big Four	Audit Manager	Auditor	8 years
R3	Big Four	Senior Auditor	Auditor	5 years
R4	Big Four	Senior Manager (Internal Audit)	Auditor	7 years
R5	Manufacturing	Accounting Manager	Accountant	5 years
R6	Health care	Finance Manager	Accountant	6 years
R7	Energy and technology	Accounting Director	Accountant	5 years
R8	ERP and accounting solutions consulting firm	IT Consulting Manager	Consultant	9 years
R9	ERP and data integration consulting	IT Solution Architect	Consultant	10 years
R10	SME digital transformation consulting	Senior Consultant (SME AIS Implementation)	Consultant	8 years

### 3.3 Data Collection

We conducted semi-structured interviews via Zoom with participants in Thailand, each lasting 77 to 88 minutes (mean: 82 min). The interview protocol covered professional background, technologies in use, perceived impact on work processes, adaptation strategies, required competencies, and future directions. Open-ended questions were asked to encourage rich narratives, for example, “How has technology changed your role?” and “What competencies are essential in technology-driven environments?”

The interviews were audio-recorded with consent, transcribed verbatim by the researcher, and returned to the participants for verification. No substantive changes were required. This process generated approximately 14 hours of recorded data.

### 3.4 Data Analysis

Our reflexive thematic analysis followed Braun and Clarke’s (2019) approach, acknowledging the researcher’s active role in knowledge construction. The analysis proceeded in six phases. Phase 1

(familiarisation) involved repeated reading of Thai transcripts. Phase 2 (coding) involved systematic coding using Microsoft Word and Excel to assign descriptive labels to data extracts (e.g., “from recorder to analyst,” “expanded advisory responsibilities”). In Phase 3 (theme development), related codes are grouped into 18 candidate themes. In Phase 4 (review), themes were refined by checking their coherence and fit with the dataset, related themes were merged and weak patterns discarded, yielding eight major themes. Phase 5 (definition) involved each theme being defined with clear boundaries to avoid overlap, and in Phase 6 (reporting), representative quotations were selected to illustrate themes, with findings structured to address RQ1 (three themes on technology perceptions), RQ2 (four themes on adaptation), and one cross-cutting theme spanning both questions.

### *3.5 Trustworthiness and rigour*

Trustworthiness was established according to the criteria of Lincoln and Guba (1985, cited in Stahl & King, 2020). Credibility was ensured through prolonged engagement (82-minute interviews), triangulation across three professional groups, and member checking. Transferability was supported by detailed contextual descriptions that enable readers to assess relevance. Dependability was addressed through audit trails documenting sampling, interview protocols, and coding decisions. Confirmability was demonstrated through extensive participant quotations and the iterative comparison of themes with transcripts to ensure that the findings reflected participants’ perspectives rather than the researchers’ assumptions.

### *3.6 Ethical Considerations*

This study was approved by the Human Research Ethics Committee of Srinakharinwirot University, Thailand (Protocol Code: SWUEC/E-121/2563) on June 12, 2020. All procedures adhered to the relevant national regulations. The participants provided written informed consent after receiving detailed information about the study. Confidentiality was maintained through participant coding (R1-R10) and secure data storage with password protection. The data will be retained for five years per institutional policy.

## **4. Findings**

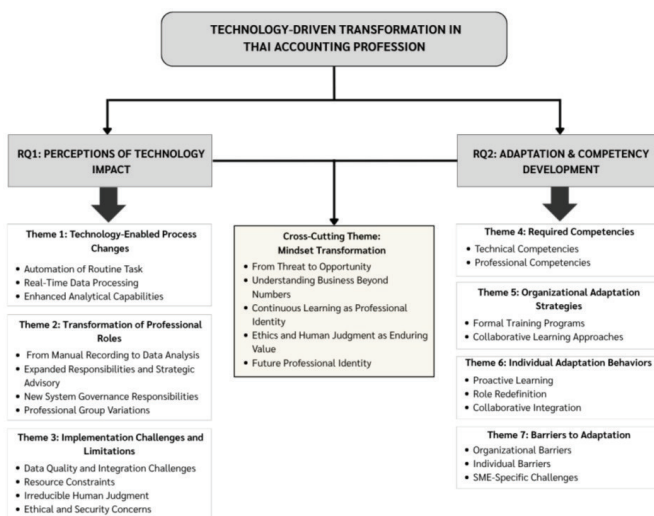
Our thematic analysis of 10 in-depth interviews revealed eight major themes organised in relation to the two research questions. Three themes address RQ1 on perceptions of technology-driven

change in AIS: technology-enabled process changes (Theme 1) capture automation, real-time capabilities, and enhanced analytics; transformation of professional roles (Theme 2) highlights the shift from manual recording to strategic analysis; and implementation challenges and limitations (Theme 3) reflects the opportunities and constraints of technology adoption.

Four themes address RQ2 on competency adaptation: required competencies (Theme 4) concerns key technical and professional skills; organisational adaptation strategies (Theme 5) include formal training and structural initiatives, while individual adaptation behaviours (Theme 6) capture personal learning approaches; and barriers to adaptation (Theme 7) includes organisational and individual obstacles.

Mindset transformation (Theme 8) emerged inductively as a cross-cutting theme and represents a fundamental reconceptualisation of professional value in response to automation. It functions as a mediating mechanism linking technology perceptions (RQ1) to adaptation behaviours (RQ2) and highlights identity as a key cognitive lens through which professionals respond to change. This finding underscores the value of inductive qualitative inquiry. Figure 4.1 illustrates the thematic structure and relationships among themes and research questions.

**Figure 1: Thematic Structure Showing Relationships Between Eight Themes and Research Questions**



Source: Author's own work

## 4.1 Perceptions of technological impact on AIS (RQ1)

Technology fundamentally transforms accounting processes through automation, real-time capabilities, and enhanced analytics (Theme 1), precipitating a redefinition of professional roles from transactional execution toward strategic advising (Theme 2). However, there are persistent implementation challenges (Theme 3), specifically, issues of data quality, resource constraints, the need for human judgement, and tempered transformation. These perceptions ground the adaptation strategies examined in RQ2.

### 4.1.1 Theme 1: Technology-enabled process changes

Technology fundamentally alters accounting processes through the automation of routine tasks, real-time processing capabilities, and enhanced analytical functions, driving the role transformation captured by Theme 2.

**Automation of routine tasks.** RPA eliminates repetitive work with dramatic efficiency: “We use RPA for routine work such as issuing invoices, managing accounts receivable, and daily bank reconciliations. What previously required multiple staff members can now be done by robots” (R6). One energy company quantified the impact stating that they “reduced month-end closing from 15 days to approximately 5 days” using RPA and AI for transaction verification (R7). Consultants confirmed the widespread adoption of these technologies, automated invoice data entry, bank reconciliation, and financial report generation (R9).

**Real-time data processing.** Cloud-based systems have shifted the temporality of accounting from periodic retrospection to continuous access: “Cloud Accounting allows executives to view financial reports in real-time from all branches without waiting for monthly closing” (R5). Auditors explained: “We now do real-time assurance more frequently because systems can analyse data throughout the year continuously” (R2). This capability transforms periodic sampling into continuous monitoring.

The COVID-19 pandemic was a critical catalyst for these transformations. As R5 noted, “We changed from the old paper-based system requiring signatures to full cloud accounting during COVID.” In the manufacturing context, timelines were compressed, with “closing cycles reduced from 15 days to approximately 5 days” through the combined deployment of RPA and AI necessitated by remote work requirements (R7). SME consultants observed particularly dramatic shifts: “Most SMEs recently transitioned from Excel to programs such as FlowAccount and PEAK within 2 to 3

years, especially during COVID-19" (R10). Remote access transformed from optional convenience to operational necessity, creating an urgency that overcame the previously persistent resistance.

**Enhanced analytical capabilities.** AI and Big Data have enabled previously impossible population-level analyses. "We can analyse in detail if certain raw materials are used abnormally high, we immediately know the cause" (R5). Auditors described how "AI and data analytics systems rapidly detect anomalies, duplicate entries, excessive payments, high-risk transactions" (R1), enabling full population testing versus sampling. "From examining sample data, we now access much more actual data, reducing errors and increasing client confidence" (R3).

Patterns of technology adoption vary systematically across professional contexts. The Big Four auditors prioritised global digital audit platforms: Aura (PwC), Omnia (Deloitte), Canvas (EY), and Clara (KPMG) integrated with AI analytics for anomaly detection and continuous auditing capabilities to emphasise enhancing audit quality through full population coverage and risk detection. Corporate accountants focused on enterprise ERP systems (SAP S/4HANA, Oracle NetSuite) combined with Power BI dashboards and RPA for closing cycle automation, prioritising management decision support through real-time reporting and strategic insights. IT consultants working with SMEs emphasised cloud accounting platforms (FlowAccount, PEAK, and QuickBooks) to facilitate basic digitisation, affordable automation, and compliance support in resource-constrained contexts. The use of blockchain remained exploratory and was only mentioned by R4 in relation to enhancing transparency. This technology stack variation reflected differing organisational capabilities and professional mandates: the Big Four employed their sophisticated global infrastructure with data-specialist support, corporations balanced operational efficiency with transformation demands, while SMEs confronted fundamental resource constraints, creating qualitatively different adoption barriers.

These process transformations, accelerated by the urgency of the pandemic, necessitated fundamental role redefinitions. When transactional work was automated, professionals confronted questions about the value of that work, as examined in Theme 2.

#### *4.1.2 Theme 2: Transformation of professional roles*

As technology automated routine tasks (Theme 1), participants reported fundamental shifts in their roles from transactional processing toward strategic value creation.

**From manual recording to data analysis.** The most pronounced transition was from manual data entry toward data analysis: “Accountants have changed from ‘recorders’ to ‘data controllers and analysts.’ We must understand business holistically, not just accounting” (R5). Auditors similarly described evolution from “data verifiers” to “data analysts and interpreters who must have strategic perspectives” (R1), while accounting directors emphasised the transformation from “bookkeepers” to “financial data managers” (R7). These transitions proved profound because they challenged traditional accounting identity centred on procedural accuracy. When the RPA performed invoice processing and AI detected anomalies – tasks historically constituting core competencies – accountants confronted the commodification of technical skills, necessitating repositioning around analytical interpretation and strategic advising.

**Expanded responsibilities and strategic advising role.** The participants described a significant increase in responsibility. Auditors emphasised the evolution toward strategic advising: “Clients today don’t just want audit reports; they want insights from the data we analyse” (R2). Internal auditors shifted from being “post-event reviewers” to “strategic risk advisors” who “can propose control measures before problems occur” (R4). Corporate accountants anticipated becoming “real-time financial data analysts and data assurance providers” (R6), extending their professional purview from technical accounting toward business strategy.

**New system governance responsibilities.** Technology has introduced entirely new responsibilities around system oversight: “If employees don’t understand the system well or don’t know how to verify the system’s logic, errors can occur without awareness” (R5). Auditors must configure the logic and parameters for analysis by setting rules that identify “transactions with duplicate approvals” as risks (R2). One director captured the tension: “I always emphasise that ‘people must be smarter than machines’ we must understand what the system calculates, not blindly trust” (R7).

**Professional group variations.** While role transformation proved universal, its emphasis varied by context. External auditors highlighted the evolution toward “digital assurance providers,” emphasising transparency through full population testing. Corporate accountants stressed that the transformation into business analysts in manufacturing prioritised cost control (R5), in health care emphasised data privacy (R6), and in energy focused on ESG reporting (R7). Consultants positioned professionals as “ecosystem architects” rather than mere users.

#### 4.1.3 Theme 3: Implementation challenges and limitations

Despite the transformative process changes (Theme 1), enabling the redefinition of roles (Theme 2), participants acknowledged persistent obstacles in tempering the promises of technology.

**Data quality and integration challenges.** Poor data quality is a significant barrier: “The main limitation is data quality and system compatibility, because each client uses different ERP. Some don’t have structured data storage yet” (R1). Another concurred: “Many organisations still store data unsystematically or have multiple subsystems that don’t connect” (R2). The consultants interviewed emphasised that “many organisations use multiple systems, accounting, sales, inventory, all separated. Data doesn’t connect” (R10). Data cleansing often consumed 30 to 40 per cent of the implementation timeline, negating the efficiency gains of automation. Challenges manifested differently depending on the context: the Big Four auditors confronted the variance in the quality of client data and the complexity of format standardisation across diverse ERP environments; corporate accountants emphasised cross-departmental data inconsistencies and the challenges of legacy system migration, while SME consultants described persistent Excel dependency and minimal data-governance infrastructure.

**Resource constraints.** The SME context reveals distinctive resource barriers: “Most organisations still lack resources, people, money, and knowledge” (R10). These constraints limited implementation and were absent in better-resourced contexts. Even well-resourced organisations faced major challenges, including “insufficient process standardisation requirements, governance restructuring needs, and internal control redesign imperatives accompanying RPA adoption” (R2), suggesting that success required developing organisational capability beyond technological investment. The Big Four firms confronted client resistance to technology investment and extended timelines for data preparation, and had to manage limited capacity for change and for parallel system operations during transitions. SMEs faced severe budget constraints, personnel scarcity, and fundamental knowledge deficits, with hybrid IT accounting skills proving rare.

**Irreducible human judgement.** Participants consistently emphasised the technology’s inability to replace their professional judgement: “While AI rapidly detects data anomalies, auditors must assess whether issues constitute material misstatements or technical anomalies, requiring strategic perspectives” (R1). As R3 explains, “although systems analyse well, determining whether findings

are material still requires professional judgement". This insistence functioned as operational reality and boundary work, defining expertise domains in which professional capabilities transcend algorithmic processing. Context-specific judgement requirements also emerged: auditors emphasised materiality assessment and contextual interpretation of algorithmic outputs; corporate accountants stressed business logic verification and exception handling; and consultants focused on assessing solution appropriateness and building trust between users and systems.

**Ethical and security concerns.** Data privacy and cybersecurity have become critical concerns: "Patient data is highly sensitive. We must have encryption and strictly controlled access rights" (R6). Auditors noted legal obligations to ensure client data access does not violate laws, making data privacy and cybersecurity awareness essential competencies (R4). Sector-specific concerns proved particularly pronounced: in health care, the privacy of patient data was prioritised, energy companies emphasised ESG data integrity, while SMEs confronted security implementation challenges with limited expertise, relying heavily on vendor security provisions and having to navigate cost-benefit trade-offs.

Critically, the assertion that "people must be smarter than machines" and reconceptualising professional value around judgement transcending automation represented more than operational principles. They functioned as psychological frameworks enabling practitioners to maintain their relevance amid the commodification of expertise. These identity negotiations foreshadow mindset transformation (Theme 8), which concerns how professionals reconstructed fundamental conceptions of expertise to sustain status despite the automation of technical skills.

## ***4.2 Adaptation and Competency Development (RQ2)***

Having perceived the transformative impact of technology (RQ1), professionals described their multifaceted responses encompassing required capabilities, organisational support structures, individual strategies, and persistent barriers. Next, we present four themes relating to how accounting professionals adapt and develop competencies in response to technological transformations.

### *4.2.1 Theme 4: Required competencies*

Participants identified essential competencies from technical capabilities to professional skills.

**Technical competencies.** Digital literacy emerged as foundational, with participants emphasising understanding rather than programming expertise. R7 clarified that for “technology literacy [you] must understand ERP systems, RPA, and basic AI. Coding ability isn’t necessary, but [you] must know how they work.” R4 specified: “Technically, [you] should know basic data analytics, Python, SQL, and understand AI principles.” This frames technical competency as an interpretive capability; accountants must comprehend system logic to configure parameters and validate outputs, yet do not need to write code.

Data analytics have proven to be universally critical yet inadequately developed. R1 identified a gap: auditors trained in sampling methodologies lack the statistical competencies needed to interpret algorithmic outputs and assess model validity. This reflects the epistemic disconnect between traditional training, which emphasises procedural compliance, and contemporary requirements that demand probabilistic reasoning. Similarly, corporate accountants required proficiency in visualisation tools (R6), enabling the translation of complex datasets into business intelligence.

**Professional competencies.** Analytical and critical thinking capabilities were emphasised across all groups. R7 stated that for “analytical thinking and data interpretation [you] must be able to read dashboards, analyse trends, and connect business data.” R3 explained: “analytical and critical thinking because even with abundant data, what’s important is analysing and interpreting correctly.”

Communication skills are essential for translating technical insights into nontechnical stakeholders. R5 emphasised explaining data “in ways they understand easily,” while R6 noted the necessity of explaining “overall financial pictures” rather than speaking “only accounting language.” This positions accountants as interpretive bridges between systems and decision-makers.

Continuous learning involves a fundamental transformation in competency. R7’s observation that survivors are “those who learn fastest” rather than “most skilled” signals a shift from static expertise toward adaptive capability, challenging traditional professional identity grounded in accumulated knowledge.

Ethical judgement has emerged as critical, particularly regarding data usage. R7 stated: “Communication and Ethical Judgement, accountants must communicate results to executives in strategic terms while considering ethics in data usage.” R4 emphasised that “if we maintain these values, ethics, neutrality, and professional judgement,

I believe this profession will remain important to organisations for a long time.”

#### 4.2.2 Theme 5: Organisational adaptation strategies

Organisations implemented structured approaches to build technological capabilities.

**Formal training programs.** The Big Four firms have established comprehensive digital upskilling initiatives. R1 described regional “Digital Upskilling Programmes” that ensure “everyone has the same digital mindset,” while R7 detailed a corporate “Finance Digital Transformation Roadmap” spanning the reskill, upskill, and cross-skill stages. This phased approach acknowledges that capability development requires deliberate scaffolding rather than one-time training.

R2 explained their approach: “We have the ‘firm’s Digital DNA’ project training all levels from staff to partner” and R3 noted their “‘firm’s Digital Learning Pathway’ allowing all-level employees to learn through online systems, plus digital bootcamp programs simulating real audit situations using automated systems.”

Corporate accountants receive sector-specific training. As R7 detailed, “We have a program called ‘Finance Digital Transformation Roadmap’ divided into three stages: reskill, upskill, cross-skill.” This framework systematically develops system understanding, proficiency in analytical tools, and cross-functional collaboration capabilities.

R7 also encouraged professional certifications: “We support employees taking certifications such as CISA, CDAA, and ESG reporting courses, because environmental and sustainability data will be part of accounting systems in the future.”

**Collaborative learning approaches.** Cross-functional teams have emerged as critical mechanisms. R3 explained that EY operates through teams comprising “accountants, data analysts, and ERP specialists working together,” enabling knowledge transfer through collaborative problem-solving. This recognised technology integration demands expertise beyond traditional accounting, making isolated skill acquisition insufficient.

However, this also has uncomfortable implications: successful adaptation increasingly depends on organisational infrastructure rather than individual initiatives. Professionals in resource-constrained settings lack the structured training and specialist support that advantaged contexts provide, creating capability disparities that individual motivation cannot overcome.

#### 4.2.3 Theme 6: Individual adaptation behaviours

Beyond organisational initiatives, participants described personal strategies for navigating technological change.

**Proactive learning.** Self-directed learning was common across all the groups. R5 stated that “accountants must learn continuously and be open-minded about technology.” Participants noted that they pursued online courses, experimented with new tools, and sought opportunities to apply emerging technologies in their work.

**Role redefinition.** Professionals actively and strategically repositioned themselves. R6 articulated the future vision: “Accountants will become real-time financial data analysts and data assurance providers.” R2 emphasised focusing on value-adding activities, stating that “clients today don’t just want audit reports; they want insights from the data we analyse.”

**Collaborative integration.** Effectively working with IT and data specialists is essential. Participants described building hybrid expertise through sustained collaboration with technical teams, learning technical terminology and concepts, and developing the ability to translate between the accounting and technical domains.

#### 4.2.4 Theme 7: Barriers to adaptation

Despite positive trajectories, participants identified significant obstacles.

**Organisational barriers.** Resource constraints disproportionately affect smaller organisations. R10 explained: “The main issues are ‘fear of change’ and ‘lack of people who understand both accounting and technology.’ SMEs often think these systems are expensive and complex.” Budget limitations, insufficient training time (R2), and legacy system constraints (R9 and R10) have hindered adoption.

**Individual barriers.** Psychological resistance persisted among practitioners. R10 noted that “fear of change and lack of people who understand both accounting and technology” and R6 observed that “Many older accountants are accustomed to traditional accounting, recording numbers, checking documents one by one. But now systems do almost everything.” Age and generational differences influence receptivity to technological changes.

**SME-specific challenges.** Consultants working with SMEs identified distinct challenges. R10 noted that, beyond cost, knowledge gaps and having limited technical staff created significant barriers. Many organisations lack personnel who can bridge accounting and technology, hindering effective implementation even when systems are in place. Overall, these findings highlight competency

transformation as a multilevel phenomenon requiring coordinated individual, organisational, and institutional responses. Importantly, they challenge the view that adaptation is solely an individual responsibility, showing that the organisational infrastructure shapes whether effort translates into capability.

### *4.3 Cross-cutting theme: Mindset transformation*

A pervasive theme that implicates both research questions was the fundamental shift in professional mindset regarding the role of technology in the accounting profession. This theme manifested across perceptions (RQ1) and adaptation strategies (RQ2), relating to deeper cognitive and attitudinal transformation beyond technical skill acquisition.

**From threat to opportunity.** Participants across all groups emphasised reframing technology from being a potential threat to being a professional enabler. R1 explicitly advised: “View technology as an opportunity, not a threat. AI or automation systems don’t replace humans but will enhance auditors’ capabilities.” This perspective was echoed by R7: “Technology won’t replace accountants but will elevate accountants.”

This reframing involved recognising technology as augmenting rather than replacing human judgement. R2 explained that automation liberates professionals from routine tasks, enabling them to focus on strategic analysis and advisory roles that require human insight. Participants consistently positioned themselves as technology’s beneficiaries rather than its victims.

**Understanding business beyond numbers.** A critical mindset shift involved expanding from technical accounting expertise to a holistic business understanding. R6 observed that “Big Data requires accountants to understand ‘business’ more, not just ‘accounting’ alone.” R5 elaborated: “It’s a role change from ‘accountant’ to ‘business analyst,’ because we must understand business holistically.”

This transformation requires accountants to contextualise financial data within broader organisational strategies, taking account of industry dynamics and stakeholder needs. Numbers become meaningful only when interpreted through a business logic and with strategic implications in mind.

**Continuous learning as professional identity.** Rather than viewing learning as episodic training, the participants embraced continuous learning as a core professional identity: “People who survive in this profession aren’t the most skilled, but those who ‘learn fastest’” (R7). This represents a shift from static expertise to the

development of dynamic capability. R5 reinforced this perspective: "Accountants must learn continuously and be open-minded about technology, because it's not an enemy but a tool that makes us better." Learning is not merely a response to change but an intrinsic professional characteristic.

**Ethics and human judgement as an enduring value.** Paradoxically, technological advancement heightened awareness of unique human contributions, particularly ethical judgement and professional scepticism. R4 argued that "if we maintain these values – ethics, neutrality, and professional judgment – I believe this profession will remain important to organisations for a long time." R7 stressed that ethical considerations in the use of data distinguish professionals from mere technical operators: "Accountants must communicate results to executives in strategic terms while considering ethics in data usage." Rather than diminishing their relevance, technology has magnified the importance of human values.

**Future professional identity.** Participants articulated the evolution of identities: R2 envisioned "digital assurance providers," R6 projected "real-time financial data analysts," and R7 described "financial data managers," characterised by sharing strategic orientation, real-time capabilities, and advisory relationships with stakeholders. Across groups, professionals viewed technology not as determining their professional fate but as a context in which they actively shaped their evolving roles.

Participants articulated their evolving professional identities as "digital assurance providers," (R2) "real-time financial data analysts," (R6) and "financial data managers," (R7) all reflecting a shared emphasis on strategic orientation, real-time capabilities, and advisory roles. Across groups, the professionals interviewed saw technology not as determining their future, but as a context in which they could actively shape their own roles. This cross-cutting theme illuminated that successful adaptation to technological transformation requires more than acquiring new skills. It requires fundamentally reconceiving one's professional purpose, relationship with technology, and source of professional value in digitally transformed environments.

Professional context fundamentally shapes the patterns of technology adoption (Table 2) and trajectories of professional transformation (Table 3). These comparative analyses across the Big Four audit firms, listed corporations, and IT consulting firms serving SMEs demonstrate that successful transformation requires an alignment of technological sophistication and organisational capabilities.

These eight themes and their cross-case variation highlight the multifaceted nature of technology-driven professional transformation in the Thai accounting context. The interpretation of the findings should take the qualitative design into consideration. Reflexive thematic analysis facilitates the in-depth exploration of participants' experiences. However, it is important to note that the findings represent interpretive constructions shaped by participants' accounts and the researcher's analytical engagement. Participant narratives may involve retrospective sensemaking, and the process of theme development is inherently influenced by the researcher's perspective.

The purposive sample of 10 senior professionals, while appropriate for the study's exploratory aims, limits statistical generalisability. Transferability to other contexts depends on whether there are differences in the technological maturity, institutional setting, and professional environment. Nonetheless, the consistency of the themes relevant across three professional contexts supports the robustness of the analytical insights. The implications of these findings are discussed in the following section.

**Table 2: Technology Adoption Patterns Across Professional Contexts**

Technology Dimension	Big Four Auditors (n=4)	Corporate Accountants (n=3)	IT Consultants (n=3)
Primary technological focus	Digital audit platforms with integrated AI analytics (Aura, Omnia, Canvas, Clara)	Enterprise ERP systems (SAP S/4HANA, Oracle NetSuite) + cloud accounting + RPA	Cloud accounting SaaS (FlowAccount, PEAK, QuickBooks) + basic automation
Specific technologies deployed	AI (anomaly detection), data analytics (population testing), RPA, cloud platforms, continuous auditing, Blockchain (exploratory - R4)	Cloud ERP, RPA (closing automation), AI-OCR (invoice processing), big data, power BI, ESG tools	Cloud accounting, RPA (basic), API integration, AI (limited implementation), mobile access
Adoption timeline and maturity	Early adopters (2017-2019), High maturity, COVID-19 accelerated continuous auditing	Mid-stage adopters (2018-2020), Growing maturity, COVID-19 forced remote capabilities	Recent adopters (2019-2021), variable maturity, COVID-19 created urgent demand
Implementation challenges	Client data quality inconsistency, multi-ERP format standardisation, ethical AI use governance	Employee resistance to change, legacy system data migration, cross-department data silos	SME budget constraints, minimal data governance infrastructure, hybrid skill scarcity
Data governance and security	High: Global privacy protocols, ethical AI frameworks, multi-jurisdictional compliance	Medium-high: sector regulations (health care privacy, ESG), department-level standards	Low-medium: Basic security, vendor-dependent protocols, cost-benefit trade-offs

Note: Blockchain was mentioned by one internal auditor (R4) and remains exploratory rather than systematically deployed. Adoption timelines based on participant reports. The COVID-19 pandemic (March-May 2021 data-collection period) functioned as a catalyst for digital transformation across all contexts.

**Table 3: Professional Transformation and Adaptation Patterns**

Professional dimension	Big Four auditors (n=4)	Corporate accountants (n=3)	IT consultants (n=3)
Core role transformation	Document verifier → strategic risk advisor + digital assurance provider with transparency focus	Bookkeeper/recorder → business intelligence analyst + data-driven strategic advisor	System implementer → strategic business partner + digital transformation change agent
Organisational adaptation support	Structured global programmes (digital DNA, digital upskilling), regional training hubs, certification support	Phased transformation road maps (reskill→upskill→cross-skill), sector-specific curricula	Learning-by-doing exposure, client project training, vendor certification programmes
Collaboration and learning model	Cross-functional teams (accountants + data scientists + ERP specialists), peer learning communities	Internal capability building + strategic external consultant partnerships for complex implementations	Client co-creation approach + vendor technical support + peer SME consultant networks
Individual adaptation strategies	Technical certifications (CISA, CDAA), AI audit methodology, global standard compliance expertise	Internal reskilling initiatives, process optimisation focus, strategic business acumen development	Client education and change management, technology simplification skills, hybrid expertise building
Envisioned future identity	ESG assurance specialist, AI audit governance expert, continuous real-time auditor, digital transparency provider	Business intelligence analyst, predictive financial modeller, real-time ESG data manager, strategic CFO advisor	SME digital transformation advisor, cloud-to-cloud integrator, accessible AIS ecosystem designer, tech-enabled consultant

Note: Sample sizes reflect purposive sampling for information power. The Big Four group includes external (n=3) and internal auditors (n=1) to capture audit-function diversity. Role transformations and future identities represent participant-articulated visions rather than formal organisational designations. Notably, cross-cutting mindset transformation (Theme 8) mediates the successful progression from current to envisioned roles.

## 5. Discussion and implementation

### 5.1 *Technology impact and role redefinition*

The findings indicate that the impact of technology on accounting extends beyond efficiency gains to include fundamental changes in how financial information is produced and used. Consistent with Kokina and Blanchette (2019), professionals reported substantial efficiency gains and closing cycles compressed from 15 to 5 days through RPA and AI deployment (Theme 1). More importantly, interviewees described how real-time reporting reshapes the timing and purpose of accounting information. Rather than

serving as retrospective records, financial data are increasingly used to support ongoing decision-making. When executives access reports immediately (R6) or business owners adjust their strategy without month-end delays (R10), financial information shifts from retrospective records to prospective decision support, representing an epistemic transformation rather than an incremental improvement.

Participants also highlighted the shift from sampling-based approaches to full population analysis. While this enhances analytical capability, it does not eliminate the need for professional judgement. The experiences of Big Four auditors with platforms such as Aura, Omnia, and Canvas demonstrate the feasibility of comprehensive data analysis that was previously impossible. However, technological capability proved to be insufficient on its own. As one auditor noted, the ability to interpret algorithmic outputs remains a critical challenge. This suggests that technological capability must be complemented by appropriate analytical competencies.

Role redefinition (Theme 2) reflects how participants described shifts from routine, transaction-oriented work towards more analytical and advisory roles. Accountants are evolving from “recorders” to “data controllers and analysts.” However, this transition varied across contexts. The auditors emphasised continuous monitoring, corporate accountants highlighted business partnering, and consultants focused on problem-solving and system implementation. These differences reflect variations in the participants’ organisational contexts and their technological maturity.

Participants further described their increasing involvement in system governance. Tasks such as configuring system rules, monitoring outputs, and ensuring data integrity have become part of accounting work. This shift from execution to oversight requires capabilities beyond traditional accounting knowledge. Implementation challenges (Theme 3) validated the need for critical perspectives and raised questions about the promises of seamless integration. Participants reported issues related to data quality, system integration, and resource constraints, particularly in smaller organisations. Differences in access to technology and support structures create uneven adaptation trajectories. These findings suggest that technological transformation is shaped by system capabilities as well as organisational capacity and data governance practices.

## 5.2 *Competency development and adaptation mechanisms*

The findings indicate that effective adaptation (Theme 4) requires a combination of technical, analytical, and cognitive capabilities. Participants consistently identified data analytics, system understanding, and critical thinking as essential competencies beyond traditional accounting knowledge. As one participant noted, while technology literacy does not require advanced programming skills, it does require the ability to understand how systems function and to interpret their outputs in practice.

Organisational adaptation strategies (Theme 5) varied dramatically across contexts, revealing how institutional infrastructure mediates adaptation capacity. Big Four firms implemented comprehensive digital upskilling programmes, cross-functional collaboration with data specialists, and formal training programmes to support capability development. These structured mechanisms enabled the development of systematic capabilities unavailable in resource-constrained settings. In contrast, participants working with smaller organisations highlighted limited resources and reliance on external consultants, with fewer opportunities for systematic knowledge transfer. These differences suggest that adaptation is influenced both by individual effort and organisational conditions.

Individual adaptation behaviours (Theme 6) demonstrate professional agency through self-directed learning, strategic repositioning, and collaborative integration. Continuous learning, openness to technology, and collaboration were frequently mentioned as necessary responses to change. Some participants also described redefining their roles to include more analytical and advisory functions, indicating that adaptation involves skill development and changes in professional orientation.

These findings suggest that adaptation involves changes at the individual and organisational levels. However, adaptation barriers (Theme 7) persisted at multiple levels. Participants identified resource constraints, legacy systems, and limited training as key organisational challenges. At the same time, psychological factors such as resistance to change and differences in receptivity across career stages affect how individuals respond to new technologies. These findings indicate that adaptation is shaped by structural and individual factors. Participants further emphasised the importance of oversight in technology-enabled environments. Tasks such as configuring system rules, interpreting outputs, and ensuring accuracy require active human involvement. As several participants noted, technology does not replace professional judgement and, in fact,

imposes greater responsibility for evaluating system-generated results. This highlights the need for professionals to develop not only their technical capabilities but also their ability to critically assess and govern technological processes.

### 5.3 *Mindset transformation: The mediating mechanism*

Across participants, mindset transformation emerged as a key link between how professionals perceive technology and how they respond in practice. Rather than directly adopting or rejecting new technologies, participants described a shift in how they understood their role, from routine, compliance-oriented work towards more analytical and judgement-based responsibilities.

The identification of the need for a cross-cutting mindset transformation (Theme 8) represents this study's most significant empirical contribution, revealing the psychological framework mediating between technology perception and adaptation action. Participants emphasised that they needed to rethink the value of their expertise in relation to technology. Technology was not viewed as a replacement for professional judgement but as a tool extending their analytical capability. This reframing influenced their willingness to engage with new systems, develop relevant competencies, and reposition themselves within their organisations.

This mindset shift was reflected in several interrelated patterns. Participants described reframing technology as an opportunity and encouraged greater engagement with new tools and more proactive learning. This was accompanied by a shift from narrow technical accounting expertise to broader business understanding, with many redefining their roles in more analytical and advisory terms.

Continuous learning emerged as an integral aspect of professional identity rather than an occasional requirement. Instead of relying on accumulated knowledge, participants emphasised the need to develop new capabilities on an ongoing basis. At the same time, they reaffirmed the importance of uniquely human contributions, particularly in areas requiring judgement, interpretation, and ethical assessment. In this context, professional value is not diminished by technology but redefined in relation to it. Participants also described their emotional responses to this transition. While some, particularly the more experienced practitioners, expressed resistance to change, others reported increased motivation and confidence in developing new capabilities. These accounts suggest that adaptation involves cognitive and emotional processes that shape how professionals respond to technological change.

Overall, the findings across all three professional groups indicate that successful adaptation to technological transformation depends less on acquiring technical skills and more on how professionals interpret and respond to technology. Participants described a shift in how they understood their roles, their relationship with technology, and the sources of their professional value. Those who viewed technology as an enabler of professional judgement demonstrated greater engagement, more proactive learning, and clearer movement toward analytical and advisory roles, whereas those who perceived it as a threat exhibited more limited adaptation.

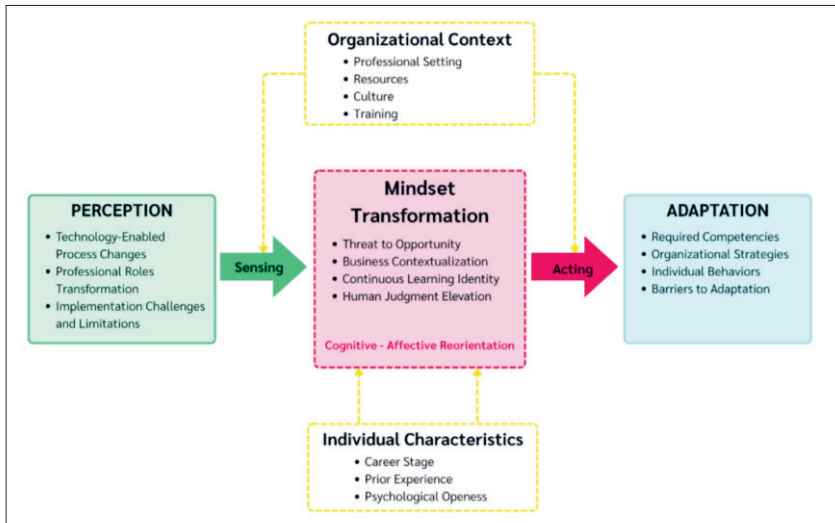
This pattern suggests that mindset transformation is central to how perceptions of technology are translated into action. Rather than directly leading to behavioural change, participants described a process of reinterpreting their roles, reassessing their expertise, and adjusting their engagement with new technologies. This process involves changes in skills and shifts in how professionals understand their work, their responsibilities, and their place within organisations.

These findings further indicate that adaptation is not solely a technical or behavioural response but a broader adjustment in which cognitive and emotional dimensions are integrated. As a result, similar technological conditions may lead to different outcomes depending on how individuals make sense of and incorporate technological change into their professional identity.

#### *5.4 Conceptual model of professional transformation*

The conceptual model in Figure 2 depicts technology-driven professional transformation as a psychologically mediated process. The model demonstrates three interconnected pathways: (1) the primary mediated pathway wherein technology perceptions (RQ1, Themes 1–3) influence adaptation behaviours (RQ2, Themes 4–7) through mindset transformation (Theme 8); (2) the organisational context moderating perception–mindset and mindset–adaptation relationships; and (3) individual characteristics moderating transformation processes. Mindset transformation comprises threat-to-opportunity reframing, business contextualisation, continuous-learning identity, and elevation of human judgement. Functions as the critical mediating mechanism convert environmental perceptions into behavioural responses.

**Figure 2: Conceptual Model of Technology-driven Professional Transformation**



The model operates via three interconnected pathways. The primary pathway flows from technology perceptions (Themes 1–3) to mindset transformation (Theme 8) to adaptation responses (Themes 4–7). Technology-enabled process changes, role redefinitions, and implementation challenges (RQ1) do not, by themselves, produce adaptive behaviours. Rather, these environmental changes undergo psychological processing through mindset transformation, the cognitive-affective reorientation through which professionals reconceptualise their value proposition, reframe the role of technology, and reconstruct their professional identity. Professionals engage in competency development and adaptation behaviours only after this psychological reorientation (RQ2).

This mediated pathway challenges linear technology-adoption models that assume direct perception-behaviour relationships. The model reveals that identical technological deployments produce divergent professional outcomes depending on whether mindset transformation occurs. Professionals successfully navigating transformation actively reframe technology as an opportunity rather than a threat, embrace business contextualisation beyond technical compliance, internalise continuous learning as an identity characteristic, and elevate unique human contributions in the face of automation. Conversely, those resisting transformation maintain their threat interpretations, cling to technical expertise as a primary

source of value, view learning as an episodic necessity, and perceive automation as displacing competency. These divergent mindsets, and not technological capabilities, determine whether professionals adapt or resist.

The model incorporates two moderating pathways that acknowledge contextual influence. The organisational context (professional setting, resource availability, and institutional support) moderates the relationships between technology perceptions and mindset transformation. The Big Four auditors, with access to structured training programmes and cross-functional team infrastructure, more readily develop opportunity-framing mindsets than SME consultants, who confront resource constraints and knowledge deficits (Theme 5). Similarly, the organisational context moderates the relationship between mindset transformation and adaptation behaviours. Even when professionals develop adaptive mindsets, resource limitations, legacy system complexities, and inadequate training infrastructure constrain behavioural translation (Theme 7).

Individual characteristics (career stage, prior technology exposure, and psychological openness) moderated mindset transformation processes. Younger professionals and those with prior positive experience with technology more readily reframed technology as an opportunity, whereas older practitioners and those with limited exposure exhibited greater resistance (R6, R10). These individual differences explain the variation in transformation trajectories even within similar organisational contexts.

The model's theoretical contribution lies in its explication of the mediating function of mindset transformation. The mechanism that existing theories acknowledge implicitly yet fail to theorise explicitly. The TAM/UTAUT models measure perceptions and intentions but treat psychological processes as black boxes. Dynamic capabilities theory examines organisational sensing change, seizing opportunities, and reconfiguring resources, but inadequately addresses individual cognitive-affective processes that enable these capabilities. The professional identity literature analyses occupational transformation but rarely connects it to frameworks for technology adoption. This integrated model positions mindset transformation as a micro-foundational process that links macro-level technological change to individual-level adaptation responses, while acknowledging organisational and individual moderators that shape transformation trajectories.

Empirically, the model explains what prevailing theories struggle to address: why professionals in identical technological environments

exhibit divergent adaptation patterns; why organisational support proves necessary but insufficient for transformation; why technical training alone produces limited behavioural change without accompanying psychological reorientation; and why emotional dimensions such as anxiety, pride, and attachment fundamentally influence adaptation processes. By theorising mindset transformation as a mediating mechanism, the model provides a conceptual infrastructure for understanding technology-driven professional transformation as psychologically mediated, organisationally contextualised, and individually variable.

### *5.5 Theoretical implications*

This study advances the theory across three interrelated domains: dynamic capabilities theory, technology adoption frameworks, and the professional identity literature. First, the findings extend the dynamic capabilities theory (Teece et al., 1997) by revealing the micro-foundational processes through which organisational capabilities emerge from individual adaptation. Prasad and Green (2015a) demonstrate that dynamic AIS capability requires integrating flexible infrastructure, business intelligence systems, and IT-competent professionals and their findings illuminate how such integration occurs. Professionals' sensing activities, recognising the implications of automation, and identifying competency gaps. However, this constitutes the foundation of organisational sensing. Their sensing behaviours, pursuit of training, experimentation with technologies, and collaboration with specialists aggregate into organisational sensing capabilities. Their reconfiguration actions, reconstruction of professional identities, and redefinition of roles enable organisational transformation. This micro-macro linkage addresses Teece's (2007) call to explicate the micro-foundations of dynamic capabilities. Critically, it reveals individual mindset transformation as a prerequisite rather than a mere consequence of organisational dynamic capabilities.

Second, the findings challenge the adequacy of technology adoption models (Davis, 1989; Venkatesh et al., 2003) for explaining professional transformation. As Malatji et al. (2020) argue, TAM/UTAUT models explain only 40 per cent of the variance while neglecting contextual factors and the nature of transformative technologies. Professionals cannot simply "adopt or reject" technologies that are reshaping entire occupational fields; they must reconstruct their identities, develop novel competencies, and negotiate new boundaries. This requires theoretical frameworks

that address identity work, competency transformation, and the psychological adaptation dimensions of the TAM/UTAUT models.

Third, the findings contribute to the professional identity literature by demonstrating how identity work mediates the professional consequences of technological disruption. Abbott's (1988) jurisdictional competition theory and Suddaby et al.'s (2009) professions-as-institutions perspective recognise technology as a trigger for boundary negotiations, yet inadequately theorise the psychological processes through which professionals navigate such negotiations. The findings reveal that boundary work operates through cognitive reframing (technology as opportunity), strategic repositioning (business partner not bookkeeper), selective elevation (judgement not execution), and continuous learning (dynamic capability not static expertise). These identity-work strategies enable professionals to maintain legitimacy despite the commodification of technical skills. Moll and Yigitbasioglu (2019) identified this as a critical yet underexplored area.

Importantly, the findings revealed that identity work is simultaneously cognitive and emotional. Professionals experience anxiety about competency devaluation, pride in elevated positioning, attachment to familiar practices, and enthusiasm for analytical capabilities. This affective dimension is acknowledged in the medical and legal professions' literature but is rare in accounting research, suggesting that technology-profession interactions operate through emotional as well as cognitive processes, warranting greater theoretical attention to professionals' lived experiences of disruption.

## 5.6 *Practical implications*

The findings have several implications for stakeholders involved in accounting's technological transformation. For professional bodies and certification authorities, existing competency frameworks must be recalibrated. Current approaches emphasise technical accounting knowledge but pay limited attention to the capabilities needed in technology-mediated environments. Greater emphasis should be placed on data analytics, systems thinking, and the ability to interpret and evaluate technology-generated outputs. Continuing professional education should also incorporate technology-related competencies alongside ethical and judgement-based dimensions of practice.

For organisations, the findings indicate that technological investment is insufficient without parallel development of human capabilities. Training plays a central role in enabling effective adoption and should extend beyond technical instruction to include

analytical and interpretive skills. In practice, this involves developing the ability to work with contemporary technologies commonly used in accounting environments, such as data analytics tools, automation systems, and cloud-based platforms. Structured and progressive training approaches can support capability development and role transition, particularly by helping professionals engage meaningfully with technology in their work. This is especially important for experienced practitioners, who may require additional support in adapting established work practices to technology-enabled environments.

For educational institutions, a fundamental redesign of accounting curricula is required. Programmes should embed data analytics, programming, and systems thinking throughout the curriculum, integrating algorithmic problem-solving, statistical reasoning, and business contextualisation with traditional technical training. Education must preserve the centrality of professional judgement while positioning technology as a tool that enhances analytical reasoning and ethical decision-making.

## **6. Limitations and future research**

This study has several limitations. First, the qualitative design and purposive sample of 10 senior professionals limit statistical generalisability, and the findings should be interpreted as context specific. Future research could combine the qualitative insights here with larger-scale surveys to assess their broader applicability.

Second, the data were collected during the second wave of COVID-19 in Thailand (March–May 2021), a period of accelerated digital transformation that may have influenced participants' perceptions. As technologies have since evolved, this study focuses on underlying adaptation processes, such as mindset transformation, identity reconstruction, and capability development, rather than specific tools. Future longitudinal research could examine whether these patterns persist in post-pandemic contexts and emerging technological environments.

Third, this study examines perceptions and adaptation strategies rather than objective performance outcomes. Future research might link these findings to measurable indicators, such as audit quality, reporting accuracy, or career progression. Finally, future studies could explore variation across contexts, including different career stages and institutional settings, to better understand the broader applicability of the findings.

## References

- Al-Htaybat, K., & von Alberti-Alhtaybat, L. (2017). Big data and corporate reporting: Impacts and paradoxes. *Accounting, Auditing & Accountability Journal*, 30(4), 850–873. <https://doi.org/10.1108/AAAJ-07-2015-2139>
- Alles, M., & Gray, G. L. (2016). Incorporating big data in audits: Identifying inhibitors and a research agenda to address those inhibitors. *International Journal of Accounting Information Systems*, 22, 44–59. <https://doi.org/10.1016/j.accinf.2016.07.004>
- Alles, M., & Gray, G. L. (2019). Will the medium become the message? A framework for understanding the coming automation of the audit process. *Journal of Information Systems*, 34(2), 137–152. <https://doi.org/10.2308/isys-52633>
- Alles, M. G. (2020). Business process ‘de-engineering’: Establishing the value of the human auditor in an automated audit system. *Journal of Emerging Technologies in Accounting*, 17(1), 43–49. <https://doi.org/10.2308/jeta-52687>
- Amani, F. A., & Fadlalla, A. M. (2017). Data mining applications in accounting: A review of the literature and organizing framework. *International Journal of Accounting Information Systems*, 24, 32–58. <https://doi.org/10.1016/j.accinf.2016.12.004>
- Appelbaum, D., Kogan, A., Vasarhelyi, M., & Yan, Z. (2017). Impact of business analytics and enterprise systems on managerial accounting. *International Journal of Accounting Information Systems*, 25, 29–44. <https://doi.org/10.1016/j.accinf.2017.03.003>
- Asatiani, A., Apte, U., Penttinen, E., & Rönkkö, M. (2019). Impact of accounting process characteristics on accounting outsourcing: Comparison of users and non-users of cloud-based accounting information systems. *International Journal of Accounting Information Systems*, 34, 100419. <https://doi.org/10.1016/j.accinf.2019.06.002>
- Bhimani, A., & Willcocks, L. (2014). Digitisation, ‘big data’ and the transformation of accounting information. *Accounting and Business Research*, 44(4), 469–490. <https://doi.org/10.1080/00014788.2014.910051>
- Bhimani, A. (2020). Digital data and management accounting: Why we need to rethink research methods. *Journal of Management Control*, 31(1), 9–23. <https://doi.org/10.1007/s00187-020-00295-z>

- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Dai, J., & Vasarhelyi, M. A. (2017). Toward blockchain-based accounting and assurance. *Journal of Information Systems*, 31(3), 5–21. <https://doi.org/10.2308/isys-51804>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Earley, C. E. (2015). Data analytics in auditing: Opportunities and challenges. *Business Horizons*, 58(5), 493–500. <https://doi.org/10.1016/j.bushor.2015.05.002>
- Elliot, V. H., Paananen, M., & Staron, M. (2020). Artificial intelligence for decision-makers. *Journal of Emerging Technologies in Accounting*, 17(1), 51–55. <https://doi.org/10.2308/jeta-52666>
- Gangwar, H., Date, H., & Ramaswamy, R. (2015). Understanding determinants of cloud computing adoption using an integrated TAM-TOE model. *Journal of Enterprise Information Management*, 28(1), 107–130. <https://doi.org/10.1108/JEIM-08-2013-0065>
- Gao, L. (2020). Exploring the data processing practices of cloud ERP: A case study. *Journal of Emerging Technologies in Accounting*, 17(1), 63–70. <https://doi.org/10.2308/jeta-52680>
- Gomaa, A. A., Gomaa, M. I., & Stampone, A. (2019). A transaction on the blockchain: An AIS perspective, intro case to explain transactions on the ERP and the role of the internal and external auditor. *Journal of Emerging Technologies in Accounting*, 16(1), 47–64. <https://doi.org/10.2308/jeta-52412>
- Gotthardt, M., Koivulaakso, D., Paksoy, O., Saramo, C., Martikainen, M., & Lehner, O. (2020). Current state and challenges in the implementation of smart robotic process automation in accounting and auditing. *ACRN Journal of Finance and Risk Perspectives*, 9(1), 90–102. <https://doi.org/10.35944/jofrp.2020.9.1.007>
- Huang, F., & Vasarhelyi, M. A. (2019). Applying robotic process automation (RPA) in auditing: A framework. *International Journal of Accounting Information Systems*, 35, 100433. <https://doi.org/10.1016/j.accinf.2019.100433>
- International Federation of Accountants (IFAC). (2019). *Handbook of International Education Pronouncements*. <https://www.ifac.org/>

system/files/publications/files/Handbook-of-International-Education-Standards-2019.pdf

- Issa, H., & Lombardi, D. (2015). Behavioral implications of big data's impact on audit judgment and decision making and future research directions. *Accounting Horizons*, 29(4), 825–838. <https://doi.org/10.2308/ACCH-51023>
- Issa, H., Sun, T., & Vasarhelyi, M. A. (2016). Research ideas for artificial intelligence in auditing: The formalization of audit and workforce supplementation. *Journal of Emerging Technologies in Accounting*, 13(2), 1–20. <https://doi.org/10.2308/jeta-10511>
- Kamanga, R., & Alexandra, P. M. (2019). Facilitated adoption of accounting information systems: A first step to digital transformation in township microenterprises. In *2019 Open Innovations (OI)* (pp. 1–7). IEEE. <https://doi.org/10.1109/OI.2019.8908236>
- Kocsis, D. (2019). A conceptual foundation of design and implementation research in accounting information systems. *International Journal of Accounting Information Systems*, 34, Article 100420. <https://doi.org/10.1016/j.accinf.2019.06.003>
- 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. <https://doi.org/10.2308/jeta-51730>
- Kokina, J., & Blanchette, S. (2019). Early evidence of digital labor in accounting: Innovation with robotic process automation. *International Journal of Accounting Information Systems*, 35, Article 100431. <https://doi.org/10.1016/j.accinf.2019.100431>
- Kroon, N., Alves, M. do C., & Martins, I. (2021). The impacts of emerging technologies on accountants' role and skills: Connecting to open innovation—A systematic literature review. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3), Article 163. <https://doi.org/10.3390/joitmc7030163>
- Malatji, W. R., Van Eck, R., & Zuva, T. (2020). Understanding the usage, modifications, limitations and criticisms of technology acceptance model (TAM). *Advances in Science, Technology and Engineering Systems Journal*, 5(6), 113–117. <https://doi.org/10.25046/aj050612>
- Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power.

- Qualitative Health Research*, 26(13), 1753–1760. <https://doi.org/10.1177/1049732315617444>
- Marshall, B., Curry, M., & Kawalek, P. (2015). Improving IT assessment with IT artifact affordance perception priming. *International Journal of Accounting Information Systems*, 19, 17–28. <https://doi.org/10.1016/j.accinf.2015.11.005>
- Moll, J., & Yigitbasioglu, O. (2019). The role of internet-related technologies in shaping the work of accountants: New directions for accounting research. *The British Accounting Review*, 51(6), Article 100833. <https://doi.org/10.1016/j.bar.2019.04.002>
- Moreno, V., Cavazotte, F., & de Souza Carvalho, W. (2020). Business intelligence and analytics as a driver of dynamic and operational capabilities in times of intense macroeconomic turbulence. *Journal of High Technology Management Research*, 31(1), Article 100389. <https://doi.org/10.1016/j.hitech.2020.100389>
- Moudud-Ul-Huq, S., Asaduzzaman, M., & Biswas, T. (2019). Intention to use cloud accounting system among SMEs in Malaysia: A conceptual framework of a modified unified theory of acceptance and use of technology (UTAUT) model. *Research in World Economy*, 10(2), 74–85. <https://doi.org/10.5430/rwe.v10n2p74>
- Moudud-Ul-Huq, S., Asaduzzaman, M., & Biswas, T. (2020). Role of cloud computing in global accounting information systems. *The Bottom Line*. <https://doi.org/10.1108/BL-01-2020-0010>
- Pan, G., & Seow, P.-S. (2016). Preparing accounting graduates for digital revolution: A critical review of information technology competencies and skills development. *Journal of Education for Business*, 91(3), 166–175. <https://doi.org/10.1080/08832323.2016.1145622>
- Prasad, A., & Green, P. (2015a). Organizational competencies and dynamic accounting information system capability: Impact on AIS processes and firm performance. *Journal of Information Systems*, 29(3), 123–149. <https://doi.org/10.2308/isys-51127>
- Prasad, A., & Green, P. (2015b). Governing cloud computing services: Reconsideration of IT governance structures. *International Journal of Accounting Information Systems*, 19, 45–58. <https://doi.org/10.1016/j.accinf.2015.11.004>
- Peters, M. D., Wieder, B., Sutton, S. G., & Wakefield, J. (2016). Business intelligence systems use in performance measurement

- capabilities: Implications for enhanced competitive advantage. *International Journal of Accounting Information Systems*, 21, 1-17. <https://doi.org/10.1016/j.accinf.2016.03.001>
- Petkov, R. (2020). Artificial intelligence (AI) and the accounting function—A revisit and a new perspective for developing framework. *Journal of Emerging Technologies in Accounting*, 17(1), 99-105. <https://doi.org/10.2308/jeta-52648>
- Qasim, A., & Kharbat, F. F. (2020). Blockchain technology, business data analytics, and artificial intelligence: Use in the accounting profession and ideas for inclusion into the accounting curriculum. *Journal of Emerging Technologies in Accounting*, 17(1), 107-117. <https://doi.org/10.2308/jeta-52649>
- Rikhardsson, P., & Dull, R. (2016). An exploratory study of the adoption, application and impacts of continuous auditing technologies in small businesses. *International Journal of Accounting Information Systems*, 20, 26-37. <https://doi.org/10.1016/j.accinf.2016.01.003>
- Rikhardsson, P., & Yigitbasioglu, O. (2018). Business intelligence & analytics in management accounting research: Status and future focus. *International Journal of Accounting Information Systems*, 29, 37-58. <https://doi.org/10.1016/j.accinf.2018.03.001>
- Romney, M. B., & Steinbart, P. J. (2021). *Accounting Information Systems* (15th ed.). Pearson.
- Rozario, A. M., & Thomas, C. (2019). Reengineering the audit with blockchain and smart contracts. *Journal of Emerging Technologies in Accounting*, 16(1), 21-35. <https://doi.org/10.2308/JETA-52432>
- Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 189-213). Thousand Oaks, CA: Sage.
- Stahl, N. A., & King, J. R. (2020). Expanding approaches for research: Understanding and using trustworthiness in qualitative research. *Journal of Developmental Education*, 44(1), 26-28.
- Stebbins, R. A. (2001). *Exploratory Research in the Social Sciences*. Thousand Oaks, CA: Sage.
- Susanto, A., & Meiryani. (2019). The evolution of accounting information systems. *International Journal of Scientific and Technology Research*, 8(7), 320-325.

- Sutton, S. G., Holt, M., & Arnold, V. (2016). The reports of my death are greatly exaggerated – Artificial intelligence research in accounting. *International Journal of Accounting Information Systems*, 22, 60–73. <https://doi.org/10.1016/j.accinf.2016.07.005>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350. <https://doi.org/10.1002/smj.640>
- Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: Systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*, 18(1), Article 148. <https://doi.org/10.1186/s12874-018-0594-7>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>
- Wang, Y., & Kogan, A. (2018). Designing confidentiality-preserving blockchain-based transaction processing systems. *International Journal of Accounting Information Systems*, 30, 1–18. <https://doi.org/10.1016/j.accinf.2018.06.001>
- Warren, J. D., Moffitt, K. C., & Byrnes, P. (2015). How big data will change accounting. *Accounting Horizons*, 29(2), 397–407. <https://doi.org/10.2308/ACCH-51069>
- Willcocks, L., Lacity, M., & Craig, A. (2017). Robotic process automation: Strategic transformation lever for global business services? *Journal of Information Technology Teaching Cases*, 7(1), 1–12. <https://doi.org/10.1057/s41266-016-0016-9>
- Yasa, N. P., & Devi, S. (2019). The analysis of technology acceptance model (TAM) on the use of accounting information system. In B. Sumardjoko & E. Prihatin (Eds.), *Proceedings of the International*

- Conference on Tourism, Economics, Accounting, Management, and Social Science (TEAMS 2018)* (pp. 284–289). Atlantis Press.
- Yigitbasioglu, O. M. (2015). External auditors' perceptions of cloud computing adoption in Australia. *International Journal of Accounting Information Systems*, 18, 46–62. <https://doi.org/10.1016/j.accinf.2015.09.001>
- Zaini, W. H. A., Hamad, M. K., & Najim, A. S. (2020). Factors affecting the adoption of an accounting information system based on UTAUT2 and its implementation in a tourism corporation. *African Journal of Hospitality, Tourism and Leisure*, 9(1), 1-14.