CHALLENGES AND CRITICALLY SUCCESSFUL FACTORS IN ADOPTING BLOCKCHAIN TECHNOLOGY FOR ACCOUNTING PRACTICES

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Abstract. The study on Blockchain Technology in accounting practices is in a developing stage and can benefit a diverse set of individuals or practitioners. However, Blockchain Technology's study on accounting is relatively less than Blockchain Technology's study on supply chain management. In addition, most of the studies are conceptual and conducted in developed countries. Thus, challenges and critically successful factors of the adoption of Blockchain Technology in accounting practices from the generalised individuals' point of view of a developing country that is chosen for this study-Malaysia, need to be better addressed to understand the actual difficulties and opportunities that are associated with the adoption of blockchain-based accounting and provide useful insights for the public. The objectives of this study are: (1) to study the relationship between the challenges of the cost of Blockchain Technology, the risks of Blockchain Technology, government and tax accounting on the adoption of Blockchain Technology in accounting practices in Malaysia; and (2) to study the relationship between the critically successful factors namely accounting information quality, trust, knowledge, skills, technology readiness, and computer self-efficacy on the adoption of Blockchain Technology in accounting practices in Malaysia.
Keywords: *blockchain technology, accounting, challenges, critically successful factors, adoption*

Introduction

According to Afifa et al. (2022), Blockchain Technology is the technology that laid the foundation for the current Bitcoin cryptocurrency. It is a technology that can store and transmit information by blocks that are linked together and form a chain. The chain will be expanded over time as more information is recorded, and more blocks will be formed. Each block comprises information that was recorded at that point in time and associated with the previous blocks. Transaction details and timecode are recorded in the block to prevent data manipulation. Blockchain Technology will change the centralized database to a distributed ledger that runs on various network nodes (Afifa et al., 2022). The technology can create reliable and verified records after authentication through consensus algorithms, third parties are not needed. The immutability of Blockchain Technology ensures the blockchain ledgers and the business transactions remain unchanged and non-alterable (Vardia and Singh, 2022).

Background

It is believed that, with Blockchain Technology, double-entry accounting will be switched to triple-entry accounting. In 1986, Ijiri invented triple-entry accounting. However, at that time, most scholars criticised triple-entry accounting because it was not practical and difficult to implement. In 2005, Grigg raised the same topic again, triple-entry accounting became more practical because of the excitement of today's

bitcoin market. It is mandatory to have a third party for recording business transactions to eliminate common errors in accounting and financial fraud (Afifa et al., 2022). With Blockchain Technology in accounting practices, Blockchain Technology will then be the third party. It can cryptographically secure, record, and store business transactions at the same time (Afifa et al., 2022). This can ensure that the accounting information is reliable. When Blockchain Technology is applied in accounting practices, each party will have a unique digital signature and this digital signature will be signed on the receipts (Afifa et al., 2022). All the transaction entries will be recorded and shared with all the parties in the network which then will be cryptographically sealed by the Blockchain Technology (third-party or third entry). Lastly, receipts with electronic signatures of the parties that are in the network will be issued (Afifa et al., 2022). This receipt is the proof of the transactions through Blockchain Technology (third-party or third entry). Moreover, smart contracts of Blockchain Technology are self-executing contracts. All the predefined terms and conditions are written into the codes. The codes are stored and fulfilled on a blockchain. Smart contracts can automate business transactions and accounting routines like invoice processing, payments, and revenue recognition. Smart contracts can also significantly reduce errors and increase the efficiency of the users (Anis, 2023).

Research problem and objectives

According to Anis (2023), the study on Blockchain Technology in accounting practices is in a nascent and developing stage. Blockchain Technology study can benefit a diverse set of individuals or practitioners. However, Blockchain Technology study on accounting is relatively less compared to Blockchain Technology study on supply chain management. In addition, most of the studies are conceptual and conducted in developed countries (Malinga, 2020). As a result, generalised individuals' perspective on Blockchain Technology in accounting practices needs to be better addressed (Anis, 2023). Thus, there is a need to study: (1) what are the challenges of the adoption of Blockchain Technology in accounting practices; and (2) what are the critically successful factors of the adoption of Blockchain Technology in accounting practices, from the generalised individuals' point of view of a developing country to understand the actual difficulties and opportunities that are associated with the adoption of blockchain-based accounting in the country and provide useful insights for the related persons or other professional bodies.

The framework of this study is shown in *Figure 1*. The objectives of this study are firstly to study the relationship between the challenges of the cost of Blockchain Technology, the risks of Blockchain Technology, and government and tax accounting on the adoption of Blockchain Technology in accounting practices in Malaysia and secondly to study the relationship between the critically successful factors of accounting information quality, trust, knowledge, skills, technology readiness, and computer self-efficacy on the adoption of Blockchain Technology in accounting practices in Malaysia. Innovation Diffusion Theory will be applied in this study. This study has several sections such as literature review and hypothesis development, material and methods, results and discussion, and lastly, conclusion. This study addresses limitations from the previous study in the same or similar study fields and is explained in the literature review and hypothesis development section.

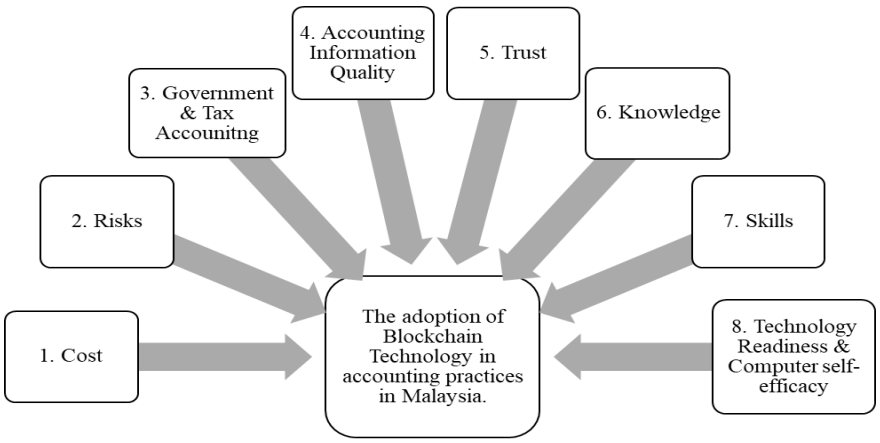

***Figure 1**. The framework.*

Literature review and hypothesis development

Research gap

Most of the studies have discussed the positive effects or benefits of Blockchain Technology in accounting practices, but there are fewer empirical studies on how innovations or ideas are adopted and what determines the individual's technology adoption behaviour. The studies on the adoption of Blockchain Technology are starting to increase recently, but most of them are in the field of supply chain management (Afifa et al., 2022; Agi and Jha., 2022; Wong et al., 2020). Therefore, the study of the adoption of Blockchain Technology in accounting practices has been decided to be conducted in this study to bridge the theoretics and practicability. The Innovation Diffusion Theory is decided to be applied in this study to examine the individuals' adoption behaviour because it can evaluate the adoption of Blockchain Technology in accounting practices, from the generalised individuals' point of view (Kim and Crowston, 2011).

Furthermore, this study also addresses one of the limitations of the study of Afifa et al. (2022) as well as Wang and Kogan (2018), which mentions that their study only focused on the benefits and positive effects of Blockchain Technology for accounting. In this study, challenges of the adoption of Blockchain Technology are also included to explain additional issues along with advantages. Moreover, most of the prior studies are from Western or developed countries and in the form of qualitative that show deeper insights into Blockchain Technology in accounting practices (Anis, 2023; Han et al., 2023; Malinga, 2020). In this study, a developing country-Malaysia is chosen. This is to study the challenges and critically successful factors of the adoption of Blockchain Technology in accounting practices in Malaysia. Quantitative research is conducted to examine the overall adoption behaviour of Blockchain Technology in accounting practices in Malaysia under the existing challenges and other relevant factors. Thus, the

literature review will be synthesized, and the hypotheses will be formed to bridge these gaps.

Dependent variable: The adoption of blockchain technology in accounting practices in Malaysia

According to Ntanos et al. (2020), it is proven that Blockchain Technology is well applicable in a wide variety of activities, such as accounting and auditing, supply chain management, and other business processes. Some of the studies focused on the adoption of Blockchain Technology in the accounting or auditing profession because it is considered an interesting application. The adoption of Blockchain Technology helps to improve accounting practices and eliminates redundant activities. Based on the study of Schmitz and Leoni (2019), the adoption of Blockchain Technology from the point of view of accounting enabled different functions such as a continuous record of business transactions (accounting journal entries and audits), paradigmatic shift in accounting and auditing as well as the application of the smart contract. After the adoption of Blockchain Technology in accounting practices, the maintenance costs and the periodic inspection of the companies can be reduced (Afifa et al., 2022). Moreover, Blockchain Technology is capable of transforming accounting practices because it can record business transactions on a blockchain and then aggregate them into financial statements (Ntanos et al., 2020). It ensures the records are true and accurate and this can affect the old validation process in accounting practices (Afifa et al., 2022). According to Tan and Low (2019), the adoption of Blockchain Technology can lower error rates and avoid accounting fraud if it is implemented in the current accounting practices. However, this prediction can only be confirmed if it is empirically tested in the current accounting practices. As stated by the International Federation of Accountants (IFAC), Blockchain automation is a seismic shift in the accounting field after six hundred years of two-ledger bookkeeping accounting practices. Therefore, training in new technologies and accounting education is required to improve the skills of individuals who are studying or working in accounting fields full-time or part-time (Ntanos et al., 2020). In this study, the adoption of Blockchain Technology in accounting practices in Malaysia will be studied together with the independent variables stated in the following sections.

Theory: Innovation of diffusion theory

In this study, the innovation of diffusion theory will be applied to demonstrate the independent variables in the following sections. The innovation of diffusion theory by Rogers is applied to explain how innovations or ideas are adopted (Scott et al., 2008). This theory proposes that an individual's technology adoption behaviour (Kim and Crowston, 2011) is determined by five (5) attributes: (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, and (5) observability. Relative advantage means the degree to which an innovation is perceived as being better than the idea it supersedes (Scott et al., 2008); Compatibility implies the degree to which innovation is regarded as being consistent with the potential individuals' existing values, prior experiences, and needs (Lou and Li, 2017); Complexity means the degree to which an innovation is perceived as difficult to understand and use; Trialability implies the degree to which an innovation may be experimented with on a limited basis; Observability means the degree to which the results of an innovation are visible to the adopters (Scott et al., 2008).

Independant variable-challenges: Cost of blockchain technology

According to the study of Demirkan et al. (2020) as well as Sadhya and Sadhya (2018), one of the challenges of the adoption of Blockchain Technology in accounting practices is the cost. The cost of the adoption of Blockchain Technology is substantially high because this technology is complex and novel currently. The adoption of this technology requires the potential users to develop a patented solution or solicit resources of Blockchain Technology from the professional service providers which are very scarce. As mentioned in the previous section, this is because the implementation of this technology in accounting practices is in the infancy stage and there are fewer skilled professionals in this domain. Moreover, suppose the potential users would like to adopt Blockchain Technology in accounting practices. In that case, more resourceful hardware or infrastructure is required due to the characteristics of the technology that are stated in the Introduction and its intensive computation that results in more records needing to be stored. Hence, Blockchain-based accounting is currently beyond the limits of the financial and workforce reserves of most small and medium-sized businesses. It may be viable and adopted by some of the individuals from privileged or larger-scale businesses (Sadhya and Sadhya, 2018).

Based on the study of Mahdi and Baqer (2023), most individuals will adopt modern technology in accounting practices if the technology meets their needs such as technology that is advanced, high-quality, and adoption of the technology is at a low-cost or reasonable cost (Fuller and Markelevich, 2020). Although the adoption of Blockchain Technology in accounting practices can reduce the cost of preparing the financial or accounting transactions and auditing costs in the long run, the cost of adoption is initially high. The high costs of adoption and integration are one of the challenges. The future or expected savings after the adoption of Blockchain Technology in accounting practices are very encouraging, but the initial cost cannot be overlooked. The cost of replacing the current system-older legacy system with Blockchain Technology is high and disposal of the current accounting system may cause losses; The adopters also have to consider the price of the technology, in addition to some costs, such as monitoring and maintaining cost, training fees (to familiarise with the technology) (Mahdi and Baqer, 2023) and data conversion cost, which may increase the base price of the technology. Therefore, it is unclear whether potential users would be willing to shoulder the substantial costs (Fuller and Markelevich, 2020). Since the cost of the adoption of Blockchain Technology in accounting practices is higher than the current accounting system, hence, this is not a relative advantage. According to the innovation diffusion theory, it indicates that if an individual or adopter finds that there is no relative advantage in using the innovation, the innovation will not be adopted. Thus, the researchers hypothesise:

H1: Challenges-Cost of Blockchain Technology is negatively related to the adoption of Blockchain Technology in accounting practices in Malaysia.

Independent variabLe-challenges: Risks of blockchain technology

According to Mahdi and Baqer (2023), one of the challenges of the adoption of Blockchain Technology in accounting practices is the risks. Blockchain Technology may have the problem of control or face a 51% attack. If the users need to modify the

data or information that is recorded in the Blockchain Technology, approval of the majority of users in the chain is required. This is equivalent to the approval of 51% of the users in the chain. This feature is one of the attributes of Blockchain Technology because it benefits the recorded information or data and prevents them from being tampered with or manipulated. However, this feature of Blockchain Technology can cause risks in accounting practices. The technology is vulnerable to the 51% attack because it happens when a group of users from one node in the chain controls the computerised resources and dominates the validation and approval process of the accounting transactions. In addition, the characteristics of Blockchain Technology such as anonymity of users, privacy, and decentralisation sometimes can cause illegal activities in accounting practices such as money laundering operations by using virtual currencies.

Some users may use these characteristics as the "chances" for them to perform illegal activities. Although the security solutions of Blockchain Technology can benefit accounting practices because of the technology's strong encryption algorithms, this may cause some electronic security issues such as the sharing of personal data and dissemination of confidential accounting information (Mahdi and Baqer, 2023). According to Vardia and Singh (2022), Blockchain-based accounting involves risks such as data loss, the transaction or traders' details being disclosed due to decentralisation (privacy may not be protected), frauds and errors, technical glitches of cloud storage of Blockchain Technology in the process of the submission of accounting transactions or records. The overloaded information that is stored in the Blockchain may have the risks of the disappearance of the financial statement and auditing or accounting records (Abdennadher et al., 2022). Data safety may be the concern of the users of Blockchain Technology (Afifa et al., 2022). Based on the study of Seshadrinathan and Chandra (2021) as well as Sadhya and Sadhya (2018), concerns about adopting Blockchain Technology in accounting practices are raised due to the novelty of the technology and risks of the technology would be the concerns to the users since there is a lack of professionals in this domain. According to the innovation diffusion theory, it indicates that if an individual or adopter finds that there is no relative advantage in using the innovation, the innovation will not be adopted. Thus, the researchers hypothesise:

H2: Challenges-Risks of blockchain technology is negatively related to the adoption of blockchain technology in accounting practices in Malaysia.

Independent variable-challenges: Government & tax accounting

Based on the study of Mahdi and Baqer (2023), government and tax accounting are the challenges of the adoption of Blockchain Technology in accounting practices. There is no tax legislation or tax treatment that includes the rules and regulations subject to the application of blockchain to tax accounting practices. The specific treatments for the use of smart contracts of Blockchain Technology are also not included in the tax legislation. Thus, the biggest challenge is how to report taxes when Blockchain Technology is adopted in accounting practices and the development of tax systems to accommodate the adoption of Blockchain accounting. In addition, there is a lack of global agreement on the adoption of Blockchain Technology in accounting practices. There is no formulation of a theoretical framework or boundaries from the government (domestically or globally) for individuals to take note of in terms of the adoption of Blockchain accounting. Therefore, it is recommended to re-evaluate the rules and

regulations and formulate a globally agreed or organised framework for the adoption of the technology in accounting practices. Based on the study of Prux et al. (2021), Blockchain Technology is considered the new Internet of Business because of its decentralisation which can affect the laws and the ways of operating governments. Moreover, government bodies will also need new skills to adapt to the changing environment if the adoption of technology in accounting practices is carried out. There is a pressing need for legal frameworks by the government to govern Blockchain Technology in accounting practices and re-evaluate taxation policies. These changes take time and trials are needed to confirm the implementation (Garanina et al., 2022).

The innovation diffusion theory suggests that innovations that are triable before being completely implemented are more likely to be adopted and that innovation is more likely to be embraced if it produces observable benefits. The adoption of Blockchain Technology in accounting practices that shows more trialability or observability in the future can encourage the government to consider the re-evaluation of regulatory requirements or tax regulations (Scott et al., 2008). The study of Seshadrinathan and Chandra (2021) which applied the Technology-Organisation-Environment Framework also mentions that the rules and regulations of government can encourage the propagation and adoption of an innovation. Government and tax accounting is currently challenged by the adoption of Blockchain Technology in accounting practices because there is low trialability and observability of this technology in the accounting fields (Mahdi and Baqer, 2023). Since the adoption of Blockchain Technology in accounting practices is still in the infancy or experimental stage, some difficulties including governmental regulations may hinder the individuals who are interested in this technology. According to the study of Al Kemyani et al. (2022), approvals of the adoption of the technology in accounting are needed and regulatory authorities might not be accepting this technology currently due to low trialability and observability. Thus, the researchers hypothesise:

H3: Challenges-government & tax accounting is negatively related to the adoption of blockchain technology in accounting practices in Malaysia.

Independent variable-critically sufccessful factors: Accounting information quality and trust

The information on financial transactions is immutable if Blockchain Technology is implemented. Blockchain Technology can reduce the conspiracies between different parties who are involved in financial transactions, such as revenue or overwriting costs (Afifa et al., 2022). Accountants cannot manipulate the data since all the records are authenticated through the ledgers of Blockchain Technology consequently frauds can be eliminated. The adoption of Blockchain Technology can significantly improve the accounting information quality which will be presented in the financial statements (Afifa et al., 2022). Furthermore, the adoption of Blockchain Technology in accounting practices can remove some existing obstacles. Investors can only see the figures that are presented mechanically and logically in the financial statements in formal terms after the numbers are audited, which causes investors to doubt the reliability of the statements. Investors cannot access or know the transactions and accounting processes accurately. The real profit and the cash flow's timeliness are also difficult for investors to know (Afifa et al., 2022). With Blockchain Technology in accounting practices, intermediaries are not needed because all the records stored will be used to confirm the

information in a distributed manner. It can ensure the safety and reliability of the accounting information by the distributed ledgers and hash chaining. Information asymmetry between the parties can be eliminated (Afifa et al., 2022). Besides, the adoption of Blockchain Technology in accounting practices can positively influence the accounting information quality that is listed in the Conceptual Framework for the Financial Reporting 2018, which are fundamental qualitative characteristics (Relevance, Faithful Representation) and enhancing qualitative characteristics (Comparability, Verifiability, Timeliness, Understandability). Smart contracts and distributed ledgers of Blockchain Technology can positively affect the accounting information quality. In terms of Relevance and Faithful Representation, the adoption of Blockchain Technology in accounting practices is a real-time system that can ensure that it improves the timeliness of accounting information, delivers information on demand, makes sure that the distributed ledgers and smart contracts are non-forgery and executed neutrally (Afifa et al., 2022). In terms of timeliness, comparability, verifiability, and understandability, the adoption of Blockchain Technology in accounting practices can ensure the distributed ledgers present information in real-time and the methods of presenting the accounting information by smart contracts are based on the latest unified accounting standards, tracing of the money origin, calculation method, and the applied accounting standards are also available by the smart contracts of Blockchain Technology (Afifa et al., 2022). These advantages bring efficiency and higher performance to the users and are very useful for accounting practices.

Blockchain Technology in accounting practices can help users who have no peculiar confidence in each other, neutralise their collaborations without the need to go through a central authority or a traditional trusted intermediary (Afifa et al., 2022). In other words, Blockchain Technology creates trust. As mentioned in the previous paragraph, the adoption of Blockchain Technology in accounting practices can help to eliminate accounting fraud and manipulation and improve the accounting information quality and the confidence level of the users of the financial statements. When Blockchain Technology is adopted, the blockchain-based accounting system will rely on a complicated consensus process (Afifa et al., 2022), in which the nodes agree on a specific version of "truth" and only authenticated transactions to be recorded. Blockchain Technology does not undertake the trust on each node, instead, it relies on a complicated consensus process. This characteristic allows the removal of central authority or traditional trusted intermediary, to keep the accounting records validly, fairly, and safely. The complex consensus process establishes a solitary but distributed and agreed validation for each business transaction or record (Afifa et al., 2022). This trusted chain of records is also known as blockchain. According to Liu and Ye (2021), when users trust the adoption of Blockchain Technology in accounting practices, they are willing to search for ways to use it or learn to use it by visiting different websites of the Blockchain Technology service providers. When users realise its usefulness and trust in the technology, it has a positive effect on the intention to adopt the technology in accounting practices. Moreover, trust is one of the constructs that is used in the studies of investing in the adoption of Blockchain Technology in accounting practices because of its influential role in improving the efficiency and performance of accounting practices (Afifa et al., 2022).

Concerning Relative Advantage, which is one of the attributes of Innovation Diffusion Theory, Blockchain Technology in accounting practices presents a system that can meet most of the expectations of the ideal accounting system. It offers solutions

for some long-term challenges caused by the traditional or current accounting information system (Seshadrinathan and Chandra, 2021). Most studies have shown it is significant, demonstrating that when users feel that the relative advantage of blockchain-based accounting overperforms the current accounting system, they are more likely to adopt it. Thus, the researchers hypothesise:

H4: Critically successful factors-accounting information quality is positively related to the adoption of blockchain technology in accounting practices in Malaysia.

H5: Critically successful factor-trust in blockchain technology is positively related to the adoption of blockchain technology in accounting practices in Malaysia.

Independent variable-critically successful factor: Knowledge and skills

According to the study by Jumah and Li (2020), due to the potential effects of Blockchain Technology in accounting practices, users must make rational decisions regarding its adoption. Knowledge of Blockchain Technology is pertinent to the users' decisions. Knowing Blockchain Technology allows users to consider the possible challenges in accounting activities and recognise the potential values by adopting Blockchain Technology to address those challenges. With the knowledge of Blockchain Technology, those challenges may be taking into consideration the existing inherent risks in accounting practices. Other potential benefits of Blockchain Technology such as verifiability and traceability can be interpreted as well if the users have strong knowledge of Blockchain Technology and its process (Jumah and Li, 2020). Moreover, knowledge of Blockchain Technology can help the users to better understand the comparative benefits of Blockchain Technology, the relation of Blockchain Technology with the users' past knowledge and experience as well as the current accounting software. By knowing Blockchain Technology, users can recognise the potential of Blockchain Technology easily when there is an existing challenge that cannot be fundamentally solved by the existing accounting software due to its programming or design, in terms of reliable authentication and doubt on third-party trust (Jumah and Li, 2020). Since the adoption of Blockchain Technology is still in its infancy or commencement stage, knowing Blockchain Technology can assist the users in understanding its features and use it to make a better assessment of its adoption. The knowledge also helps the users to know how and when to adopt Blockchain Technology in accounting practices (Jumah and Li, 2020). Thus, if the innovation of Blockchain Technology in accounting practices is compatible with the users' knowledge of Blockchain Technology, there is a high chance that the users will adopt the technology.

According to the study of Barac et al. (2021), some of the generic skills such as soft or pervasive skills are required by the users to operate Blockchain Technology in accounting practices and the future world of work. One of the skills that is required to better apply Blockchain Technology in accounting practices is the data analytics skill (big data). The programming and coding of data can enable programmatic data extraction in Blockchain Technology. This skill can better enhance the automated fraud detection of Blockchain Technology by knowing the coding. Data analytics skills include some model-building techniques, which can be used on Blockchain Technology for the extraction of data in accounting practices and create different reports to predict some accounting figures from the blockchain-based accounting system and identify the possible challenges (Barac et al., 2021). Furthermore, the skills that are required include

integrated thinking and technological skills. In an accounting environment, users are required to have the ability to agilely connect all the dots to deal with the complexity and the root of all the records in Blockchain Technology. Users might need to have an integrated thinking mind to examine all the interconnected logics of the multiple complex contexts in blockchain-based accounting. Users who have advanced computer literacy skills can also enable a broader understanding of blockchain-based accounting (Barac et al., 2021). Hence, if the innovation of Blockchain Technology in accounting practices is compatible with the users' skills in Blockchain Technology, there is a high chance that the users will adopt the technology.

Based on the Innovation Diffusion Theory, compatibility is one of the attributes that can affect the adoption of Blockchain Technology in accounting practices. According to the definition of compatibility in the previous section, compatibility can also be perceived as relating existing values, behaviours, and experiences of users to new technology. With blockchain-based accounting, users are required to convert double-entry accounting to triple-entry accounting as mentioned in the Introduction. Users have the chance to experience this new form of accounting and bookkeeping. Triple-entry accounting is easier because the blockchain ledgers can automatically record all the transactions if it is defined as "true" by the system. Users just have to check the content on the blockchain and add additional information if it is needed since users are not allowed to edit or change the nodes on the blockchain to prevent fraud (Afifa et al., 2022). The effect of Blockchain Technology on accounting practices is undeniable and users are more motivated to improve "compatibility" to achieve ease of use of the technology (Afifa et al., 2022; Agi and Jha, 2022). Knowledge of Blockchain Technology and skills to operate Blockchain Technology can improve the compatibility to a higher level and easier for users to adapt to it in accounting practices and use it proficiently (Afifa et al., 2022). Therefore, the researchers hypothesise:

H6: Critically successful factor-knowledge of blockchain technology is positively related to the adoption of blockchain technology in accounting practices in Malaysia.

H7: Critically successful factors kills that is applicable on blockchain technology is positively related to the adoption of blockchain technology in accounting practices in Malaysia.

Independent variable-critically successful factors: Technology readiness & computer self-efficacy

Technology readiness is defined as the propensity to embrace new technology as influenced by several factors (Seshadrinathan and Chandra, 2021). It comprises the ability and attitude of technical infrastructure and information technology human resources, incorporating into an innovation or technology. This can influence the adoption of a technology. Individuals who have high technological readiness are well aware of the potential benefits and limitations of the current accounting system. They might be willing to accept some adequate training to improve their capabilities to adopt Blockchain Technology in accounting practices (Seshadrinathan and Chandra, 2021). The incorporation of Blockchain Technology and accounting practices is expected to be a paradigm shift. Therefore, technology readiness becomes one of the factors that can influence the adoption of Blockchain Technology in accounting practices. To ensure a successful adoption of Blockchain Technology in accounting practices, individuals must

be sufficiently prepared to adopt it (Seshadrinathan and Chandra, 2021). Users must be equipped with enough infrastructure and reskilled to work with Blockchain Technology in accounting practices to shift to this new technology. Researchers from major accounting firms such as Deloitte, PwC, KPMG, and EY have started to try out pilots or small-scale trials and experience Blockchain Technology in accounting practices (Seshadrinathan and Chandra, 2021). Technology readiness should be considered by the users before committing the whole Blockchain Technology into the accounting system because the adoption may be very different and can be disruptive in practical compared to theoretical (Seshadrinathan and Chandra, 2021).

Computer self-efficacy is defined as the degree to which an individual believes that he or she can perform a specific task or job using a computer (Afifa et al., 2022). In other words, it is significantly correlated with the expectations of an individual who is using a computer. It is also a precursor to developing the use of computers. It is suggested that the adoption and the ease of using a technology are influenced by computer self-efficacy (Afifa et al., 2022). If an individual is proficient in using computers, their expectation of using new technology is expected to rise. They can adapt to new technology better. Since Blockchain Technology in accounting practices is new and complex, for the users to effectively adopt Blockchain Technology in accounting, users must improve their self-efficacy for them to adapt to the Blockchain Technology via computers and the traditional accounting system will be eliminated gradually (Afifa et al., 2022). Computer self-efficacy is expected to bring ease of use of the blockchain-based accounting system, users will be more confident in their abilities and the intention or willingness to adopt Blockchain Technology in accounting practices will increase (Afifa et al., 2022).

Based on the Innovation Diffusion Theory, complexity, and trialability are the attributes that will affect the adoption of Blockchain Technology in accounting practices. A higher level of technology readiness and computer self-efficacy can bring ease of use of Blockchain Technology, which lowers the complexity of the technology and the intention to adopt blockchain-based accounting will increase. When potential users perceive that the technology is easy to use, they will adopt the technology. Moreover, as mentioned in the previous paragraphs, most of the major accounting firms have started to research and try out pilots of Blockchain Technology in accounting practices. When the trialability of the technology is higher, which means when the technology is tried before the full implementation, potential users are more likely to adopt it (Scott et al., 2008). Thus, the researchers hypothesise:

> H8: Critically successful factor-technology readiness & computer self-efficacy is positively related to the adoption of blockchain technology in accounting practices in Malaysia.

Materials and Methods

Survey research means the researchers collected the responses or data from a sample of individuals and processed them to become the information that was related to the study (Ponto, 2015). One of the strategies that can be used in the survey research is the quantitative research strategy, for example, using a questionnaire that contains numerically rated items. This study collects the responses or data using questionnaires. Formulated questions were listed in the questionnaires to obtain the information needed

for the study. To ensure a high-quality study outcome and process, a representative sample was determined before the distribution of the questionnaire and non-response errors will be eliminated after the responses or data were collected (Ponto, 2015). The questionnaires of this paper are both self-administered and administered by the supervisor of the researchers. The description of the questionnaire and the objectives of collecting the responses were listed at the beginning and each section of the questionnaire. The questionnaire of this study was delivered in an Internet-based program-Google Form, which is practical for bigger sample size and relatively low cost (Ponto, 2015). The order of the questions in the questionnaire was arranged as logically as possible in each section to avoid producing unintended response bias and ensure a better response rate. The questionnaire was divided into eleven (11) sections. The second section to the tenth section asked the respondents to rate the 48 statements using a seven (7) point Likert scale (1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4-Neither agree or disagree, 5-Somewhat agree, 6-Agree and 7-Strongly agree). The unit of analysis of this study is individuals. The targeted respondents of this study are individuals who (1) Aged 18 years old or above, (2) a. Have been/are currently studying/working in accounting fields in Malaysia, or b. Having basic knowledge in Accounting and Having been/are currently studying/working in non-accounting fields in Malaysia (Economics, Business, or Information Technology), (3) Having basic knowledge/experience in Blockchain Technology.

The sampling method that was used in this paper is voluntary sampling (a non-probability sampling technique), because this technique enables the researchers to recruit respondents with relevant expert knowledge in the researched area (Bell et al., 2022). Before implementing voluntary sampling, the research problem and the objectives were determined by the researchers. The attributes of the targeted population were described in the previous paragraph and the number of individuals in the population was estimated to be around 60,000 (Malaysian Institute of Accountants, 2020). After that, the objectives of this study and the invitation were sent to the volunteers who are potential respondents with the targeted attributes and would like to participate in the survey. A trial run sampling was conducted to determine whether the survey was able to be participated by enough respondents with the required attributes. The trail run sampling was satisfactory. Thus, responses were collected continually by using the voluntary sampling method. At the same time, the final sample size was determined (Murairwa, 2015). The sample size, which was estimated to be one hundred and seventy-five (175) respondents, was calculated by using the survey sample size calculator and the sample size formula (Population: 60,000, Confidence Level: 95%, Margin of error: 7.5%-8%). This sample was the representative subset of the population in this quantitative research. The qualities of the volunteers were verified to confirm whether the respondents were selectable for the sample of this study.

After the data were collected, SPSS software was used to analyse the data from the respondents. Six (6) tests were run by using the SPSS software. Firstly, descriptive statistics: frequencies were run to ensure there were no missing values or variables from each response. Next, a reliability test was run to study the items that composed the scales and the characteristics of measurement scales. The model of reliability that was used in this study is Alpha (Cronbach). Descriptive statistics: frequencies were run again to analyse the demography of respondents who participated in the questionnaire. In addition, descriptive statistics: descriptive were run to rank the questions based on the mean, from the highest to the lowest; other descriptive statistics such as minimum,

maximum, and standard deviations of each question were presented as well. Correlation test: bivariate will be run to measure the strength of linear correlation between the two scale random variables. Lastly, regression: linear was run to determine the relationship and the significance level between the dependent variable and the independent variables (IBM Corporation, 2022). The period of this study covered from 28th August 2023 to 31st March 2024.

Results and Discussion

175 respondents were collected for this study. However, five (5) responses were removed during the data cleaning procedures because five (5) of these respondents had not heard about Blockchain Technology, and might have affected the data analysis if the responses were included. According to *Table 1*, among the 170 respondents, there are 98.2% Malaysian and 1.8% Non-Malaysian (Foreigners who are staying/working/studying in Malaysia). In terms of level of education, 73.5% of respondents have a bachelor's degree, which is the highest and 15.9% of the respondents have a Master's degree, which is the second highest. Concerning designation in the company, 48.8% of the respondents are executive or senior executives and almost half of the respondents own these designations. In addition, 72.4% of the respondents' profession is accounting, of which 35% have an accounting degree and 33.3% have an ACCA certificate; 27.6% of the respondents' profession is non-accounting, which 46.8% of the respondents are from IT and Banking & Finance related work fields. In terms of years of working experience, 38.2% and 14.1% of the respondents worked >1-5 years and >5-10 years respectively. Lastly, concerning residence area, 56.5% of respondents are in The Central Region (Selangor and the federal territories of Kuala Lumpur and Putrajaya).

Table 1. *Profile of the respondents.*

Respondent profile	Frequency (N=170)	Percentage (%)
Nationality		
Malaysian	167	98.2
Non-Malaysian	3	1.8
Gender		
Male	80	47.1
Female	90	52.9
Level of education		
Secondary	6	3.5
Diploma	10	5.9
Bachelor's degree	125	73.5
Master's degree	27	15.9
PhD	2	1.2
Designation in the company		
Clerical	55	32.4
Executive	57	33.5
Senior executive	26	15.3
Assistant manager	19	11.2
Manager	9	5.3
Senior manager and above	4	2.4
Profession		
Non-Accounting	47	27.6

Accounting	123	72.4
Accounting Qualification		
Accounting degree	43	35.0
CPA	21	17.1
ICAEW	3	2.4
CIMA	13	10.6
ACCA	41	33.3
MICPA	2	1.6
Non-Accounting Fields		
Economics	9	19.1
Banking & Finance	11	23.4
Management	9	19.1
Marketing	7	15.0
Information Technology	11	23.4
Years of working experience		
</= 1 year	67	39.4
> 1-5 years	65	38.2
> 5-10 years	24	14.1
> 10-15 years	11	6.5
> 15 years	3	1.8
Residence Area		
The Northern Region	16	9.4
The Central Region	96	56.5
The Southern Region	37	21.8
The East Coast Region	12	7.1
East Malaysia	9	5.3

Cronbach's alpha was developed in 1951 to measure the average correlation of items to weigh its reliability (Cronbach, 1951). For data to be considered reliable and valid in a study, Cronbach's alpha value should be greater than 0.7 (Lin et al., 2020). According to *Table 2*, the Cronbach's Alpha of the data relating to the 48 statements of challenges, the critically successful factors and the adoption of Blockchain Technology in accounting practices are 0.964, indicating that the data is highly reliable and valid. *Table 3* displays the top ten highest mean from the statements of the existing variables that explain the challenges, critically successful factors, and the adoption of Blockchain Technology in accounting practices in Malaysia. The top ten statements are from the dependent variable-the adoption of Blockchain Technology in accounting practices in Malaysia and independent variables-Challenges: Government & Tax Accounting, Critically Successful Factors: Knowledge, Skills and Technology Readiness & Computer Self-Efficacy. The top five statements are from the dependent variable-the adoption of Blockchain Technology in accounting practices in Malaysia, and the mean values of these five statements ranged from 5.79 to 5.91 (maximum scale of agreement is 7). As stated in the literature review, the application of Blockchain Technology in accounting practices can reduce redundant activities in business transactions and provide a better level of data security which would enable the improvement of accounting activities. Blockchain Technology that can enable continuous accounting practices such as auditing allows users to provide accounting services easily and more efficiently. Blockchain Technology seems to be popular and will become an indispensable "friend" in accounting practices soon according to the recent technology development trend and the applications of blockchain technologies are focusing on the

accounting profession. Thus, Blockchain Technology can be a new era and can be considered for adoption in accounting practices.

***Table 2**. Reliability test.*

Cronbach's alpha	N of items
.964	48

***Table 3**. Descriptive statistics (selected top mean values).*

Category	Components	Min	Max	M	SD
Blockchain technology would enable users to improve accounting activities.	Adoption	2	7	5.91	.996
Blockchain technology can be a new era for accounting practices.	Adoption	1	7	5.86	1.148
Blockchain technology would make it easier to provide accounting service.	Adoption	2	7	5.84	1.025
Blockchain technology could make the accountant's business more efficient.	Adoption	2	7	5.82	1.068
Blockchain technology can be considered for application in accounting practices.	Adoption	2	7	5.79	1.033
Ability to understand, manage and analyse data is necessary for the implementation of Blockchain Technology in accounting practices.	Critically Successful Factors: Skills	2	7	5.78	1.007
Blockchain in accounting practices is possible and easy to use if someone had showed how to do it first.	Critically Successful Factors: Computer Self-Efficacy & Technology Readiness	2	7	5.75	1.009
There is a need for a globally agreed and organized framework for the governance of this technology.	Challenges: Government & Tax Accounting	2	7	5.75	1.009
Knowledge in Blockchain Technology would help users better understand its features.	Critically Successful Factors: Knowledge	2	7	5.70	1.008
Knowledge in Blockchain Technology assists users to make an informed decision about when and how to adopt it in accounting practices.	Critically Successful Factors: Knowledge	1	7	5.69	1.077

Notes: Min=Minimum; Max=Maximum; M=Mean; SD=Standard Deviation

The statements from the independent variables-knowledge and skills, which are the critically successful factors, are ranked sixth, ninth, and tenth among the top ten highest means from the statements of the existing variables. As stated in the literature review, knowledge of Blockchain Technology can help users better understand the comparative advantages of Blockchain Technology and its features. Users can make better decisions when they understand Blockchain Technology in accounting practices and skills such as data analytics skill are necessary for the implementation of Blockchain Technology in accounting practices. Next, the statements from the independent variables-Critically Successful Factors: Technology Readiness & Computer Self-Efficacy and Challenges: Government & Tax Accounting are ranked seventh and eighth respectively. Most of the respondents agreed that ease of use of Blockchain Technology is important and to achieve ease of use, most of the respondents think that it's preferable if somehow had shown how to do it first. Respondents also think that an organized framework or a globally approved framework is needed for Blockchain Technology in accounting practices. To address the research objectives on the relationship between the challenges, the critically successful factors and the adoption of Blockchain Technology in accounting practices in Malaysia, the following multiple regression was run:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \varepsilon$$

Where; Y=The Adoption of Blockchain Technology in accounting practices in Malaysia; X_1=Challenges–Cost; X_2=Challenges–Risks; X_3=Challenges–Government &

Tax Accounting; X_4=Critically Successful Factors–Accounting Information Quality; X_5=Critically Successful Factors–Trust; X_6=Critically Successful Factors–Knowledge; X_7=Critically Successful Factors–Skills, X_8=Critically Successful Factors–Technology Readiness & Computer Self-Efficacy, ε=Error term; β_0=The intercept; and β_1, β_2, β_3, β_4, β_5, β_6, β_7 and β_8=The regression coefficients for the eight (8) independent variables. As shown in *Table 4* the coefficient β_1 (Challenges–Cost), β_4 (Critically Successful Factors–Accounting Information Quality), β_6 (Critically Successful Factors–Knowledge), β_7 (Critically Successful Factors–Skills) and β_8 (Critically Successful Factors–Technology Readiness & Computer Self-Efficacy) are positively and significantly related to the adoption of Blockchain Technology in accounting practices in Malaysia, while β_2 (Challenges–Risks) and β_5 (Critically Successful Factors–Trust) are negatively and significantly associated with the adoption of Blockchain Technology in accounting practices in Malaysia. The whole model is significant (F=37.198; p=<0.001). The R2 of 0.631 indicates that 63.1% of the variation in the dependent variable is explained by variation in the independent variables of this study. The remaining percentage (36.9%) is explained by variables outside the research model.

Table 4. *Challenges, critically successful factors and the adoption of blockchain technology in Accounting practices in Malaysia.*

Category	Beta	t-value	Significant
Constant		1.730	0.086*
1: Cost	0.222	3.005	0.003***
2: Risks	-0.113	-1.702	0.091*
3: Government & Tax Accounting	0.113	1.575	0.117
4: Accounting Information Quality	0.155	2.042	0.043**
5: Trust	-0.129	-2.051	0.042**
6: Knowledge	0.292	3.257	0.001***
7: Skills	0.163	1.926	0.056*
8: Technology Readiness & Computer Self-Efficacy	0.183	2.693	0.008***
R^2	0.631		
F-Statistics	37.198		
Significance	< 0.001		

Based on the results, the beta of 1: Cost is positive and significant (β_1=0.222; p=0.003<0.01), which means that the cost of Blockchain Technology is positively and significantly related to the adoption of Blockchain Technology in accounting practices in Malaysia. The result is different from the hypothesis H1. According to the study of Al-Zaqeba et al. (2022), Blockchain Technology leads to lower costs in the long run because the implementation of Blockchain Technology in accounting practices can reduce the overall cost in the future. Most individuals are willing to afford the higher cost of Blockchain Technology in the initial implementation stage because of its long-term benefits in the future and its functions. Blockchain Technology helps to eliminate the risks of loss of information that are due to the failure of a party involved at a single point in time because the data are synchronised among all the participants. The adoption of Blockchain Technology in accounting practices improves the accuracy of data by increasing the trust among the parties (Demirkan et al., 2020) as well as reducing the cost of a business such as lowering the operational costs that are related to the processing of transactions (Han et al., 2023). The cost of Blockchain Technology is one of the challenges of its adoption in accounting practices because it is costly and has

higher set-up costs or initial implementation costs. However, the result of this study shows that the higher cost of Blockchain Technology leads to a higher possibility of adoption of Blockchain Technology in accounting practices, and this can be explained by the study of Demirkan et al. (2020), which mentions that adoption of Blockchain Technology that leads to cost-effective of a business and secured accounting transactions can increase the adoption of Blockchain Technology in accounting practices, although the cost (set up cost and maintain cost) of Blockchain Technology would be high, the long-term benefits in the future of Blockchain Technology increases the adoption of Blockchain Technology. Most of the potential users consider the advantages and the feasibility of the technology in the long run, therefore even though the cost of Blockchain Technology may be higher currently, they are still willing to adopt it (Han et al., 2023; Demirkan et al., 2020). The authors also suggested that the higher cost of Blockchain Technology can be lowered if the cost is divided equally among all the parties who are willing to the adoption of Blockchain Technology and this could be a cheaper and more efficient way to do so (Demirkan et al., 2020).

In addition, based on the result, 3: Government & Tax Accounting is not significant ($p=0.117>0.10$), which means government & tax accounting is not related to the adoption of Blockchain Technology in accounting practices in Malaysia. This can be explained by the study of Ayedh et al. (2021), which mentioned that the adoption of Blockchain Technology can cause some significant governance problems. For example, authorities such as governments have to govern the Blockchain Technology by updating the regulations which takes time and that might be only for technical reasons or changing of assumptions and constraints. In Malaysia, there are no regulations for Blockchain Technology. Currently, it only depends on the parties that are voluntarily involved in Blockchain Technology without any regulations or guidance related to Blockchain Technology in accounting practices. Also, according to the study by Nazim et al. (2021), it mentioned that there is still no effort toward the adoption of Blockchain Technology in different business fields in Malaysia, including accounting, either from the government side or financial institutions side. The study also highlighted that there is still no visible or tangible policy that shows the plans to establish Malaysia as one of the significant hubs for Blockchain Technology currently. Malaysia has also been found as a country that is ignorant towards Blockchain Technology, especially from the government's point of view. The independent variable 3: Government & Tax Accounting is not significant, because the rules and regulations from government regulations and tax accounting are meant to be abide by or accepted, therefore, there is no direct relationship between the government & tax accounting and the adoption of Blockchain Technology in accounting practices in Malaysia, which is also explained by Nazim et al. (2021) in their study. Thus, Malaysia is still at its initial stage of the adoption of Blockchain Technology in accounting practices and Blockchain Technology is an inevitable technology in accounting practices in the future, which Malaysia has to be prepared for (Ayedh et al., 2021).

Based on the results, the beta of 5: Trust, is negative and significant ($\beta_5=-0.129$, $p=0.042<0.05$), which means the trust in Blockchain Technology is negatively and significantly related to the adoption of Blockchain Technology in accounting practices in Malaysia. The result is different from the hypothesis H5. This can be explained by the study of Zavolokina et al. (2020), which mentioned that trust in Blockchain Technology will be hindered by the lack of understanding and experience in Blockchain Technology in accounting practices. Trust in Blockchain Technology is related to the

complexity of Blockchain Technology because blockchain-based accounting system relies on a complicated consensus process or a complex system to create trust. Thus, trust in Blockchain Technology in accounting practices is high because of the complex or complicated consensus process. The complex process may not influence the trust perception of the users, but it may impede the trust in Blockchain Technology (the willingness to depend on the technology) (Zavolokina et al., 2020). Referring to the previous study, increased trust in Blockchain Technology that lowers the possibility of adoption of Blockchain Technology in accounting practices may be due to the increased complexity of Blockchain Technology. In other words, although the increased complexity of the consensus process of Blockchain Technology can ensure the security of accounting transactions in the blockchain network and improve the trust in Blockchain Technology (Chen et al., 2023; Dyball and Seethamraju, 2022; Zavolokina et al., 2020), the increased complexity of Blockchain Technology may also cause the potential users to feel uncertain which can lead to difficulties in building up the trust in Blockchain Technology in accounting practices (Chen et al., 2023; Zavolokina et al., 2020). For example, some of the users might think it is difficult to understand the advantages of Blockchain Technology in a business process because they do not understand the changes in data and process levels of Blockchain Technology due to its complexity (Chen et al., 2023). Users may find it hard to wrap their minds around the upgraded system and pick up something completely different. Users are reluctant to try new technology and also struggle to cope with upgraded information systems, such as Blockchain Technology (Dyball and Seethamraju, 2022). Therefore, it is difficult to convince users to change the current accounting system to blockchain-based accounting and try it. However, the researchers suggested that a given level of complexity of Blockchain Technology is very prominent (Zavolokina et al., 2020).

According to *Table 4*, the independent variable 2: Risks is negatively and significantly (β_2=-0.113; p=0.091<0.10) related to the adoption of Blockchain Technology in accounting practices in Malaysia. The result is the same with H2, which has been stated in the literature review and by the study of Mahdi and Baqer (2023). Blockchain-based accounting may involve risks such as data loss, privacy issues, frauds, errors, and technical glitches of cloud storage Blockchain Technology may happen in the process of the submission of accounting transactions or records (Vardia and Singh, 2022). The results show that the risks of Blockchain Technology may cause the adoption of Blockchain Technology in accounting practices to be low. This can be explained by the Innovation Diffusion Theory, which mentions that when potential users find no relative advantage in the technology, the adoption of the technology will be low. Since Blockchain Technology is still in the uncertain stage in accounting practices, it is risky or riskier than the currently-in-use accounting system, which shows that Blockchain Technology in accounting practices is not outperforming in terms of relative advantage. The result also proves that 2: Risks of Blockchain Technology is one of the challenges of the adoption of Blockchain-based accounting in Malaysia.

Next, the independent variable 4: Accounting Information Quality is found to be positively and significantly (β_4=0.155; p=0.043<0.05) related to the adoption of Blockchain Technology in accounting practices in Malaysia. The result is the same with H4, which has been stated in the literature review and by the study of Afifa et al. (2022). Blockchain Technology can reduce the conspiracies between different parties who are involved in financial transactions, such as revenue or overwriting costs (Afifa et al., 2022). Blockchain Technology which can improve the quality of accounting

information that is listed in the Conceptual Framework is positively influencing the adoption of Blockchain Technology in accounting practices. According to the Innovation Diffusion Theory, technology with relative advantage encourages potential users to adopt the technology. Since Blockchain-based accounting can better enhance the accounting information quality as stated in the conceptual framework, the adoption of Blockchain-based accounting is high in Malaysia in terms of relative advantage based on the results. Thus, 4: Accounting Information Quality is one of the critically successful factors that are positively and significantly associated with the adoption of Blockchain Technology in accounting practices in Malaysia in the view of relative advantage.

The independent variables 6: Knowledge and 7: Skills are found to be positively and significantly (β_6=0.292; p=0.001<0.01 and β_7=0.163; p=0.056<0.10) related to the adoption of Blockchain Technology in accounting practices in Malaysia. The results are the same with H6 and H7, which have been stated in the literature review and by the study of Barac et al. (2021) as well as Jumah and Li (2020). By having the knowledge and skills regarding Blockchain Technology, potential users can recognise the potential of Blockchain Technology easily and have a broader understanding of Blockchain Technology in accounting practices. Compatibility of Innovation Diffusion Theory is applied to explain the relationship between knowledge and skills and the adoption of Blockchain-based accounting in Malaysia. When Blockchain Technology is compatible with the knowledge or skills of an individual, there is a higher chance for the individual to adopt it. Potential users are also more motivated to improve "compatibility" to achieve the use and adoption of Blockchain-based accounting. Therefore, 6: Knowledge and 7: Skills are the critically successful factors that are positively and significantly associated with the adoption of Blockchain Technology in accounting practices in Malaysia in the view of compatibility.

Lastly, according to *Table 4*, the independent variable 8: Technology Readiness & Computer Self-Efficacy is positively and significantly (β_8=0.183; p=0.008<0.01) related to the adoption of Blockchain Technology in accounting practices in Malaysia. The result is the same with H8, which has been stated in the literature review and by the study of Afifa et al. (2022) as well as Seshadrinathan and Chandra (2021). To achieve a successful adoption of Blockchain Technology in accounting practices, individuals must be sufficiently prepared to adopt it. Moreover, computer self-efficacy is expected to bring ease of use of the blockchain-based accounting system and potential users will be more confident in their abilities in using the blockchain-based accounting (Afifa et al., 2022). Complexity and trialability of Innovation Diffusion Theory are applied to explain the relationship between Technology Readiness & Computer Self-Efficacy and the adoption of Blockchain-based accounting in Malaysia. A higher level of technology readiness and computer self-efficacy can bring ease of use of Blockchain Technology and pilots of Blockchain Technology in accounting practices are carried out by various accounting professionals, which lowers the complexity of the technology and increases the trialability. Hence, 8: Technology Readiness & Computer Self-Efficacy is one of the critically successful factors that are positively and significantly associated with the adoption of Blockchain Technology in accounting practices in Malaysia in the view of complexity and trialability.

Conclusion

This study provides insights into the challenges and the critically successful factors of the adoption of Blockchain Technology in accounting practices in Malaysia. Innovation Diffusion Theory is applied to explain the results of the study. The study is conducted within the accounting field in a developing country–Malaysia. One of the biggest advantages of Blockchain Technology in accounting practices is to improve the quality of accounting information and financial reports. The results of this study can be a reference for related authorities or professional bodies as to the implementation or adoption of Blockchain Technology in accounting practices. Blockchain Technology has the potential to help accounting become more professional in the future. Therefore, studies in similar fields can be carried out or explored more by other emerging countries. Despite the achievement of the research objectives, there are some limitations to this study. Firstly, the sample size was perceptibly small. Only 170 respondents are analysed, while the population of knowing Blockchain Technology or relating to accounting fields may be large. Thus, the results are not greatly generalised. Diversification is required to comprehensively evaluate the relationship between the challenges, critically successful factors, and the adoption of blockchain-based accounting. The reader of this study should be cautious while reading and generalising the results. In addition, the findings are interpreted in the context of the developing country–Malaysia. There may be geographical limitations on the extent of the challenges and the critically successful factors of the adoption of Blockchain Technology in accounting practices.

Further studies can examine the impacts of Blockchain Technology in accounting practices to provide deeper insights, especially from the point of view of auditing and assurance services. This can support regulatory bodies that always ensure the compliance and reliability of financial reporting while establishing accounting standards and guidelines relevant to Blockchain Technology systems (Anis, 2023). In addition, further studies can consider gathering secondary data from companies or organizations that participate in the study of blockchain-based accounting to reduce sampling biases. Similar studies can also be carried out to compare the challenges and the critically successful factors of the adoption of Blockchain Technology in accounting practices with other developing countries. Similarities or differences can be identified among the developing countries regarding this adoption and improvements can be made to take the best course of action to address the challenges or other relevant issues.

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Conflict of interest

The authors confirm that there is no conflict of interest involved with any parties in this research study.

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