

The Impact of Digitalization on the Accounting Profession: A Concept Paper

Muhammad Faris Zulkifli., Norhaslinda Daud., Nur Suraya Zulkifli., Rosmawati Elias

Faculty of Accountancy, University Teknologi Mara, Cawangan Selangor, Kampus Puncak Alam,
Selangor, Malaysia

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.909000807>

Received: 24 September 2025; Accepted: 30 September 2025; Published: 31 October 2025

ABSTRACT

Digitalization is reshaping Malaysia's accounting profession by automating routine, rules-based tasks and shifting human effort toward exception handling, analysis and advisory work. This concept paper consolidates recent research and policy developments to explain how and why these changes occur, proposing a Malaysia-specific framework that links technology adoption, process automation, competency shifts, role transformation and organizational outcomes moderated by policy/regulation, education and industry adoption maturity. Using an integrative review approach, the paper clarifies the mechanisms behind rising demand for analytics, AIS/ERP fluency, and communication skills; examines governance requirements (documentation, oversight, human-in-the-loop controls) that convert efficiency into reliable insight; and highlights risks including erosion of early-career learning, AI explainability and bias, and a digital divide affecting SMEs. Practical implications are outlined for universities, firms, professional bodies, policymakers, and individual accountants, emphasizing curriculum realignment, targeted CPD, secure cloud/RPA foundations, and supportive incentives for smaller practices. The analysis concludes that Digitalization does not replace the accountant but it redefines the role and when governance and capabilities advance together, it delivers faster reporting cycles, richer decision support, and stronger public-interest trust.

Keywords: Digitalization, Accounting Profession, Malaysia, Robotic Process Automation, Data Analytics

INTRODUCTION

Digital transformation is often referred to as a complete reorganization of organization systems, involving changes in any aspect of an organization, driven not only by technology but also with the power of technology. Organizations now embrace the transformation process to stay competitive and flourish in the digital era. This concept paper attempts to examine the impacts of digitalization on the accounting profession as one of the digital transformation processes undertaken by organizations. Digital transformation, therefore, is a new meaning given to business models, processes, and strategies to fully exploit the power potential of digital capabilities (George, 2014). Organizations have an opportunity to innovate and shift their market view toward being more agile and flexible.

The accounting profession becomes an important support function for the digital transformation initiatives of organizations. Accounting practices and processes must evolve to adequately capture, analyze, and report financial information in an electronic environment as organizations undergo digitalization. The adoption of digital technologies at the organization-wide level affects the accounting profession, changing the role and responsibility of the accountant and the manner in which financial information is processed and conveyed. The concept paper was based on pertinent sources and research studies related to investigating the impact of digitalization on the accounting profession. The course will explore the transformation of accounting processes, the role of automation, AI, and data analytics in financial reporting, and the skills that are evolving for accountants to succeed in a digital environment.

If one understands the influence of digitalization on the accounting profession, it would certainly help businesses better prepare their accountants in accepting whatever business-wide digital transformation may arise to help in the organization's success. This paper would like to shed light on and afford some recommendations to adjust accountants to digitalization, expand their roles, and make use of technology in providing useful financial reporting and analysis. As digital transformation journeys get launched through enterprises, it becomes essential to recognize the existing territory of digitalization and the avenues it opens to reshape the structures of an organization. By virtue of the digital technologies in hand, businesses get to open new streams of opportunity for growth, efficiency, and innovation, while accountants would be essential in cultivating openness of finances, data-based decision-making, and success for the organization.

Background of Study

In the era of Industry Revolution 4.0 (IR 4.0), many industries rely significantly on technological advancements to improve the effectiveness and efficiency of their operations. Malaysia, a participant in this global transition, is presently experiencing the effects of IR 4.0, which has resulted in significant digitalization across numerous sectors. Therefore, the accounting profession in Malaysia is undergoing radical transformations to adapt to the digital environment (World Economic Forum, 2016). The introduction of IR 4.0 has resulted in a paradigm shift in the way businesses operate in Malaysia. Digitalization, exemplified by the incorporation of digital technologies into various business functions, has disrupted traditional business practices and created new opportunities (Veno, 2020). The accounting profession in Malaysia has not been immune to these changes, as digitalization has caused adjustments in demand for accountants, modifications to the scope of their work, and the need to acquire new skills.

Malaysia's current condition of preparing both current and future accountants for the challenges posed by digitalization makes for an intriguing case study. The accounting profession in Malaysia is actively adapting to the digital environment by adopting modern technologies, acquiring new skills, and acquiring digital competencies. This initiative-taking approach makes Malaysia a fascinating context in which to investigate the impact of digitalization on the accounting profession and comprehend the strategies employed to navigate this transformation.

Accounting businesses, educational institutions, and politicians might acquire significant insights by analyzing the digitalization initiatives and experiences of Malaysian accountants. These insights can be used to develop strategies for managing the accounting profession's digital transformation, educating accountants for the future, and ensuring the profession continues to supply accurate and relevant financial information in the digital era.

Problem Statement

The accounting profession is undergoing a significant transformation due to rapid technological advancements. The emergence of advanced technologies, such as artificial intelligence, machine learning, automation, cloud computing, and big data analytics, has the potential to transform traditional accounting practices. Therefore, it is crucial to assess whether these advancements truly benefit the accounting field or present challenges that could potentially undermine the profession's value.

According to a survey conducted by Robert Half in 2019, accountants are concerned regarding the impact of automation on their profession. The survey revealed that accountants were worried about potential job displacement as daily tasks become more automated, potentially reducing demand for certain traditional accounting professions. Furthermore, the reliance on technology for daily activities may raise concerns about fewer possibilities for accountants to use their creative critical thinking skills and professional judgement (Michael, 2021).

For example, a cloud-based accounting system performs the same functions as traditional bookkeeping, but it does through the use of the Internet. The cloud service provider provides an online server from which any person, business, or organization can retrieve their data via the Internet. Accounting cloud computing is a product of an informational society that is prepared to transition from traditional handling and storing of data

methods to web-based information solutions (Gupta & Gaur, 2017). The adoption of cloud-based accounting systems contributes to increased efficiency and cost savings. These systems automate manual processes, such as data entry and reconciliation, to reduce the time and effort required for routine tasks. In addition, cloud-based solutions eliminate the need for physical storage and maintenance of on-premises servers, thereby reducing accounting firms' IT expenses.

The purpose of this research is to conduct additional research on the potential impact of digitalization on accounting professions. This study is essential to alert future accountants of the importance of adapting to digitalization and acquiring the necessary skills and knowledge to effectively leverage technological advancements in their professional practices. This digitalization no longer can be avoided, as it provides efficiency and effectiveness that are crucial to all industries.

Research Gap

There are several studies that have been conducted related to the impact of digitalization on the accounting profession. Firstly, there was a study on the Impact of Digitalization on the Accounting Profession (Bojan et al., 2023). This article discusses the impact of digitalization on the accounting profession and provides an overview of how technological changes have affected distinct aspects of accounting and corporate reporting, and how these changes will continue to shape the roles and competencies of accountants in the future. Another study conducted on this issue is Digitalization of Accounting Profession: An Opportunity or a Risk for Future Accountants? The main discussion of this article is to assess how future accountants perceive opportunity and risk related to the digitalization of the accounting profession and to look into the impact of gender on this perspective.

LITERATURE REVIEW

Adoption of Digital Accounting Tools

In today's knowledge-driven era, the rapid advancements in information and communication technology (ICT) have made mobilization an invaluable tool. Mobilization encompasses a broad spectrum of technologies, including information, electronics, and telematics, which leverage modern microelectronics, telecommunications, and computing to enhance human life. These technologies aim to improve appliances, techniques, and processes that impact diverse areas of society (Gaviria et al., 2015). Information and Communication Technology (ICT), refers to a broad range of computational tools and systems that process, store, retrieve, and present information. It encompasses digital tools, networks, and services that facilitate data storage, processing, and transmission. ICT has become an integral part of our lives, transforming how we interact, communicate, and access information. In the accounting profession, the use of technologically advanced accounting information systems has revolutionized financial management. These systems enhance efficiency, accuracy, and decision-making by automating tasks and providing real-time access to financial data (Das, 2021). ICT's impact extends to various sectors, empowering individuals, organizations, and societies to connect, collaborate, and innovate in an increasingly interconnected world.

In today's world, computer proficiency has become a crucial aspect of an accountant's technical skill set. All companies rely on computerized accounting systems and utilize management accounting tools offered by information technologies. These systems employ diverse computer functions to accurately record financial information and generate financial statements and reports. Consequently, accounting application software is extensively employed, and employers now expect accounting graduates to possess proficiency in such software. As a result, it is imperative for accountants to acquire expertise in accounting software to meet the expectations of employers and effectively perform their roles in a technologically driven environment.

MYOB, QuickBooks, NetSuite, AccountEdge, and Sage are widely recognized computerized accounting systems that are popular among small and medium-sized enterprises (SMEs) globally (Berikol & Killi, 2021). These software packages are designed to assist SMEs in effectively managing various aspects of their operations, including inventory, customers, vendors, employees, payroll, debtor accounts, and payee accounts.

On the other hand, large enterprises have increasingly adopted comprehensive integrated information systems like SAP and Oracle, which offer support for accounting and other commercial functions. These institutional-level systems cater to the complex needs of larger organizations, providing a wide range of functionalities beyond accounting to facilitate efficient business management. Furthermore, numerous companies employ advanced management accounting tools such as activity-based costing, balanced scorecards, and strategic corporate governance. These tools are categorized under information and communication technologies and are integrated into advanced ICT solutions. Other technologies utilized include data mining, data warehousing, and Extensible Business Reporting Language (XBRL). Additionally, with the growing significance of Big Data, a component of Industry 4.0, finance and accounting professionals are now expected to possess technical and analytical skills to effectively analyze and interpret large volumes of data. This shift emphasizes the need for accountants to adapt to technological advancements and develop expertise in utilizing these tools for financial analysis and decision-making purposes.

Automation of Accounting Processes

Accounting technologies are continuously evolving to become more efficient than previously. The implementation of these accounting technologies allowed for automatization in the accounting process which is revolutionizing the way manual tasks work. For automation to work, numerous apps had to be used, and programming and data input took a lot of time and effort. Although the process is complicated, the reward is very generous thus making it worthy to implement. This process of automization is impossible to avoid because it can minimize the need for human intervention and therefore can reduce the risk associated with humans such as misstatement, omission and error and resulting in higher accounting information quality (Naja et al., 2021). This will result in enhanced efficiency and streamlined processes within the accounting profession.

Robotic Process Automation (RPA) is a big player in transforming the accounting process to automation. RPA is a technological solution that enables end users to set up a software robot to use current applications to conduct transactions, change data, and communicate with other systems. This means that the usage of RPA can make routine transactions automatically processed, reports are generated effortlessly, and calculations are performed with precision. According to a study, RPA can boost efficiency and reduce operational expenses, hence encouraging many businesses to automate the technology used in their finance and accounting services.

The appearance of technologies such as software robots will surely affect the accounting profession. Software robots can be easily trained or programmed to conduct high-volume, repetitive, rules-based tasks by imitating human actions when navigating between various systems, apps, and documents. This will reduce the accountant or auditor from repetitive workload and thus give more time for them to focus on tasks that are required for professional judgment (Naja et al., 2021). This will allow the accountant to make more accurate judgments towards the specific issues and move the accountant from a traditional role to a modern role which involves more interaction with clients.

Changing Skill Requirements

The ability to create value through the development and implementation of modern technologies is dependent on the digital skills of professionals. Digital developments in accounting have led to the widespread adoption of unfamiliar terms, such as artificial intelligence (AI), Big Data, blockchain, cloud computing, software robots, and integrated systems. With the use of new intelligent technologies, accountants will experience changes requiring new responsibilities, skill upgrades, and innovative ways of collaborating and engaging, particularly in human-machine interactions (Azuraidah et al., 2023). They must be able to analyze and interpret data, visualize information effectively, use technology tools, ensure data security, and make informed decisions based on digital communication.

The Impact of Digitalization on the Accounting Profession

Digitalization in the accounting process will impact the accounting profession. This issue is driven by technological advancement, especially AI. These accounting technologies have become a concern among

accountants since their impact can reshape the accounting industry. It will impact on how accountants work on their role and amend the way accountants are educated. Since the accounting industry currently uses a number of automated technologies that were nonexistent ten years ago, the scope of an accountant's employment should therefore increase and become more adaptive to technological improvements and digitalization (Yunita et al, 2022). In addition, the traditional function of the accountant which is information supplier will be replaced by a data scientist with strong systematic and mathematical-statistical competencies (Naja et al, 2021). This will reduce the professional accountants manual labor, which frees them up to focus on more innovative projects and assist management in boosting competitiveness and generating value for the firm.

Besides, digitalization also will affect how future accountants will be trained and educated. Digitalization makes accountants' roles broader, and it also forces accountants to adapt to the latest technologies. This will directly affect the way future accountants are educated and trained to meet new requirements in their profession. A study shows that accounting students must be taught data analytics for analyzing vast amounts of big data, as well as data security and cyber security, to be prepared for changes resulting from the transition to digitalization (Bilal et al, 2020). This will lead to the new main skills that an accountant must dominate which are analytical skills, creativity and openness, communication skill, teamwork skill, and systematic skill (Naja et al, 2021). This knowledge and skill are not taught previously to the accounting students. This will secure the accountant profession from being fully replaced by technologies.

All of this research shows that the accounting profession will not be replaced by technologies due to digitalization, it will just move accountants to the new field where they have never been before and require them to explore new skills and mastering new knowledge. This may be a benefit for them or a threat for the accounting profession depending on how well they reshape their role to meet client's demands that also change due to technological advancement.

METHODOLOGY

This study applies a conceptual approach, wherein an integrative review of authoritative literature is carried out to support the creation of a framework describing how Digitalization reshapes the accounting profession in Malaysia. The literature search was conducted between June and August 2025 and followed a strict formality while employing combinations of keywords such as "Digitalization AND accounting profession," "robotic process automation AND accounting," "artificial intelligence AND audit," "Malaysia AND accounting Digitalization," and "accounting education AND technology," across Scopus, Web of Science, ScienceDirect, and Google Scholar. To guarantee credibility and relevancy, it was general practice for the article to be published between 2015 and 2025, during the dawn of Industry 4.0 and Malaysia's national digital transformation initiative. Only articles published in peer-reviewed journals, professional body reports (such as Malaysian Institute of Accountants), and Malaysian government policy documents were considered acceptable; non-scholarly commentaries, blogs, and polemic grey literature were subsequently rejected. International studies were reviewed to gain some breadth, but priority was given to Malaysian-based studies to maintain contextual validity.

The search resulted in 128 records. The titles and abstracts, along with keywords, were screened for relevancy, so that a smaller set of 64 publications with full-text review was considered. From these, 32 sources were retained for synthesis: 18 peer-reviewed articles, 6 professional reports (that include MIA publications), and 8 policy documents (such as national strategies on Industry 4.0 and 4IR). These works were coded and analyzed thematically. Three cross-cutting domains emerged as follows: (i) digital tools and automation (ERP, RPA, AI, cloud platforms) and their process implications; (ii) evolving competencies and education (analytics, AIS/ERP fluency, basic scripting, cybersecurity, and communication); and (iii) professional roles and governance (shift towards analysis and advisory, ethical guardrails, regulatory guidance). Thereafter, the insights across the three domains were synthesized into a Malaysia-specific conceptual chain linking technology adoption to process automation, competency shifts, and role evolution, with explicit recognition of the moderating effects of policy/regulation, education, and industry adoption maturity. This method, therefore, stresses transparency about source choice and analytic logic worthy of.

Conceptual Framework

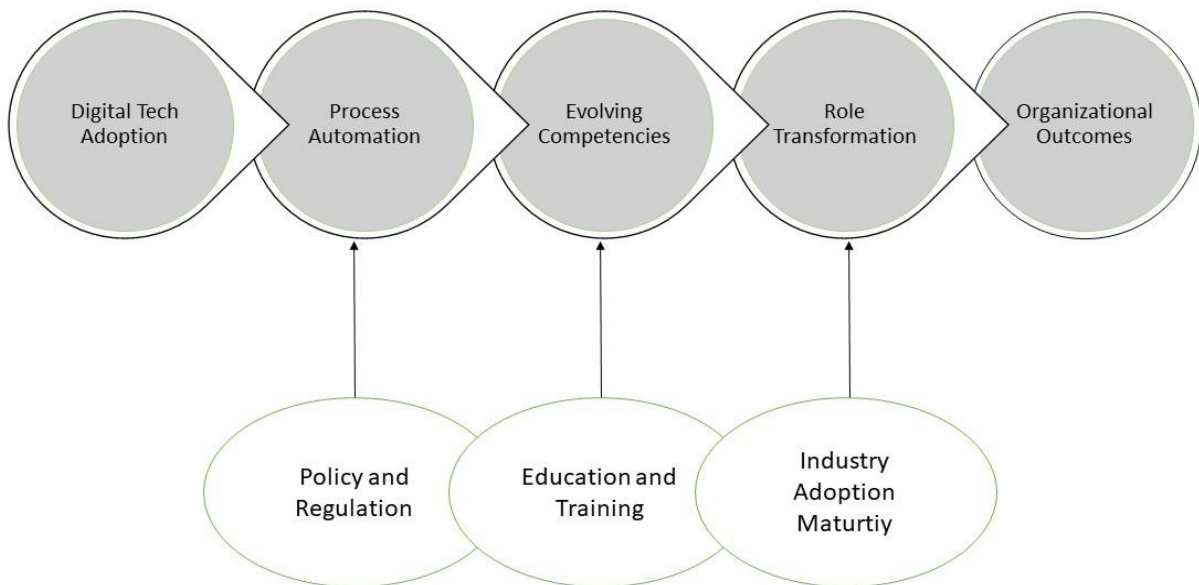


Figure 1: Digitalization in Accounting Framework

The conceptual framework is depicted in Figure 1 to show the digitization effects changing the accounting field. It displays the effects of digitalization considered most significant. The framework is a five-step causal chain on the effects of digitalization: (1) digital technology adoption, (2) process automation, (3) developing competencies, (4) transformation in the professional roles, and (5) organizational outcomes, with three moderating contextual conditions: policy and regulation, education and training, and industry adoption maturity. Digitalization requires accountants to learn to manipulate technology for the purpose of learning how to analyze data, for it is one of the major changes taking place in their field. The framework gives a complete picture of how digitalization was changing the work and responsibilities of the accountants in this digital era.

First is digital technology adoption, which means the buy-in of technologies such as robotic process automation (RPA), enterprise resource planning (ERP) systems, artificial intelligence (AI), and cloud platforms. These technologies are regarded as enablers of change in that they change how data are captured, processed, and stored (Fernandez & Aman, 2018; Kokina & Blanchette, 2019).

Second, implementation automates processes where repetitive, rule-based tasks that involve reconciling, matching invoices, and generating reports are handed over to machines. This diminishes the scope of errors and improves efficiency. Simultaneously, it frees up human accountants to spend time on interpretation and oversight functions (Fernandez & Aman, 2018).

Third, as automation scales, new competencies are called for. New-age accounting still requires digital fluency in analytics, systems integration, cybersecurity, and the basics of programming; in addition, age-old skills like ethical judgment and communications remain under discussion (Taib et al., 2023). Without these skills, the accounting profession will encounter new technologies with under utilization or irrelevance from an advisory standpoint.

Fourth, competence drives role change. Accountants are transformed from principally transaction processors to data interpreters, strategic advisors, and ethical stewards of digital systems. This transformation constitutes augmentation, whereby technology is used to enhance human capability rather than replace it-if the right safeguards are in place (MIA, 2023).

Fifth, the ultimate outcome in organizational performance and value. Firms can have faster reporting cycles, stronger compliance, deeper insights, and higher trust in financial information, provided technology is embedded responsibly, and professionals are adequately prepared (World Economic Forum, 2016).

The strength and direction of these causal links, while some have stronger and certain directions, are moderated by three variables: Policy and regulation (e.g., Industry4WRD, National 4IR Policy, the ethical guidelines of MIA) give strategic direction and put in place governance mechanisms to ensure that the adoption is safe and in the interest of the general public (MITI, 2018; Prime Minister's Department; 2021; MIA, 2023). Education and training at the university level and for continuing professional development (CPD) level constitute the speed of competence development and diffusion (Taib et al., 2023). Also, the industry adoption maturity, which takes into consideration the size of the firm, the resources available, and the culture that is open to the acceptance of change, determines how frequently the profession actually undergoes these changes, the SMEs frequently lagging behind larger corporations in the digital uptake (MIA, 2017).

The discussed framework paves the way for a mechanistic explanation of Digitalization, much beyond its merely descriptive accounts on how and why technologies reshape accounting work in Malaysia. The framework also intends to provide a basis for propositions that can be subsequently tested through empirical research, for instance, whether higher levels of automation correspond to greater time expended on advisory work and the influence moderators have over this relationship.

ANALYSIS AND DISCUSSION

The paper suggests that robotic process automation (RPA) interferes with cases of accountants' time per deterministic rules-based high-volume tasks (such as invoice capture, three-way matching, bank reconciliations, scheduled reports). As these "prep and posting" tasks are performed by bots, more effort goes into exception handling, control oversight, and interpretation. Mechanically, RPA reduces manual keystrokes and timing variability, stabilizes ledger inputs, and produces auditable run logs; this freed-up capacity has now been reallocated to analytical review and communication with stakeholders (Fernandez & Aman, 2018; Kokina & Blanchette, 2019). This mechanistic explanation also explains the increasing demand for data skill: with the collapse of preparation time, organizations expect more insight per close-richer variance analysis, scenario modeling, and predictive perspectives that require data wrangling, statistical reasoning, and incisive narrative explanation (Kroon et al., 2021).

At the team level, automation is increasing the returns to analytics as the standardized, bot-generated data feeds make dashboards and anomaly detection more meaningful. Accountants who can query and shape data (some SQL/Python fundamentals), know AIS/ERP data structures, and have some idea of what they want to visualize to see trends can now query exceptions at scale instead of looking at single transactions (Kokina & Blanchette, 2019). Malaysian evidence points to an emerging exposure to analytics and information-systems contents coupled with uneven competence; this, however, brings forth concerns for targeted upskilling and CPD for the profession to really benefit from automation (Taib et al., 2023). While interest in cloud and analytics is high, adoption has been slow and patchy across firm sizes, reinforcing skills-and-adoption bottlenecks (Malaysian Institute of Accountants [MIA], 2023).

Governance plays a key role. Automation redefines sufficiency of audit evidence and documentation: bot logic, parameters, exception queues, run logs, data lineage, and records of changes become part of the audit trail. Controllers and auditors must confirm that automated procedures fulfill the objective of the relevant standard, such as ensuring that the risk of misstatement is addressed by an automated reconciliation. They must also guard against "false assurance" given by unvalidated tools (Kokina & Blanchette, 2019). In Malaysia, ethical guidance stresses competence, confidentiality, and proportionate governance as the criteria using cloud/AI/RPA, turning the ethical principles into concrete requirements on tool selection, access control, oversight, and documentation (MIA, 2023).

There are major setbacks to figure out deliberately. Experience-ladder issues crop up when no entry-level reconciliations and tick-and-tie tasks are available. Thus, junior professionals could be deprived of opportunities to build their professional skepticism, capacity to recognize error patterns, and control thinking. Without the proper redesign, automation might wind up creating seniors capable of using a tool but who lack fundamental judgment. Some very effective ways include rotations through operations/IT/data teams, simulated cases mirroring manual thinking, structured reviews for exceptions where juniors are made to defend their hypotheses, and explicit coaching for analytic procedures (Kroon et al., 2021; Zainuddin et al., 2022).

Besides privacy issues, ethical considerations arise. Opaque models spawn an explainability gap; biased training data corrupt data estimates; and "automation bias" may set away skepticism, causing staff to accept outputs without a second thought. Safeguards such as documented validation on local data, human-in-the-loop threshold levels, protocols for challenging anomalies, and auditable overrides act to translate professional expectations into everyday application (Kroon et al., 2021; MIA, 2023). A visible "digital divide" remains. Large firms and shared-services centres garner early gains from cloud and RPA, whereas many SMEs face barriers in terms of costs, skills, cybersecurity, and change management, thereby setting up a two-speed profession. What becomes risky here is a structural divergence, with one cohort delivering analytics-led partnering and the other constrained to manual workflows. National and professional programs come into play to shrink this gap, but targeted supports (shared platforms, vendor-neutral training, and incentives) are essential for it to diffuse into the wider professional fold beyond the early adopters (MIA, 2023). Meanwhile, consortium buying, process standardization, and cloud solutions embedded with controls are indeed sound means for smaller establishments to hit RPA thresholds at an earlier stage.

Besides, all of the mechanisms proposed here, patterns in digital technology adoption, process automation, competency shifts, role transformation, and organisational outcomes are found to be aligned with Malaysian evidence. The "why" operates on three fronts: (1) automation reduces preparation time while ensuring a quality standard for data, thus creating the demand for interpretation and management foresight; (2) governance decides when efficiency should be converted into reliable insight; and (3) moderators-policy/ethics, education, and maturity of industry adoption-serve as conditions or parameters of how fast and how safely the chain operates (Fernandez & Aman, 2018; Kokina & Blanchette, 2019; MIA, 2023; Taib et al., 2023). Hereby, these mechanisms indicate testable implications for Malaysia: higher loading on automation would impinge on the share of finance hours spent in preparation/posting, although the share spent on analysis/advisory would increase, with stronger effects present wherever there are domains of analytics competence and ethical governance.

RECOMMENDATIONS

In Malaysia, digitalization will create lasting value for the accounting profession only when education, firms, regulators, and individuals move in harmony. At universities and professional bodies, the programmes need to build core digital competencies of their choice (analytics, AIS/ERP fluency, basic scripting/cybersecurity, and data storytelling) right from the scores-based assessments and direct work on the tools rather than relegating those competencies to electives. There will be a shift away from being about "tool use" toward problem-solving and communication based on project cases, such as RPA exceptions, ERP implementations, AI-flagged anomalies. For working professionals already in the field, CPD credits that are easily accessible must be provided through webinars and micro-credentials, which should be based on continuous evaluation of outcomes.

Those firms, big and small, should invest not only in RPA/AI/cloud but also in the supporting functioning of entities: secure infrastructure, data standards, and clear ownership of an automated process. Building that digital culture counts: nominate "digital champions," celebrate internal wins in automation, and rotate staff to work through IT or data teams so the accountants basically interrogate exceptions and explain insights back to the client. Training must extend to button-pushing and interpretation into advisory scenarios on how to validate a model, challenge a found pattern, and translate analysis into decision-making. Even amid scaling automation, keep the human edge: relationship management, judgement, and the provision of tailored advice (right at the core). Professional bodies and policymakers can push things into safe adoption by iterated tech-ethics guidance (explainability, privacy, bias control), by releasing practical casebooks, and expanding the mentorship and knowledge-sharing circles around SSMEs. Direct incentives (grants, tax offsets, shared platforms) allow smaller practices to grow to a level at which automation pays, while accreditation and licensing push the shock troops into minimum digital competencies. Education regulators should align programme standards with these expectations so all institutions lift together. Ongoing monitoring skills, employment patterns, quality indicators should feed back into policy and CPD updates.

At an individual level, accountants may nurture in themselves the mindset of lifelong learners: the acquisition of micro-credentials in analytics or IT, openness to evolving workflows, cooperation with IT or data teams,

and ethical scepticism in dealing with outputs from automated processes, with augmentation, or with technology enhancing judgment and creating client value, rather than mere substitution. Future research priorities would be: (1) to empirically test the suggested chain-adoption, automation, skills, roles, and outcomes-based on Malaysian survey or case data; (2) longitudinal studies on how curricula or CPD translate to workplace competence and how that, in turn, can translate to faster and better closes; (3) profound case studies on RPA or AI rollouts regarding costs, controls, audit quality, and client impact; (4) focus evaluation studies of various technologies such as AI in auditing, blockchain use cases, cloud for SMEs to isolate mechanisms and risks; (5) digital divide analyses to understand which incentives or shared services would allow SMEs to catch up; (6) engagement with ethics and governance outcomes-explainability, bias management, documentation sufficiency; (7) evaluation of policy effectiveness-linked to best practice guidelines, awards, and grants with measurable impact on adoption, insight quality and public trust.

CONCLUSION

Digitalization in Malaysia is bringing in the transformation with a clear link with the adopting of new technologies, routine tasks are automated; and so analytics, systems fluency, and communication gain prominence as skills, which place accountancy professions in more interpretative, advisory roles; and faster cycle time, better insight, and stronger control are the gains for organizations. But such gains are never for free. They are dependent on governance (clear ownership, documentation, human-in-the loop controls), capability building (curricula and CPD that emphasize analytics and AIS/ERP fluency), and quick adoption by the industry (especially with targeted support for SMEs to catch up). Some of the risks to be managed are erosion of early-career experiential learning, explainability, and bias in AI, as well as expansion of the digital divide. Practical mitigations, such as rotations with IT/data teams, simulation and exception-review training, model validation and override protocols, and shared platforms/incentives for smaller firms, convert efficiency into reliable and trusted insight. Thus, Digitalization does not replace the accountant; it redefines the role. Aligned policy, education, and firm practice, could translate automation's speed and accuracy into durable strategic value and public-interest trust.

ACKNOWLEDGEMENT

The authors are appreciative to the Faculty of Accountancy at Universiti Teknologi MARA, Malaysia, for providing resources and support for this study.

REFERENCES

1. Awang, Y., Mohamed Shuhidan, S., Zainal Zakaria, Z. N., Sulistyowati, S., Ifada, L. M., & Taib, A. (2022). Digitalization of the accounting profession: An opportunity or a risk for future accountants? *Proceedings*, 82(1), 93. <https://doi.org/10.3390/proceedings821093>
2. Berikol, B. Z., & Killi, M. (2020). The effects of digital transformation process on accounting profession and accounting education. In *Ethics and Sustainability in Accounting and Finance*, Volume II (pp. 219–231). Springer.
3. Fernandez, D., & Aman, A. (2018). Impacts of robotic process automation on global accounting services. *Asian Journal of Accounting and Governance*, 9, 123–131. <https://doi.org/10.17576/AJAG-2018-09-11>
4. Gaviria, D., Arango, J., & Valencia-Arias, A. (2015). Reflections about the use of information and communication technologies in accounting education. *Procedia – Social and Behavioral Sciences*, 176, 992–997. <https://doi.org/10.1016/j.sbspro.2015.01.569>
5. Gupta, K., & Gaur, M. P. (2017). Impacts of cloud computing on accounting: Aids, challenges and its future growth. *EPRA International Journal of Economic and Business Review*, 5(12), 141–147.
6. Kokina, J., & Blanchette, S. (2019). Early evidence of digital labor in accounting: Innovation with robotic process automation. *International Journal of Accounting Information Systems*, 35, 100431. <https://doi.org/10.1016/j.accinf.2019.100431>
7. Kroon, N., do Céu Alves, M., & 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), 163.

<https://doi.org/10.3390/joitmc7030163>

8. Malaysian Institute of Accountants. (2017). MIA digital technology blueprint: Preparing the Malaysian accountancy profession for the digital world. Kuala Lumpur: MIA.
9. Malaysian Institute of Accountants. (2023). Ethical guidelines on technology usage for public practitioners. Kuala Lumpur: MIA.
10. Ministry of International Trade and Industry. (2018). Industry4WRD: National policy on Industry 4.0. Putrajaya: MITI.
11. Prime Minister's Department (Economic Planning Unit). (2021). National Fourth Industrial Revolution (4IR) Policy. Putrajaya: Government of Malaysia.
12. Robert Half. (2019). Jobs and AI anxiety report. Robert Half International.
13. Taib, A., Awang, Y., Mohamed Shuhidan, S., Zainal Zakaria, Z. N., Sulistyowati, S., & Ifada, L. M. (2023). Digitalization of the accounting profession: An assessment of digital competencies in a Malaysian comprehensive university. *Asian Journal of University Education*, 19(2), 365–380. <https://doi.org/10.24191/ajue.v19i2.22229>
14. Westerman, G. (2014). The nine elements of digital transformation. MIT Management Review.
15. World Economic Forum. (2016). The future of jobs: Employment, skills and workforce strategy for the Fourth Industrial Revolution. Geneva: WEF.
16. Zainuddin, Z. N., Ahmad, M., Abdul Latif, N. E., & Mohamed Yusof, F. (2022). Digital transformation of accounting profession: Post-Covid-19 era. *Environment-Behaviour Proceedings Journal*, 7(18), 131–139. <https://doi.org/10.21834/ebpj.v7iSI8.3700>