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Blockchain technology: an examination of use-cases in the accounting profession

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Blockchain technology: an examination of use-cases in the accounting profession

Sibusiso Malinga

A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business

Johannesburg, 2020

ABSTRACT

The accounting profession is one of the most sought-after professions. Worldwide, accountants are in high demand, making this a lucrative career. Most companies, non-profit organisations and government departments need accountants and rely on accounting skills to ensure that finances are managed professionally and that there is accountability. However, the accounting profession demands a great deal of manual work, which takes up time. Manual tasks are also prone to errors.

The primary objective of this study was to determine the current manual accounting tasks and the tasks that can be automated with blockchain technology. The secondary purpose was to determine how the automation of ongoing accounting tasks will affect the accounting profession.

The study adopted a mixed method of research. The sample comprised 21 accountants representing two companies in South Africa, and the sampling techniques were chosen for convenience and were of a purposive nature.

The results provided some valuable insights into current manual accounting tasks. These tasks can be automated by blockchain technology, the time spent on these manual accounting tasks, the frequency of the manual accounting tasks, and the anticipated impact of automating tasks in the accounting profession. The results showed that blockchain technology could save accountants a great deal of time that could be used on more valuable tasks in terms of financial analysis and reporting.

The study will assist accountants in a leading logistics company with identifying manual tasks currently being undertaken. Recommendations regarding blockchain technology will be made available to the company, and this research will contribute to the optimisation of the accountant's time and tasks. The study will add to the blockchain technology and the body of knowledge (BoK) in the accounting profession.

KEY WORDS: Blockchain technology, accounting

DECLARATION

I, _____, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name: Signature:

Signed at ……

On the …….. day of …… 20…..

DEDICATION

This dissertation is dedicated to my late parents; Albert Magagane Malinga and Rose Khetsekile Malinga. They always inspired and encouraged me to keep learning and instilled in me the "education is the key to success" principle.

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LIST OF ACRONYMS

ACCA	Association of Chartered Certified Accountants
AI	Artificial Intelligence
AICPA	American Institute of Certified Public Accountants
CA (SA)	Chartered Accountant South Africa
CFA	Chartered Financial Analyst
CIMA	Chartered Institute of Management Accountants
CPA	Certified Public Accountants
EY	Ernst and Young
IFRS	International Financial Reporting Standards
IoT	Internet of Things
IP	Internet Protocol
PWC	PricewaterhouseCoopers
SAICA	South African Institute of Chartered Accountants
SAIPA	South African Institute of Professional Accountants

CHAPTER 1. INTRODUCTION

1.1 Purpose of the study

Global digitalisation and the automation of the fourth industrial revolution have introduced technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), Big Data, and blockchain technology. These digital technologies are disrupting many sectors of society, and changing the way processes have been implemented over the years (Enzo, 2017). The introduction of blockchain technology in the accounting profession will automate most of the manual work currently being done by accountants, which may lead to loss of jobs if the current roles do not evolve into more strategic roles (Monterio, 2016). Without knowledge of blockchain and other technologies, accountants may find that they are no longer relevant if they do not progress and learn how to use these "disruptive" digital tools (Smith, 2018). The purpose of this study is to determine which accounting tasks are presently handled manually and can be automated with blockchain technology.

1.2 Context of the study

The accountants' role focuses on traditional sections of costing and financial analysis; for example, performance analysis, operations budgeting and cost control (Pietrzak & Wnuk-Pel, 2015). The accounting profession includes manual verification of financial data working with debits and credits (Augustine, Giberson & Woodside, 2017). The accounting profession involves many manual tasks and relies on accountants and their understanding of accounting standards (Riahi-Belkaoui, 2017). The profession relies on integrity and ethics: all qualified accountants belong to a central governing body in every country or region. This body regulates the profession and maintains integrity, ensuring all members adhere to the standards and stipulated codes of conduct (IFAC, 2019).

In South Africa, accountants become members of the South African Institute of Charted Accountants (SAICA) after completing accounting studies at university, completing learnership programmes and passing the qualifying exams (SAICA, 2018).

After meeting all requirements and registering as members of SAICA, accountants are allowed to use the CA (SA) designation and become certified commissioners of oaths. Other international accounting bodies, such as ACCA, SAIPA, CIMA, CPA and CFA, also have members in South Africa.

The blockchain technology is a distributed ledger that registers and shares all transactions that happen within the blockchain network (Azzi, Chamoun, & Sokhn, 2019). As such, blockchain technology can solve the problem of traceability for accountants, as transactions can be easily verified by checking their consistency with all other blocks in the chain (Brincat, Lombardo, Morabito, & Quattropani, 2019). Blockchain technology can be utilised to achieve authorisation, confidentiality, security, authentication, accountability, integrity, and non-repudiation for immediate applications that may not be supported efficiently by a centralised system (Aggarwal et al., 2019).

It is predicted that blockchain technology will transform the accounting profession and automate the manual processes that are currently being undertaken (Hood, 2018).

1.3 Research problem

Digitalisation and the 4th Industrial Revolution (4IR), also known as Industry 4.0, is rapidly transforming economies across the globe. Profound changes in the labour market can be expected due to intelligent, interconnected digitalisation (Enzo, 2017). Globally, businesses face two dilemmas regarding digitalisation: new ways of organising and dividing labour in production and between humans and machines (Enzo, 2017).

The role of the accountant will evolve and be completely different in future. New functions may emerge, requiring accountants to understand and use technologies like blockchain for all manual processes ensuring faster turnaround time for tasks (Chiu, Liu, Muehlmann, & Baldwin, 2019). The problem is that much of the manual work being done in the accounting profession takes time and manual tasks are prone to errors. However, it is not clear which tasks can be digitised/automated by adopting blockchain technology.

1.4 Research questions

The following research questions are proposed to address the problem mentioned earlier.

1) Which accounting tasks are currently manual and can be automated with blockchain technology?

2) How will the automation of current accounting tasks by blockchain technology affect the accounting profession?

1.5 Significance of the study

Previous studies indicate that blockchain technology is one of the digital technologies that will impact the accounting profession by automating tasks, thereby saving time that accountants can use for more challenging functions. However, most of the previous studies were conducted in developed economies, and these studies did not identify which accounting tasks were manual. In addition, the earlier studies were theoretical in nature. This has highlighted an opportunity for more empirical studies to be conducted.

Theoretically, this study will add to the BoK available on blockchain technology and the accounting profession. Furthermore, the study will contribute empirical research on blockchain technology in emerging economies. The researcher hopes to assist accountants in a leading logistics company to identify manual tasks currently being performed and to provide recommendations to the company regarding blockchain technology.

1.6 Delimitations of the study

The study focuses mainly on accountants working for a logistics company in South Africa. Other professions within the company, such as treasury management, do not form part of this study.

1.7 Definition of terms

Blockchain – blockchain is a distributed ledger with the capability of maintaining the integrity of transactions by decentralising the ledger among participating users (Atlam, 2018).

Internet of Things – IoT is recognised as a dynamic, global network of related things that are separately addressable, based on general and interoperable transmission protocols and with added capabilities that self-configure (Lampropoulos, Siakas, & Anastasiadis, 2019).

Artificial intelligence – AI is a series of computer-based processes whose applications are data-driven, and based on machine-learning procedures. These techniques require large amounts of pre-structured data utilised to teach algorithms (Dickow & Jacob, 2018).

Digitalisation – Digitalisation can be defined as the integration of the proliferation of mobile devices, the use of internet-based technologies and utilisation of data analytics in the collaboration between market agents (Bott & Milkau, 2015).

Accounting – Accounting refers to the record-keeping and disclosing (reporting) of the financial transactions of an organisation making use of the traditional double-entry system (Dillard & Vinnari, 2019).

1.8 Chapter outline

The chapter outline is detailed in Table 1.

Table 1: Chapter outline

Chapter	Content
Chapter 1 - Introduction	In this chapter, the researcher presents the nature of the study by first exploring the background to the problem as well as the problem statement. The researcher then discusses the significance of the study, the objectives of the study and the research questions.
Chapter 2 - Literature review	In this chapter, the researcher delivers a detailed literature review of the study. Different definitions of blockchain technology are expored and the role of blockchain technology in the accounting field is examined.
Chapter 3 - Research methodology	The research methodology utilised in the study is presented. The researcher introduces the research instrument and the questionnaires as a method of data gathering from accountants regarding their roles.
Chapter 4 - Presentation of results and findings	The results and findings are presented in this chapter.
Chapter 5 - Discussion of results and findings	The results and findings are analysed in the form of a discussion regarding the data collected and presented in this chapter. The results and findings are also integrated with the literature review.
Chapter 6 - Conclusion and recommendations	This chapter concludes the research study and formulates recommendations to accountants on how they can incorporate blockchain technology in the accounting profession.

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

The background of the study, the problem statement, research questions, the proposed study method and the limitations were discussed in the previous chapter. In this chapter, the aim is to critically review the available literature on blockchain technology and its impact on the accounting profession. The first part of the literature review chapter will begin by discussing the theoretical implications of the adoption of blockchain technology in the accounting profession followed by discussing the various definitions of blockchain technology and understanding how this technology operates. The chapter proceeds to discuss the benefits of blockchain and later explains how blockchain is used in the accounting profession. The empirical studies undertaken on blockchain accounting are discussed, and finally, the conclusion on the literature review is presented.

The theoretical implications of the adoption of Blockchain technology in the accounting profession can be analysed using the agency theory and the information asymmetry theory.

2.1.1 Agency theory

The agency theory is commonly accepted in economics research. It is among the leading theories utilised to describe associations in organisations (Bøe, Gulbrandsen, & Sørebø, 2015). The agency risk model is used in corporate governance to distinguish between shareholders (principals) and the senior managers (agents) that modern organisations employ (Shaikh & Colarelli O'Connor, 2020).

The purpose of the accounting process is to produce information for the shareholders in the form of interim results, annual financial statements and integrated reports. The benefit of adopting Blockchain technology is that transactions are visible and manual processes are automated. This ensures that financial results are finalised speedily and that the work of external auditors is greatly simplified. The agency risk is higher if the agent's processes are not apparent to the principal. The automation of accounting

processes by Blockchain technology will ensure the principal has visibility of the processes.

Studies conducted by Maestrini, Luzzini, Caniato, and Ronchi (2018) found that agency theory has been used to indicate that:

(a) Performance measurement systems used as benchmarks enhance business performance by lowering information asymmetry between shareholders and agents, and that

(b) Monitoring and incentives increase the target compatibility between the shareholders and agents.

2.1.2 Information asymmetry

The agency theory is characterised by information asymmetry, moral hazard and adverse selection. Information asymmetry arises when one party is better informed than the other party. Most of the time, it is the agent that has an information advantage over the principal as the agent is directly involved in the daily operations of the organisation (Boučková, 2015).

Most hazard problems are augmented when there is more information asymmetry between the agent and the principal, which leads to high costs of monitoring (Hoffmann & Kleimeier, 2020). Financial transparency supports organisations with lower information asymmetry, which means that larger organisations which are listed grow faster than firms with higher information asymmetry.

Further, financial openness leads to a higher salary difference between large and small organisations. Blockchain technology will lower the information asymmetry of organisations as there will be transparency and clear visibility of transactions. Ting Yu, Zhiwei Stanley Lin, and Qingliang Tang (2018) conducted a study on the application of blockchain technology in accounting and its impact. This study found that organisations can use blockchain technology as a tool to disclose financial and non-financial data in the short run. In the long run, organisations can use blockchain technology and smart contracts to reduce errors in the disclosure of financial data,

effectively improving reliability, comparability and timeliness of accounting data leading to a reduction in information asymmetry.

2.1.3 Blockchain technology

Blockchain is a distributed digital transaction ledger with similar versions maintained on numerous computer systems and regulated by different organisations (Scott, Loonam, & Kumar, 2017). Khandelwal (2019) defines blockchain as a chain of blocks that are connected using cryptography, whereby each block includes a cryptographic hash of the previous block, which is time-stamped and encrypted and creates a record of the continuously growing transaction data. A hash is a 64-character alphanumeric special code allocated to a transaction that makes each transaction unique, ensuring that the initial information cannot be seen by a third party (Rao & Pandurangiah, 2018).

All completed transactions are recorded permanently in a public ledger in a verifiable, transparent, secure format with a timestamp and other particulars. Blockchain technology allows for the creation of a decentralised environment, where the cryptographically validated transactions and data are not governed by any third-party organisation (Holotescu, 2018). The decentralisation of the blockchain network without a central governing authority that approves the transactions means that the blocks cannot be altered and that the behaviour of the network cannot be amended (Kokina, Mancha, & Pachamanova, 2017). In simple terms, blockchain technology is a decentralised database that enables the immediate verification and communication of data (Appelbaum, 2018). Figure 1 illustrates how blockchain technology functions.

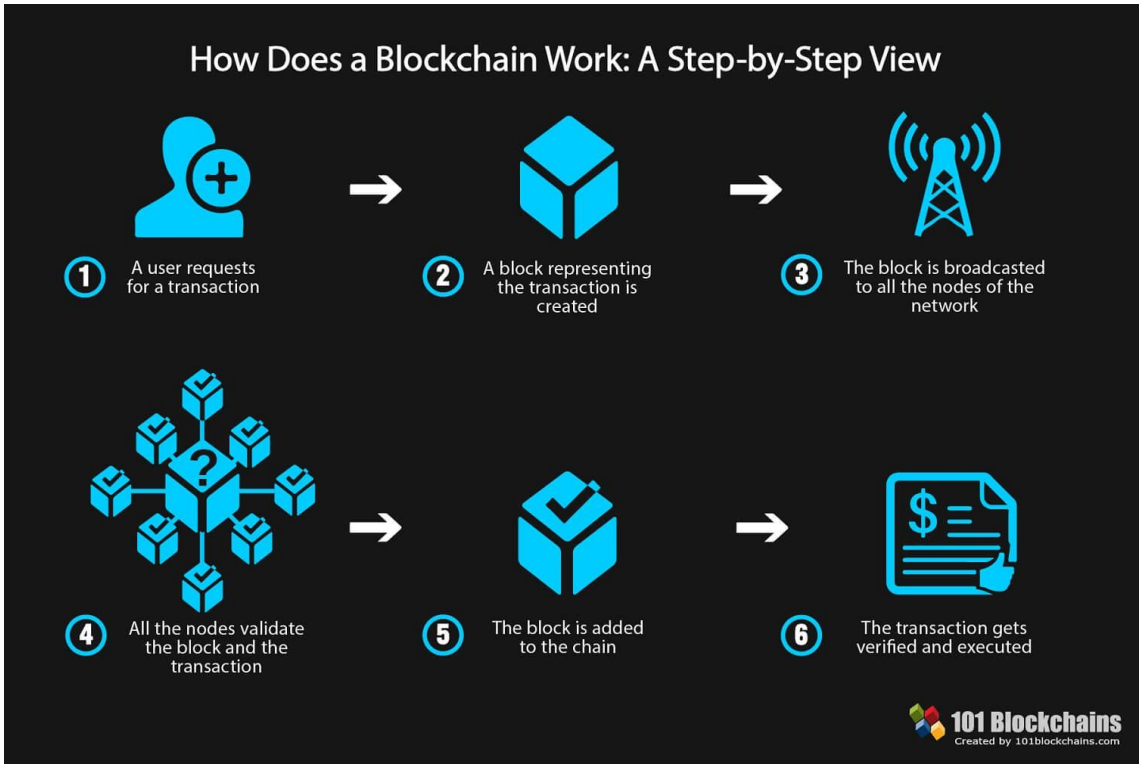


Figure 1: How does a blockchain work? A step-by-step view (Amwar, 2018)

According to Rao and Pandurangiah (2018), there are three popular types of blockchain; namely, private, public, and consortium blockchains. A private blockchain is where the network requires an invitation to be added. Furthermore, a participant cannot alter the blockchain unless they have permission to do so – large enterprises, for instance. A public blockchain enables any person to transact on the network, and transactions are transparent, yet they are unknown. Examples are Bitcoin and Ethereum. A consortium blockchain is a combination of a private and a public blockchain, such as a group of firms (banks, for example) creating their own network (Rao & Pandurangiah, 2018).

2.1.4 Characteristics of blockchain technology

The characteristics of blockchain include decentralisation, detrusting, transparency, traceability, anonymity, and credibility (Yang, 2019). Blockchain technology is based on decentralised administration and data infrastructure, which enables users to transact with each other directly without the requirement for a credible intermediary (Pereira, Tavalaei, & Ozalp, 2019). Blockchain is detrusting because blockchain technology is implemented in a decentralised network; this means that the transfer of

data between nodes in the network does not demand common trust between the participants in the network. Blockchain technology is based on the peer-to-peer principles for network protocols and unique mathematical procedures, using decentralised structures or partial-centre structures that create a trust relationship between the distributed system structures and the network nodes. The transaction data in every single block are stored in the blockchain, causing the transaction to be detrusting (Yang, 2019). Blockchain technology removes the need for trust, which results in transparency throughout the whole ecosystem (O'Dair & Beaven, 2017).

Blockchain ensures that each transaction is digitally signed, time-stamped and can easily be traced back to a specific time (Wang, Zhu, Ni, Gu, & Zhu, 2019). Blockchain is anonymous as the blockchain encrypts data using asymmetric encryption techniques. Within the blockchain platform, it is not necessary to reveal the true identity of the node linked with each participant. This anonymity feature protects the security and privacy of the participants. Blockchain is credible as the exchange of data in the blockchain is entirely reliant on self-control. Blockchain depends on each node to develop a strong calculation that protects against external breaches without any human intervention (Yang, 2019).

Figure 2 illustrates how blockchain technology connects everyone on the network and transactions are visible to all parties concerned.

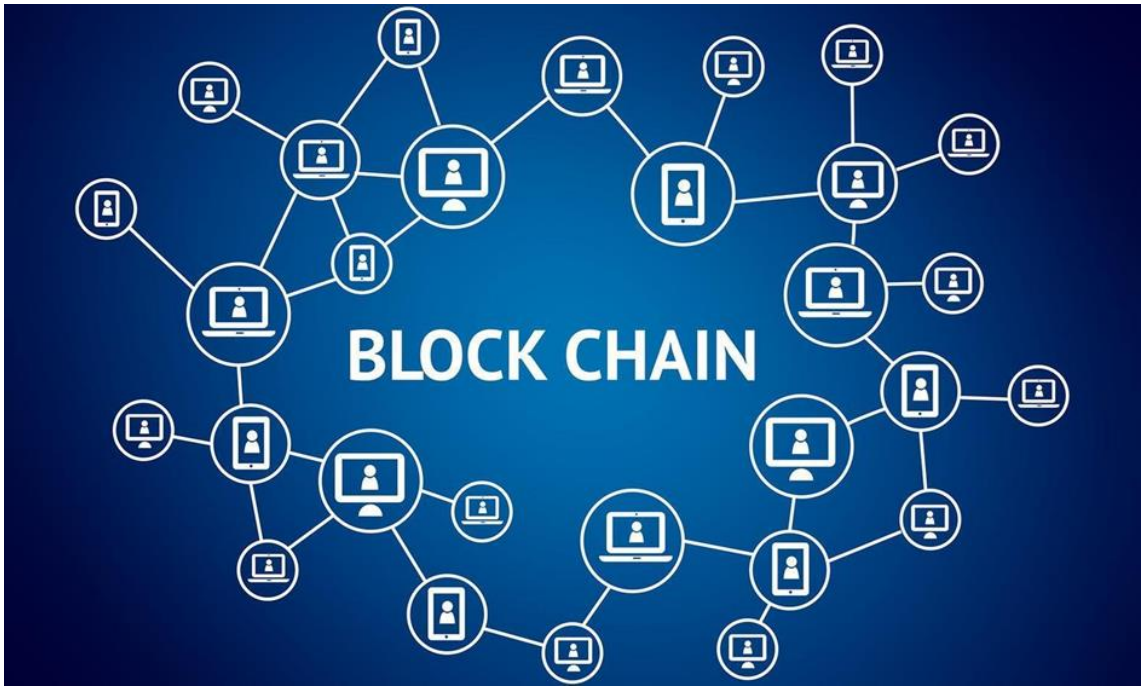


Figure 2: Blockchain (Seatstomeet, 2017)

2.1.5 Benefits of blockchain technology

A study by Chinaka (2016), identified the benefits of blockchain as increased transparency, low scalability costs and easier scalability. Increased transparency means that the decentralised register of ownership ensures that all transactions are recorded in the system and visible to all parties in a particular transaction. Any changes made will be visible and will require approval from all parties involved. The low cost of transactions benefit is achieved because the transaction costs are reduced. There are no third parties or intermediaries involved in the transactions. Scalability is simpler, as it is easier and cheaper to scale services to reach a wider audience as there is no physical infrastructure in blockchain.

According to Mori (2016), other benefits of blockchain are near real-time settlement, traceability, low cost, high accuracy, reliability, encryption, and a distributed ledger. The benefit of near real-time settlement is because the distributed ledgers are updated immediately, which saves time compared to other remittance systems. Traceability, as all transactions are listed on multiple nodes, leaves a transparent audit trail. Encryption is a benefit as blockchain technology requires cryptographic proof, ensuring that

participants can transact with each other directly without requiring a trusted intermediary.

Accuracy is a benefit as all the participants must agree to the transaction before completion, which prevents fraud. A distributed ledger is beneficial as a public history of transactions is recorded by the peer-to-peer distributed network, which becomes computationally almost impossible for an attacker to alter. Low cost is a result of transactions proceeding via nodes, which remove the need for a hub computer at the centre of the network. Reliability, as the distributed ledger system ensures that the mechanism continues to function even if one party experiences a system failure.

Figure 3 illustrates the key features of blockchain technology.

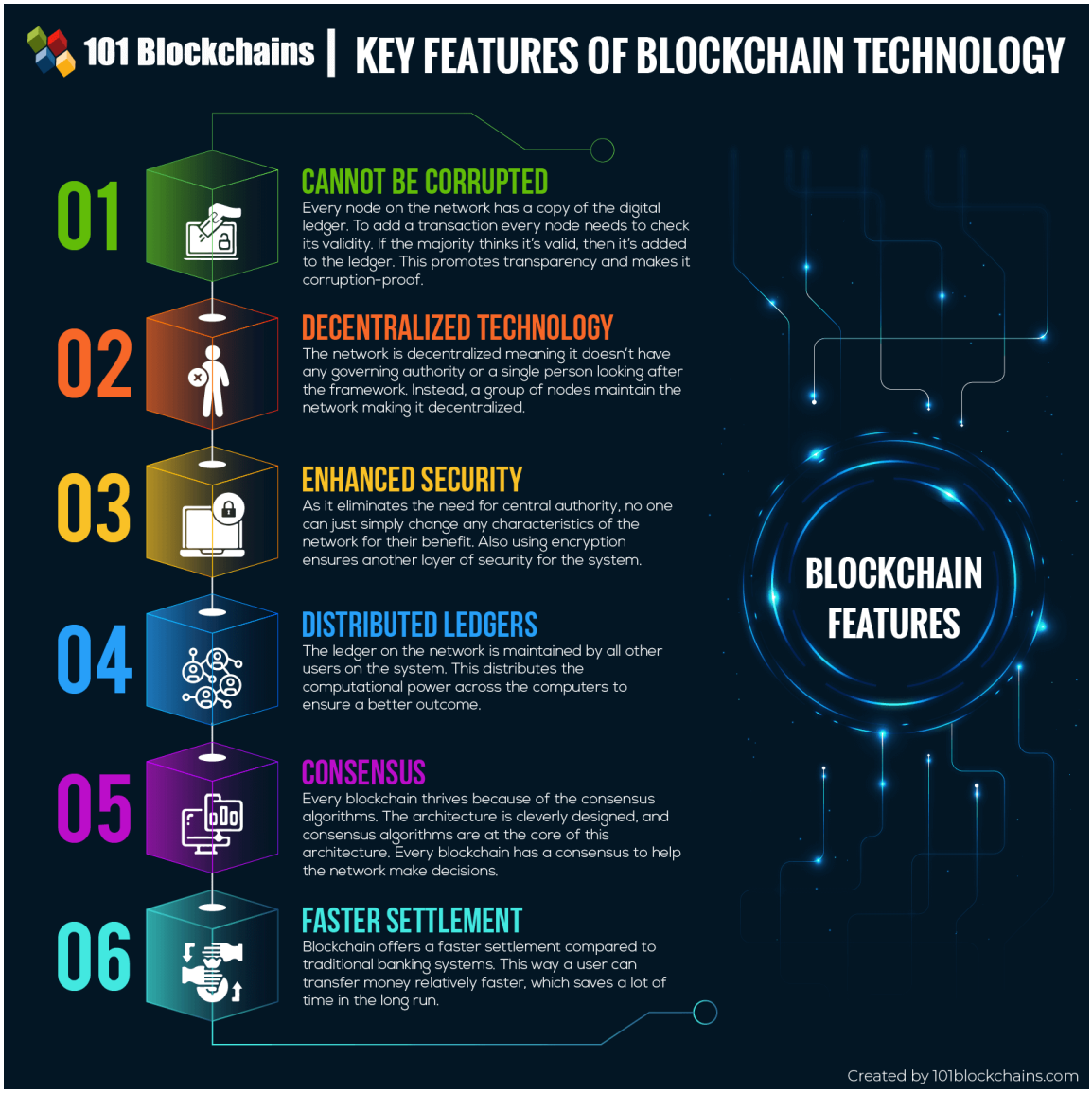


Figure 3: Key features of blockchain technology (Amwar, 2018)

Blockchain can be used in healthcare, logistics and supply chains, education, agriculture, music, the fuel and oil industry, accounting and many other fields. Other sectors where blockchain technology is used are in the insurance industry and government organisations and services (Nawari & Ravindran, 2019). This study focuses on blockchain technology in the accounting profession.

2.2 Blockchain technology and the accounting profession

Blockchain technology is one of the most disruptive emerging technologies, and it seems to have the potential to considerably affect the accounting and auditing fields

(Wang & Kogan, 2018). According to Baron (2017), the possible uses for blockchain technology in accounting and auditing are automated auditing processes, traceable auditing trails, tracking fixed assets ownership, verification of transactions, development of smart contracts, and registry and inventory systems for any asset, varying from raw materials to internet protocol.

Research by Dai, Vasarhelyi, and Zhang (2018), reveals that in future, the typical combination of jobs in the accounting field will change significantly. The accountants will need to acquire new skills when the more standard accounting tasks become fully automated, and the analytic and technical maintenance requirements of the work increase substantially.

The accounting applications in blockchain technology are sometimes referred to as "triple-entry bookkeeping" (Brandon, 2016). In double-entry bookkeeping, each transaction is recorded twice: as a debit and as a credit, while with blockchain technology three entries take place: the debit, the credit, and the cryptographic signature of the transaction (Brandon, 2016). There are also three participants in the transaction: the seller, the buyer, and the blockchain technology network.

According to Faccia and Mosteanu (2019), blockchain's triple-entry accounting systems can be configured to adhere to accounting standards and regulations automatically by utilising smart contracts; they could also automate tax filing. Research by de la Vega et al. (2018), found that peer-to-peer distributed data platforms with trust assured by the utilisation of blockchain enables the registration of verifiable and faithful accounting records utilised. Blockchain will keep a company's financials up-to-date and accurate in real-time and not just once a year.

Table 2 shows how blockchain features can be used in the accounting and auditing profession.

Table 2: Blockchain features used in accounting and auditing (Rao & Pandurangiah, 2018)

No	Blockchain features	Use of Blockchain in Accounting and Auditing
1	**Distributed Ledger**	As blockchain technology is a distributed ledger technology without any central governing authority, it is nearly impossible to hack all the nodes in the blockchain network. Blockchain technology provides a highly secured environment.
2	**Near Real-time updating**	Transactions are recorded in near-real time basis by both buyer and seller. This eliminates the need for reconcilliation.
3	**Digital and Time-Stamped (Hash)**	All the financial transactions are digitally time-stamped using a cryptographic hash, ensuring reliability and authentication in transactions is increased.
4	**Consensus**	Transactions are only updated when there is consensus between participants in the network and each block is associated with a specific participant.
5	**Immutability**	Information written to a blockchain technology cannot be tampered with even by an engineer of the system. This enables greater information security and originality of the recording.

2.3 Empirical studies on blockchain technology and accounting

Smith (2019) conducted a study to analyse some of the implications of how blockchain technology is positioned in the accounting profession, and provided a comparative analysis of how processes will be changed. The finding in this study reveals that accounting work and processes will become highly automated, digitalised and available in real-time. The accounting profession will evolve, and accountants will apply existing competencies to new streams and sets of data. They will also be in a position to interpret this data to management. In future, auditing work will transition to a more forward-looking and advisory role.

Jayasuriya (2019) explored the impact of blockchain technology applications in accounting and corporate governance. The finding in this study reveals that the use of blockchain technology in accounting has excellent potential. However, blockchain technology has several problematic areas, such as voluntary blockchain reporting mechanisms, the possibility of hacking and the initial investment costs of the technology. Great potential lies in the transparency, accuracy of data and the time saved by using blockchain.

McCallig, Robb, and Rohde (2019) conducted a study aimed at developing a design for an information system used in accounting that will improve the representational trustworthiness of financial information reporting. The study found that developments in distributed retention, together with multiparty computation and network analysis, open up ideas for future financial reporting systems. These financial reporting systems will improve the representational trustworthiness of financial reporting in three major aspects. First, the information will be furnished by multiple entities independently of the reporting entity to confirm validity. Second, the financial network and processes will be transparent. Third, the information will be retained on a blockchain that utilises a public and transparent method of recording, and this cannot be amended.

English (2019) explored different technologies affecting specific roles in the accounting field and also explored the timing of implementing these technologies in companies. This study found that blockchain and AI will take over most of the current accounting role because of the automation involved. Companies should not rush to implement but should learn about these technologies and prepare. The high level of automation will mean that accountants do not have to reconcile financial transactions because this will be done accurately and in real-time. Accountants will evolve to finer strategic roles and utilise the insights from their AI tools and robots. Accounting students will need to be taught about all these disruptive technologies, and the curriculum will have to be amended to cater for this.

Appelbaum (2018) conducted studies to answer questions about the implications of blockchain technology for the accounting profession and how this technology could transform the accounting and auditing profession in future. The finding is that blockchain will impact the accounting profession in three ways. First, blockchain will save time on reconciliations as data are confirmed by all parties in real-time and the time saved will enable accountants to concentrate on higher-level advisory services. Second, the accounting function will be expanded as blockchain will ensure that threat reports are reliable and that there is a single source of data: this will result in reduced paperwork. Third, there will be continuous auditing as blockchain-enabled auditing will enhance the effectiveness, efficiency and reliability of the audit evidence collection procedure.

A study conducted by Moll and Yigitbasioglu (2019) reviewed the accounting literature that concentrates on four digital technologies, including blockchain, that have the potential to significantly transform and disrupt the accounting profession. The finding of this study shows that blockchain will improve financial visibility and timely reporting, which will relieve many tasks that accountants do, leading to concerns regarding the profession's legitimacy and the role of accountants in future. Another observation in this study is that more research is required to ascertain the new competencies and skills that accountants may need to understand to remain up-to-date and add value.

Dai (2018) examined the potential impact that disruptive technologies like blockchain will have on both the accounting profession and education in accounting. The finding is that technologies like blockchain technology will disrupt the accounting profession, which will result in a skills shift. The current entry-level jobs that do not require high-level cognitive skills may eventually disappear. The study makes recommendations that accounting bodies that set up the curriculum like AICPA and that set up the CPA exam should focus more on higher-level skills in analytical, critical, and innovative thinking and reduce the emphasis on memorisation and technical application of rules.

Wang and Kogan (2018) examined a design for a blockchain technology-based transaction processing system for accounting, monitoring and fraud prevention. The finding reveals that the connection between accounting and blockchain shows great promise for the improvement in information integrity, lowering transmission cost, increasing the transaction settlement speed, and preventing fraudulent transactions. The system is an innovative design that utilises the advantages of blockchain while prevailing over the key barriers to the adoption of this technology. This finding further confirms prior studies that blockchain technology is secure and is not prone to errors and fraudulent transactions.

Further studies were conducted by Alboaie, Horomnea, Rata and Vaida (2018) to examine an audit method based on a semantic analysis of blockchain technology accounting data in order to ensure resilience to fraudulent use. The finding shows that the audit of future blockchain-based informatics systems will involve both auditors and programmers and will enable the generation of accurate audit scrips. Triple-entry accounting ledgers will boost development by reducing partners' assessment-related costs.

In another study, Dai and Vasarhelyi (2017) examined how blockchain technology could enable real-time, transparent, and verifiable accounting systems. The finding reveals that blockchain technology has the potential to transform current auditing practices, leading to a more accurate and timely automatic assurance system. As blockchain is emerging and rapidly developing, the accounting and assurance applications may be required to be expanded and reconsidered as new algorithms are introduced.

Kokina et al. (2017) investigated blockchain technology and discussed the associated opportunities and limitations of this technology. The finding shows that the nature of accountants' jobs will be significantly affected by blockchain as some tasks will no longer be required. There may be new tasks that this emerging technology will enable accountants to execute.

Tapscott and Tapscott (2017) explored how blockchain technology will transform businesses in terms of creating value, marketing, accounting, and staff incentives and how software will eliminate the need for many management functions. The finding reveals that blockchain will keep a company's financials up-to-date and accurate in real-time and not once a year. Financial statements change from snapshots of the business at one point in time to a transparent, three-dimensional view of the whole business.

2.4 Blockchain challenges

Financial statements change from snapshots of the business at one point to a transparent, three-dimensional view of the whole business (Tapscott, 2017). A study by Ogiela and Majcher (2018) revealed that security threats applicable to blockchain are currently being counter-measured in protocol design and software development. Issues with blockchain's transparency can be overcome by using cross-organisational authentication, such as using a one-way hash chain to substantiate the principle of a one-time password (Huang, 2019).

Other issues with blockchain technology include voluntary blockchain reporting mechanisms and the original investment costs of the technology (Jayasuriya, 2019). As blockchain is emerging and developing rapidly, the accounting and assurance

software may need to be expanded and reconsidered as new algorithms are developed (Dai & Vasarhelyi, 2017).

2.5 The current impact of blockchain technology

The accounting profession stands to be extensively impacted by the deployment of blockchain technology by automating a lot of the current manual tasks that constitute most of the accounting work. For example, current financial accounting requires a double-entry accounting system that is diligently audited within the public domain. While this system ensures verifiability and accuracy, it brings significant labour and time costs, and, under current procedures, it is almost impossible to automate (Augustine et al., 2017).

Using blockchain technology, organisations could directly capture their financial transactions into a joint register that formulates a chain of accounting records. With each transaction verified through blockchain, tampering with or manipulating the recorded accounting data would be almost impossible (Deloitte, 2016). Potentially, this means that all accounting data could be instantly verified electronically, and automated auditing could be enabled with the standardisation of the auditing practice.

Companies have started using blockchain, and some are in the process of testing the technology. The Big Four accounting firms in South Africa; namely, Ernst and Young (EY), PricewaterhouseCoopers (PWC), KPMG, and Deloitte, are leading the way in exploring blockchain applications in accounting. EY and PWC currently accept Bitcoin as a form of payment. KPMG is part of the Wall Street Blockchain Alliance and has also collaborated with Microsoft to develop the Blockchain Nodes Initiative for discovering new blockchain technology applications.

In 2014, Deloitte implemented a blockchain software network known as Rubix. Rubix established a triple-entry accounting system known as PermaRec, which allows Deloitte to record transactions between its clients and thereby increase auditing speed (Jayasuriya, 2019). New technologies will emerge that are currently unheard of, and they will become the leading edge of research in the accounting profession (Chiu, Liu, Muehlmann, & Baldwin, 2019).

2.6 Conclusion of the literature review

From the above literature review, it can be concluded that blockchain technology will massively impact the accounting and auditing profession. This disruptive technology is fast gaining momentum, and more organisations are learning about the benefits of using blockchain technology. The accounting field will be impacted as blockchain will remove most of the manual work currently being done by accountants. The downside (and a concern) is that accountants will lose their jobs because blockchain will automate the accounting processes by using the triple-entry system. This will enable verification to be done immediately, improving transparency as all parties involved in a transaction will have visibility in real-time.

Accountants will no longer have to verify data and spend time checking and reconciling transactions: their roles will change drastically. Accountants will evolve to more strategic roles and utilise the insights from their technologies to make strategic decisions. The students currently studying accounting will need to be equipped with new skills to use technologies, and the curriculum will need to be amended to accommodate changes in the profession. New roles will be created because of digitalisation and accountants will need to upskill themselves to stay employed. The role of auditors will also change, and they will no longer have to trace records and verify documents, but they will be able to undertake more analytical work in terms of analysing risk and audit processes.

The gap that emerged in this study is that the studies available on blockchain technology used in the literature review are mostly theoretical, which highlights a gap for empirical study in this area. Empirical research has its findings based on verification through experiment, experiences, and observations (Vuke, 2012). Theoretical research is research based on an existing theory in a similar field of inquiry and reflects the hypothesis of a study (Adom, Hussein, & Agyem, 2018). More empirical research studies should be undertaken to validate blockchain technology and its use in the accounting profession.

Another gap identified is that there is evidence that the majority of the prior studies are from the West. As such, a study conducted in the emerging economies will provide valuable new insight.

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Introduction

Chapter 2 examined the literature on the findings of scholars in previous studies investigating blockchain technology and its impact on the accounting profession. This chapter looks at the research design that will be used to conduct this research and describes and characterises the target population. The sampling method, the data collection method, the measurement instrument, validity and reliability, ethical issues, study limitation and the techniques that will be used to analyse data are also discussed. The chapter concludes with a summary of the proposed methodology.

3.2 Restating research questions

The primary aim of this study is to explore the impact of blockchain technology on the accounting profession. As a result, the following research questions were addressed:

1. What accounting tasks are currently manual and can be automated with blockchain technology?
2. How will the automation of current accounting tasks by blockchain technology affect the accounting profession?

3.3 Research approach

A mixed method has been selected for this study to get in-depth information from accountants regarding their roles and what should be automated. Although the ultimate goal was to conduct a qualitative study, a mixed method was adopted mainly because of the limited understanding of blockchain technology. The questionnaire made it easier for respondents to answer questions and allowed the researcher to measure the respondents' level of understanding of blockchain technology. According to Zohrabi (2013), the reason that more researchers use the mixed method is that both qualitative and quantitative data can be gathered simultaneously, analysed and interpreted, which can enhance the reliability and validity of the data and their interpretation (Zohrabi, 2013).

The interviews were scheduled with accountants in different roles within a leading multinational logistics and supply chain company in South Africa. The interviews were also conducted with external auditors from the auditing firm, Deloitte South Africa.

3.4 Research design

In this study, a descriptive mixed-method approach was adopted by conducting face-to-face interviews and questionnaires. The advantage of using interviews is the wealth of detail and context that can be noted.

The design allowed the researcher to gain more insight from the participants when sharing their experiences and how they perceive the accounting profession, the manual tasks currently being done and which tasks could be automated to make their jobs easier. One of the advantages of using interviews is that they enable the researcher to ask more detailed questions, and they eliminate the ambiguity in responses. Using interviews enables the researcher to clarify the responses. Questionnaires were used to assess the respondents' level of understanding of blockchain technology.

3.5 Data collection method

The researcher collected data by conducting face-to-face interviews and requesting respondents to complete questionnaires. According to Fisher (2006), interviews are personal and seek to identify the participant’s feelings, emotions, and opinions regarding a particular research subject. The main advantage of using personal interviews is that they provide direct and personal contact between interviewer and interviewee.

Additionally, interviews eliminate non-response rates. Face-to-face interviews enable the researcher to modify the interview questions as and when required, clarifying issues and ensuring that responses are undoubtedly understood by rephrasing and repeating the questions. Interviews also provide insightful data, offer the opportunity to establish rapport with interviewees and assist with exploring and understanding complicated issues (Sekaran & Bougie, 2013).

3.6 Population and sample

3.6.1 Population

The first stage in the sampling process is to define the target population clearly (Taherdoost, 2016). A population is a group of individual persons, items or objects from which samples are gathered for measurement (Fridah, 2002). The frame in this research is accountants in finance departments. The target population consisted of accountants working for a leading multinational logistics and supply chain company in South Africa.

3.6.2 Sample and sampling method

A sample is a part of a population, and it is the entirety of entities in which we have an interest, which is a collection of people, events or objects about which we want to make conclusions (Diamantopoulos & Schlegelmilch, 2000). The sampling techniques were chosen for convenience and purposive nature. The reason for choosing a convenience sampling technique is because the researcher works for the logistics company under discussion and had access to the required participants.

It is purposive as only accountants are required for this research. The researcher works on financial systems, interacts with many accountants and understands the frustrations they encounter with the various manual tasks.

A target sample size of 30 accountants was considered for the study. The minimum was 15 accountants. There were eventually 21 participants.

3.7 The research instrument

The research instrument used was interview questions that were used as a guide for the face-to-face interviews. This questionnaire had all the questions required for this study to provide insightful responses. The questionnaire included both qualitative and quantitative questions.

3.8 Procedure for data collection

Quantitative data

The data collection method used for collecting quantitative data in this study was the questionnaire. Care was taken to cover the objectives of the study in the questions asked. As both the quantitative and qualitative data were collected at the same time, meetings were scheduled on respondents' Outlook calendars, and a boardroom was booked for the duration of the interview. A digital voice recorder was used to record the interviews. Questions for the interview were sent to the respondents prior to the interview to save time in the follow-up face-to-face interviews.

Qualitative data

The primary data collection method adopted for this study was interviews conducted with the identified respondents. Meetings were scheduled on respondents' Outlook calendars, and a boardroom was booked for the duration of the interview. Emails were also sent to participants as a reminder as the date approached.

To accelerate the process, the researcher used a notepad to write notes and a tape recorder to record the interviews. Questions were sent to the respondents before the interview to save time for the follow-up face-to-face interviews.

3.9 Data analysis and interpretation

Quantitative data

Data analysis enables researchers to examine, summarise, and interpret quantitative data fairly to discover the main patterns, causes, and relationships (Stangor, 2007). In this study, descriptive statistics were calculated. Descriptive statistics is a quantitative review that describes the main structures of the collection of data. It is involved with the summary or description of the data gathered for a group of separate units of analysis (Welman & Kruger, 2001). A descriptive focus encompasses the creation of a summarised picture of a sample or population with regard to the key variables being studied (Gray, 2009).

Data presentation in a graphical form may be included. Descriptive analyses and charts were used to describe the data in terms of counts and percentages. Construct scores were calculated, and the descriptive analysis concerning means, minimum and maximum standard deviation is provided.

Qualitative data

The collection of data, organising, arranging and amalgamating into meaningful sequential patterns that can be analysed to draw out reasonable conclusions is an essential part of qualitative research. The researcher can clarify the information collected and harmonise it with the required results of the study (Bogdan & Biklen, 2003). In this process, the researcher broke down the information to estimate similarities by classifying and grouping it into meaningful clusters that could be compared (Yin, 2003).

The analysis of data was done using appropriate software that assisted in coding or grouping the themes together. The written and recorded data were then transcribed into meaningful data for analysis. Primary themes were identified as those stated the most by participants, while secondary themes were those stated next most often. This thematic analysis was influenced by Braun and Clarke's (2006) six-phase guide, which is a valuable framework for conducting thematic analyses, as tabulated below:

Table 3: Braun and Clarke's six-phase framework for doing thematic analysis

Step 1: Become familiar with the data	Step 4: Review Themes
Step 2: General Initial Codes	Step 5: Define Themes
Step 3: Search for Themes	Step 6: Write-up

3.10 Limitations of the study

Due to the limited time available to conduct the study, and limited access to accountants, the sample for the study was taken from a single company in a specific industry. Another limitation the researcher discovered is the small sample size for the quantitative section of the study. The study was initially qualitative, and due to the accountants' lack of awareness on blockchain technology and the nature of technical

questions, the researcher opted to include quantitative questions to make the method of study a mixed method. The researcher would have preferred using a larger sample size for the quantitative questions.

3.11 Validity and reliability

Validity refers to how effectively the research model explores, first, what it intends to do, and, second, to what extent the researcher obtained access to the source's meaning and knowledge. Reliability refers to the stability and consistency of the measurement procedure (Lee, 1999).

Quantitative validity and reliability

In this study, the questionnaire content validity was tested with a pilot study and the validity was verified with the supervisor before the full-scale research was conducted.

A Cronbach's Alpha coefficient test was performed to test the reliability of scales in the questionnaire.

Qualitative validity and reliability

A pilot study was conducted to improve validity, and the validity was verified with the supervisor before the full-scale research was conducted.

3.11.1 External validity

External validity is the equivalent of Transferability in a qualitative research method. Transferability refers to a study's potential to be valuable across a variety of situations or contexts (Tracy, 2010).

3.11.2 Internal validity

Internal validity is the equivalent of Credibility in a qualitative research method. Credibility refers to the trustworthiness, plausibility, and verisimilitude of the research output (Tracy, 2010).

3.11.3 Reliability

For Reliability, a triangulation technique was used. In other words, data were collected via interviews, and document analysis was utilised to support and verify the reliability of the data.

3.12 Trustworthiness of the research study

According to Lincoln and Guba (1985), the standard constructs of the conventional positivist research paradigm, such as external validity, internal validity, objectivity and reliability, are not suitable for a naturalistic or qualitative inquiry. In support of this perspective, Marshall and Rossman (1989) described the validity of a qualitative research project as its "trustworthiness".

Table 4 describes how the credibility, transferability, dependability and confirmability of the study were considered to improve the trustworthiness of the research.

Table 4: Trustworthiness of the study

Characteristic	Description	Application in this study
Credibility	Cautious selection of the setting, population and theoretical framework. An in-depth description embedded with information. Consultant credibility.	The paradigm perspective taken for this study needs to be clearly explained and referred to in the findings, which need to be embedded in the information from the interviews. The experience and qualification of the researcher need to be evaluated.
Transferability	The clarity of the theoretical parameters of the research is relevant.	The research questions and research aims need to be clear. Discourse analysis as an analytical model enhances transferability of findings.
Dependability	The researcher attempts to explain the evolving conditions in the phenomenon studied. Consideration is given to the researcher, the participants, the context and the instrument used for measurement.	The background for this study and the description of theory in the field of blockchain technology needs to explain the changing conditions in the phenomenon studied.
Confirmability	Objectivity in the sense that the findings will be confirmed by another human being.	Findings from the literature review and data of the listening groups need to be shared and confirmed by another human being.

3.13 Ethical considerations

Whenever humankind or other creatures that have a potential to think, feel and experience psychological or physical discomfort are the focus of an investigation, then the ethical implications of what the researcher considers undertaking must be

examined very strictly (Leedy & Ormrod 2005). Therefore, the ethical considerations section is meant to provide a detailed description of the actions the researcher has performed to ensure that the study complies with ethical principles (Hofstee 2011).

Research ethics exceeds the protection of human beings and includes elements such as deception in research, consent to use material that is copyrighted in the research, consent to use unpublished instruments, including honesty with professional colleagues. The honesty with colleagues involves reporting the findings in a comprehensive and honest manner, without distorting the information gathered or deliberately deceiving others about the nature of the findings (Leedy & Ormrod, 2005).

In this study, the following aspects will be addressed:

- The researcher explained the purpose of the study to all respondents and requested that they sign an "Informed Consent" form.
- The researcher did not mention any of the respondents by name or any identifiable naming conversion or pattern. In other words, respondents were named as Participant 1, Participant 2, Participant 3, and so on.
- A Study Permission Request Process was done in line with the requirements of the university.
- The researcher signed the plagiarism declaration form, stating that the researcher will acknowledge other researchers where necessary.
- The university granted the ethical research clearance.

3.14 Consistency matrix

Table 5: Consistency matrix

Research problem: Identify manual tasks in the accounting profession and examine how blockchain technology can enable tasks to be automated, ensuring high accuracy and quick verification of financial information					
Sub-problem	**Literature review**	**Research questions**	**Source of data**	**Type of data**	**Analysis**
Examine the current manual tasks currently being done by accountants	(Augustine, 2017).	What tasks are currently manual and can possibly be automated?	Respondents in semi-structured interviews	Qualitative data	Data reduction Data display Conclusion Drawing/Verification
Examine how blockchain technology will affect accounting jobs	Alboaie (2018) Dai and Vasarhelyi (2017) Kokina et al (2017) Wang and Kogan (2018)	How will current jobs be affected by blockchain technology in particular?	Respondents in semi-structured interviews	Qualitative data	Data reduction Data display Conclusion Drawing/Verification

CHAPTER 4. PRESENTATION OF RESULTS AND FINDINGS

4.1 Introduction

Chapter 4 comprises the analysis, presentation and interpretation of the results and findings of this study. The findings relate to the research questions that guided the study. The data were analysed, and the results were reported in line with the research methodology in Chapter 3 of this report. This chapter begins by providing a description of the research sample and details regarding the preliminary examination and clean-up of the data before analysis.

An analysis of the demographics of the respondents with a discussion of some key observations follows.

An analysis of reliability and internal consistency was performed on the data with appropriate tables displaying the resultant analyses and a discussion around the appropriate action to be taken.

The figures and data tables were presented for descriptive analysis purposes and to graphically evaluate potential relationships between variables of interest.

4.2 The sample

The sample was selected on a convenience and purposive basis according to the criteria set out in the previous chapter. A total of 21 respondents participated in the study. Interviews were conducted with 19 respondents from a leading multinational logistics and supply chain company in South Africa and two respondents from Deloitte South Africa. All respondents are accountants working in different departments with different areas of specialisation.

4.3 Demographic profile of respondents

The demographic details of the sample were analysed, and the descriptive statistics are reported as follows:

The majority (66.7%) of the respondents were female with 42.9% of the respondents certified as chartered accountants CA (SA), as indicated in Figure 6 and Figure 9 respectively.

All the respondents have a bachelor's degree with 42.9% having an honour's degree as their highest qualification and 19% having a master's degree as their highest qualification (Figure 8).

The majority of respondents (42.9%) are White, followed by Indians (33.3%), Blacks (14.3%) and Coloureds (9.5%). More than a third (38.1%) of the respondents specialise in corporate reporting, followed by 33.3% specialising in financial management and 19% specialising in tax. There were only two respondents who specialise in audit and assurance (9.5%).

These descriptive statistics are illustrated in the stacked bar graph in Figure 4.

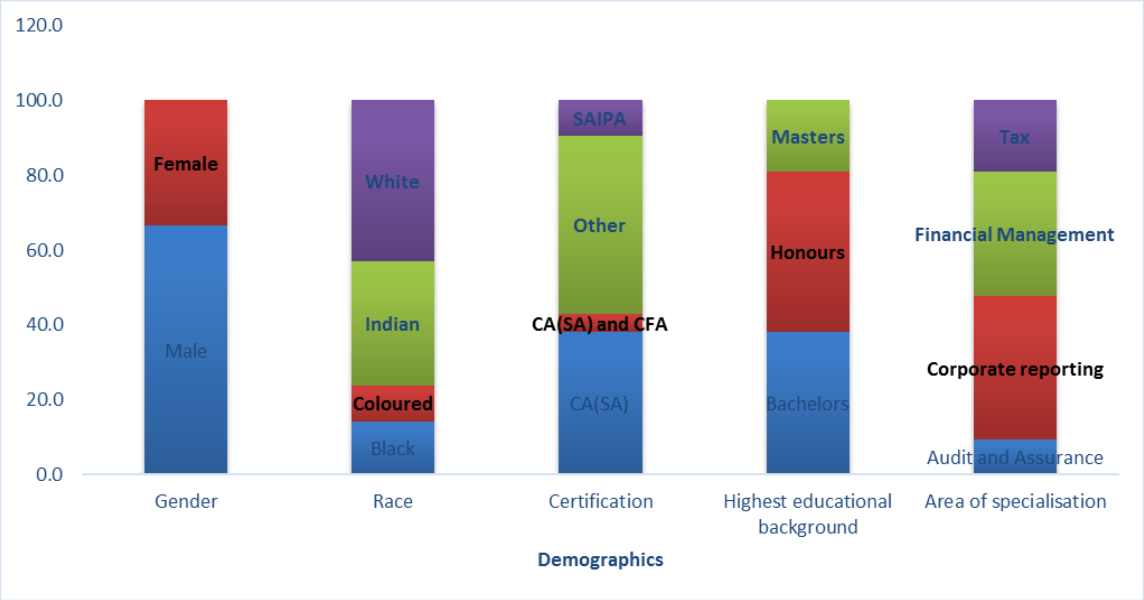


Figure 4: Combined respondent demographics

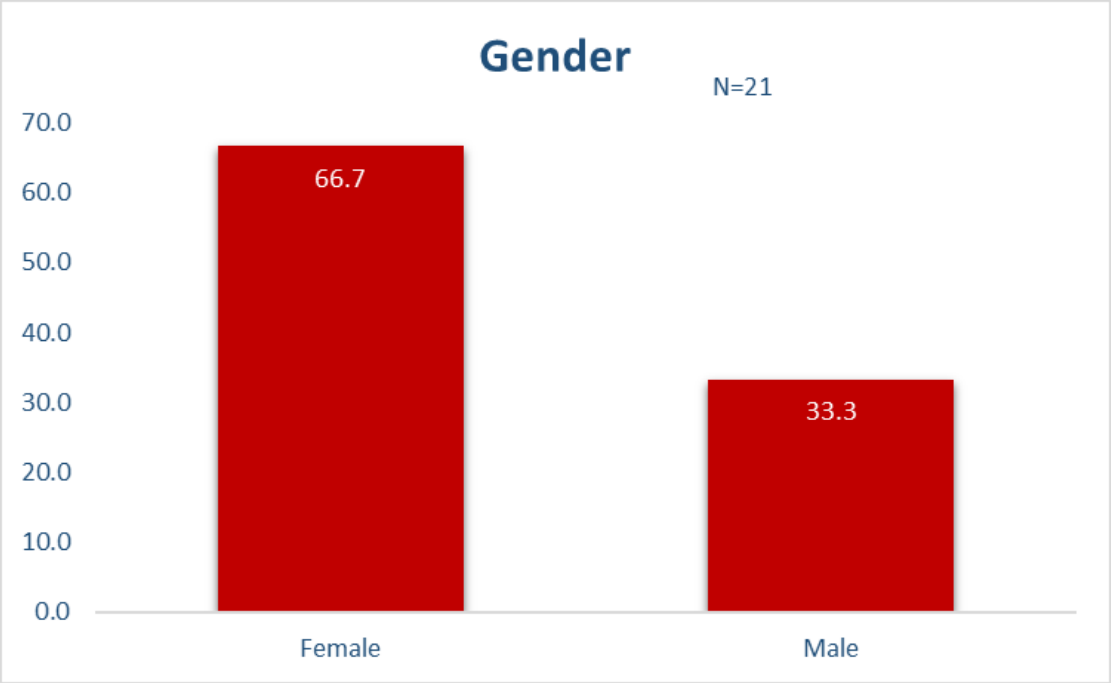


Figure 5: Gender of respondents

Figure 5 depicts the gender of the respondents. There were almost double the number of female respondents (66.7%) compared with 33.3% male respondents.

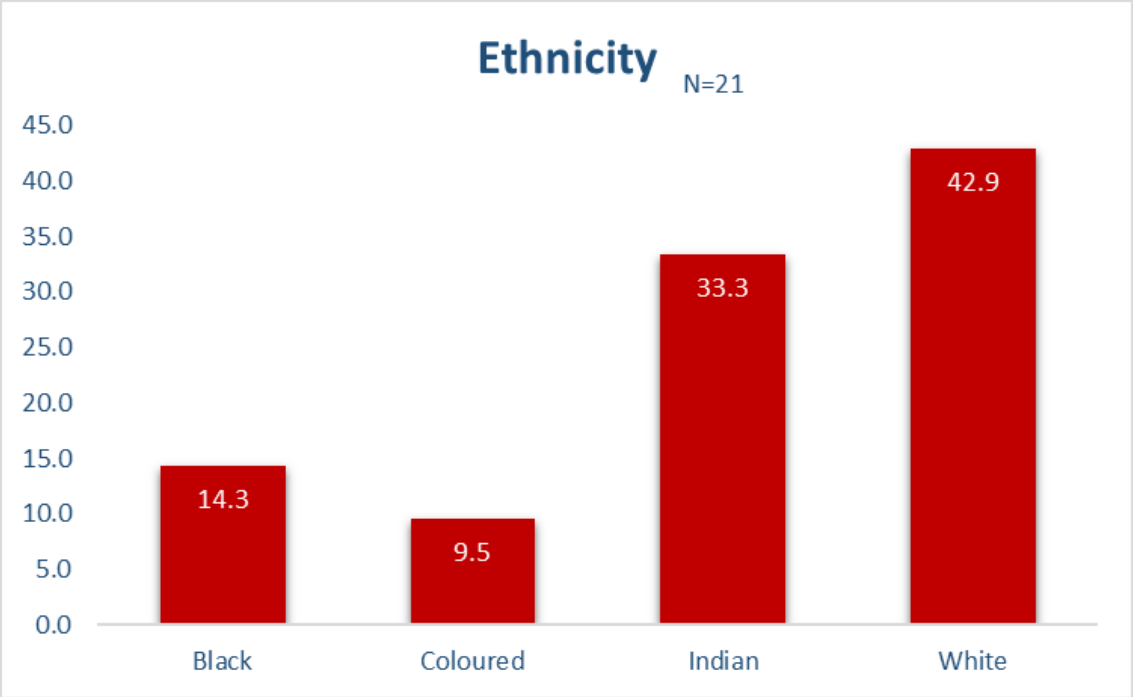


Figure 6: Ethnicity of respondents

Figure 6 above depicts the ethnicity of the respondents. The figure indicates that 42.9% of the respondents are White. This was followed by Indians (33.3%), Blacks (14.3%) and Coloureds (9.5%).

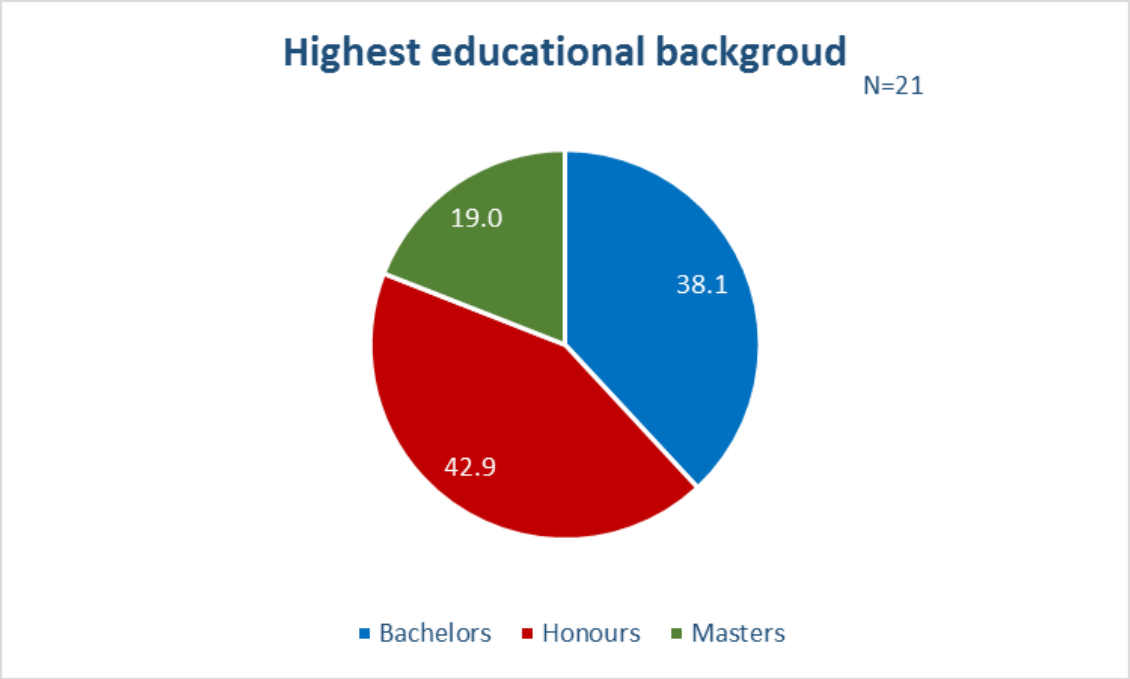


Figure 7: Educational level of respondents

Figure 7 depicts the educational level of the respondents. The figure indicates that more than 61.9% of the respondents have a post-graduate degree (honours degree and master's degree); 38.1% of the respondents have a bachelor's degree.

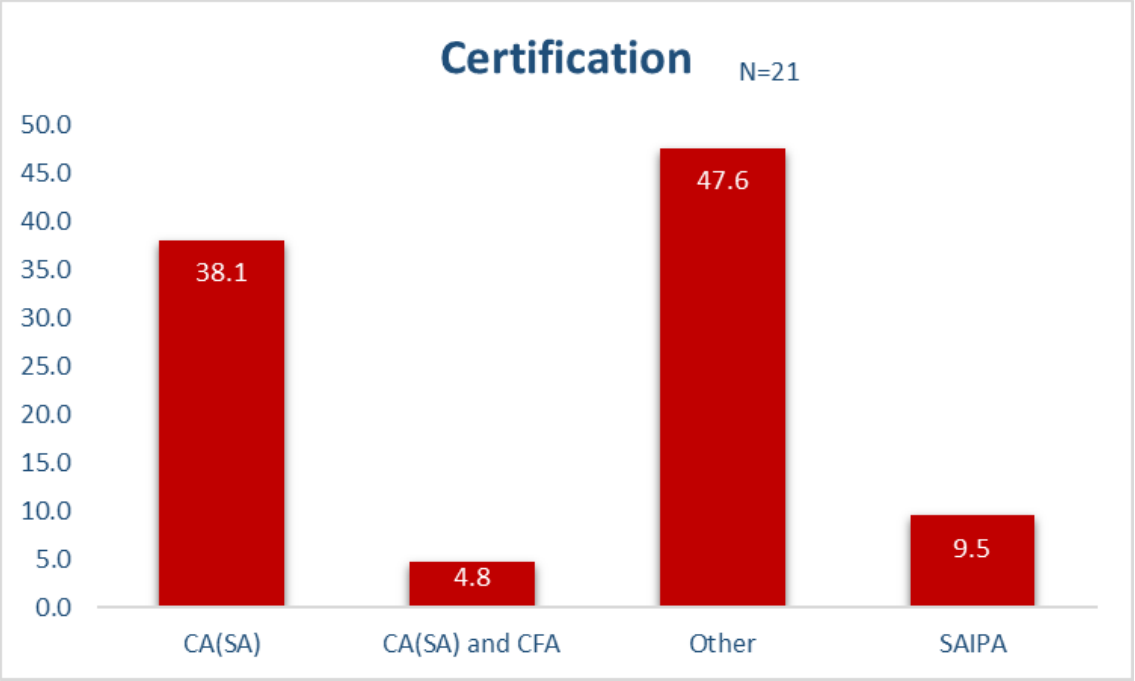


Figure 8: Certifications

Figure 8 depicts the educational level of the respondents. The figure indicates that 38.1% are certified chartered accountants (CA [SA]) and 47.6% fall into the category Other. Most of the respondents in Other have bachelor's degrees and honour's degrees, but they have not qualified as chartered accounts.

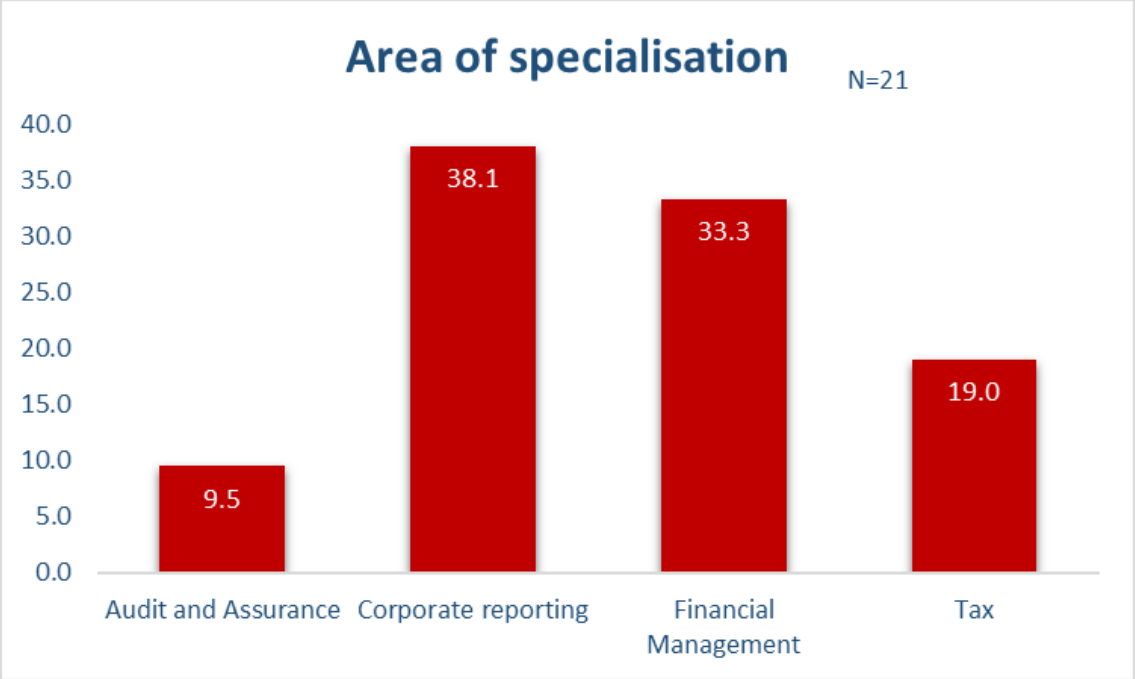


Figure 9: Area of specialisation

Figure 9 depicts the area of specialisation of the respondents. The figure indicates that 38.1% of the respondents specialise in corporate reporting, followed by 33.3% specialising in financial management and 19% specialising in tax. There were only two respondents who specialise in audit and assurance (9.5%).

4.4 Results – quantitative

Frequency distributions for all the questions (Likert Scale items) included in the questionnaire were computed. The results were compared to the original questionnaire. This exercise was performed to ensure that the results of the survey were in line with the questionnaire specifications. There were no errors or omissions identified in the data. The frequency results are indicated in detail in Appendix E.

4.4.1 Internal consistency reliability of scales

The first Likert Scale question (see Appendix C), which was in Part 2 of the questionnaire, was designed to find the level of awareness about blockchain technology.

The next ten Likert Scale questions (see Appendix C) were in Part 3 of the questionnaire and were designed to determine the likelihood that blockchain technology could impact the accounting profession.

The next ten Likert Scale questions (see Appendix C) were in Part 4 of the questionnaire, and these examined the effect of Perceived Usefulness, Perceived Use and the Technology Task Fit on Behaviour Intention to use blockchain technology.

Questions 1 to 3 of Part 4 were on Behaviour Intention, Questions 4 and 5 of Part 4 were on Perceived Usefulness, Questions 6 and 7 were on Perceived Ease of Use, and Questions 8 to 10 were on Technology Task Fit.

Cronbach's Alpha coefficients of the constructs are detailed in Table 6 below:

Table 6: Cronbach's Alpha and inter-correlation of the constructs

Construct	Cronbach's Alpha	N of Items
Scale: Blockchain technology's Impact On The Accounting Profession	0.66	10
Scale: Behavioural Intention	0.70	3
Scale: Perceived Usefulness	0.39	2
Scale: Perceived Ease Of Use	-0.41	2
Scale: Technology Task Fit	0.75	3

A Cronbach's Alpha coefficient in excess of 0.70 is a sufficiently strong measurement of internal consistency (Cooper & Schindler, 2008). Blockchain Technology's Impact on the Accounting Profession scale has a Cronbach's Alpha of 0.66, which is slightly below the accepted level of 0.70.

Behavioural Intention shows a calculated Cronbach's Alpha of 0.70, which shows a strong level of internal consistency.

Perceived Usefulness shows a calculated Cronbach's Alpha of 0.39, which is substantially lower than the accepted level of 0.70. The Cronbach's Alpha coefficient is not only dependent on the level of the correlations among components, but also on the number of components in the scale. This means that the lower reliability of this scale may be partly explained by its shorter length as this scale is composed of two questions compared to the number of questions asked for blockchain technology's impact on the accounting profession (10 questions) and behavioural intention (three questions).

Perceived Ease of Use shows a calculated Cronbach's Alpha of -0.41, which shows a very low level of internal consistency. The value is negative owing to a negative average covariance among items: this violates reliability model assumptions. The length is shorter as this scale is composed of two questions compared to the number of questions asked for blockchain technology's impact on the accounting profession (10 questions) and behavioural intention (three questions), which may explain the low reliability of the scale.

Technological Task Fit shows a calculated Cronbach's Alpha of 0.75 that shows a very strong level of internal consistency.

4.4.2 Statistical test results

The questions contained in the questionnaire (Appendix C) were asked using a 5-point Likert Scale.

The 5-point Likert Scale for the first question indicated 1= Not at all Aware; 2= Slightly Aware; 3= Somewhat Aware; 4= Moderately Aware and 5= Strongly Aware.

The 5-point Likert Scale for the next ten questions indicated 1= Extremely Unlikely; 2= Unlikely; 3= Neutral; 4= Likely and 5= Extremely Likely.

The 5-point Likert Scale for the following three questions had 1= Definitely Wouldn't Use; 2= Wouldn't Use; 3= Might Use; 4= Probably Would Use, and 5= Definitely Would Use.

The 5-point Likert Scale for the last seven questions indicated 1= Strongly Disagree; 2= Disagree; 3= Neutral; 4= Agree and 5= Strongly Agree.

An analysis of the individual items reflecting the constructs reveals the following:

- **Blockchain awareness** – this is the only question in Part 2 of the questionnaire, and it had a very low mean of 2.38, which was the lowest mean across all questions; this was below the Likert Scale midpoint of 2.5.
- **Blockchain's impact on the accounting profession** – all means in Part 3 of the questionnaire were above the Likert Scale midpoint of 2.5. The lowest mean was the mean response for Question 7 at 3.67, and the highest was the mean response for Question 10 at 4.48.
- **Behaviour Intention, Perceived Usefulness, Perceived Ease of Use, and Technology Task Fit** – all means in Part 4 of the questionnaire were above the Likert Scale midpoint of 2.5. The lowest was the mean response for Question 7 at 2.76, and the highest was the mean response for Question 9 at 4.33.

Descriptive statistics of the questions included in the questionnaire are outlined in Table 7.

Table 7: Individual questions with Means and Standard Deviations

Reseach Questions	N	Mean	Standard Deviation
Blockchain awareness	21	2.38	1.284
Impact on Accounting Profession			
1. Blockchain-based accounting will reduce the auditing costs and time.	21	4.10	1.044
2. Simplify the procedures in the accounting data verification by using blockchain-based accounting technology.	21	4.00	0.548
3. Blockchain plays a pivotal role for development to become the “system of systems" or “journal of journals”.	21	3.90	0.539
4. Blockchain will be programmed so that unusual patterns in transactions can be checked immediately.	21	4.38	0.590
5. Blockchain will be able to provide a real-time alerting schema to detect fraud.	21	3.95	0.865
6. Blockchain can increase the operational efficiency of the business.	21	4.29	0.561
7. A digital currency index will be the key to transparency in cryptocurrency transactions.	21	3.67	0.658
8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants.	21	4.14	0.793
9. Many leading organisations consider digital transformation as a part of their strategic goals.	21	4.38	0.865
10. Technology disruption is evolving due to employee and customer expectations, values and behaviour.	21	4.48	0.512
Behaviour Intention			
1. I intend to use blockchain technology in accounting and/or other business processes.	21	4.05	0.498
2. I am hoping to use blockchain technology in accounting and/or other business processes.	21	4.19	0.602
3. I will continue to use blockchain technology in accounting and/or other business processes.	21	4.00	0.707
Perceived Usefulness			
4. Blockchain technology is the next-generation business process improvement software.	21	4.14	0.655
5. Blockchain intends to improve the business processes that occur between companies, radically lowering the “cost of trust”.	21	4.05	0.590
Perceived Ease of Use			
6. Blockchain is a special business process that makes work more efficient and effective.	21	4.29	0.561
7. Transactions submitted to a public ledger do not need third-party validation.	21	2.76	1.091
Technology Task Fit			
8. Blockchain-based accounting will greatly reduce time and costs of performing auditing.	21	4.24	0.768
9. Use of blockchain greatly simplifies integrity verification procedures.	21	4.33	0.730
10. Blockchain enables a real-time fraud detection scheme.	21	3.95	0.805

The analysis of the individual results in Table 7 indicates that accountants have a limited understanding of blockchain technology; this can be seen from the low mean of 2.38. Accountants feel that transactions submitted to a public ledger require a third validation, indicated by the mean of 2.76. The majority of accountants believe that blockchain technology will be programmed so that unusual patterns in transactions can be checked immediately, supported by the mean of 4.38. The highest mean of 4.48 indicates that accountants believe that technology disruption is evolving due to employee and customer expectations, values and behaviour.

4.4.3 Descriptive results

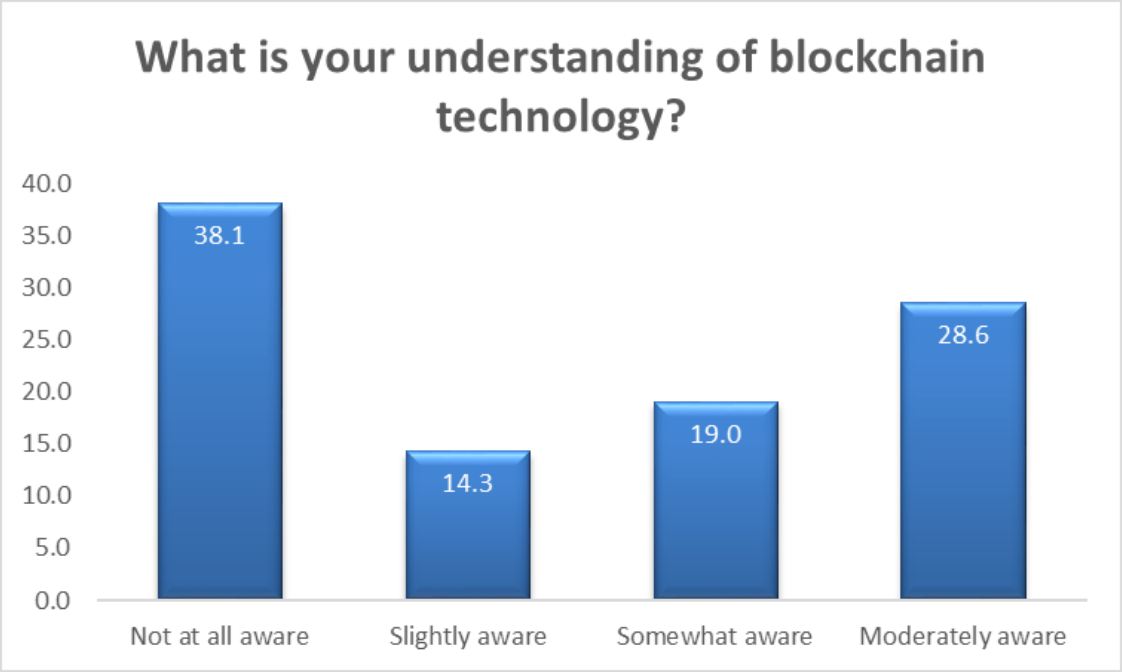


Figure 10: What is your understanding of blockchain technology?

Figure 10 depicts the accountant's understanding of blockchain technology. The figure indicates that 38.1% of the respondents are not at all Aware, followed by 28.6% moderately Aware, followed by 19% somewhat Aware and 14.3% slightly Aware. The mean of the sub-construct "understanding of blockchain technology" was 2.38, with a standard deviation of 1.284. Most accountants have limited knowledge of blockchain technology.

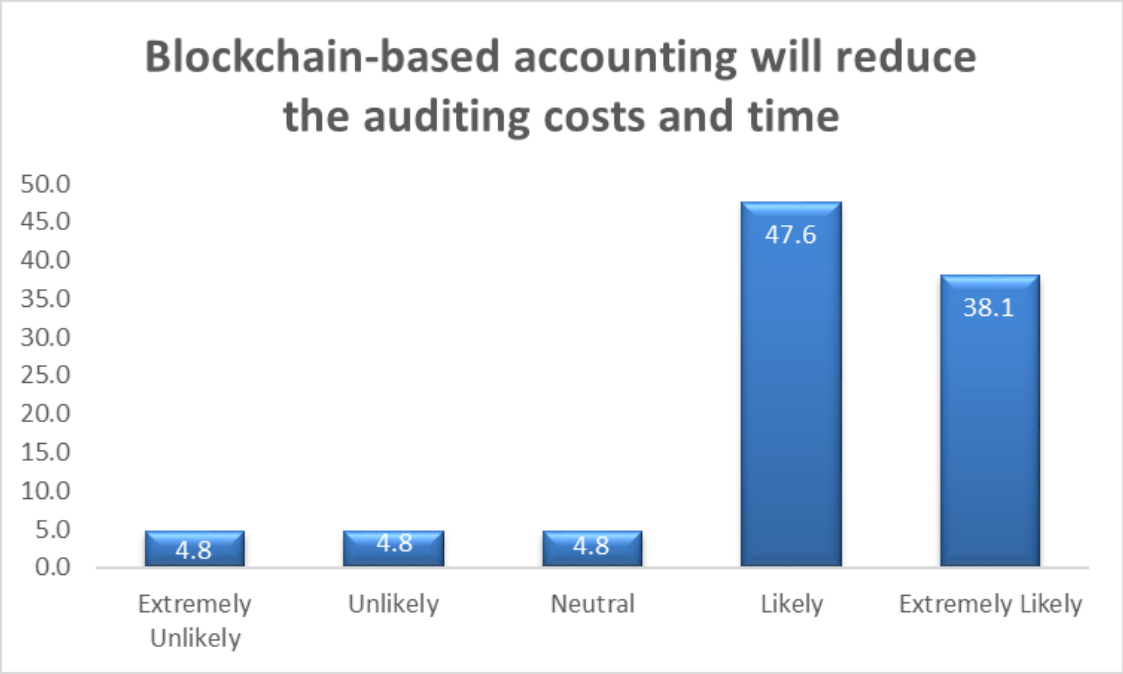


Figure 11: Blockchain-based accounting will reduce the auditing costs and time

Figure 11 illustrates that blockchain-based accounting will reduce auditing costs and time. Most respondents (47.6%) indicated that it is likely that blockchain-based accounting will reduce auditing costs and time; 38.1% of respondents indicated that it is extremely likely; 4.8% indicated being neutral; 4.8% indicated unlikely, and 4.8% indicated extremely likely and believed that blockchain-based accounting would reduce the auditing costs and time. The mean of the sub-construct "blockchain-based accounting" will significantly reduce time and costs of performing auditing was 4.10 with a standard deviation of 1.044.

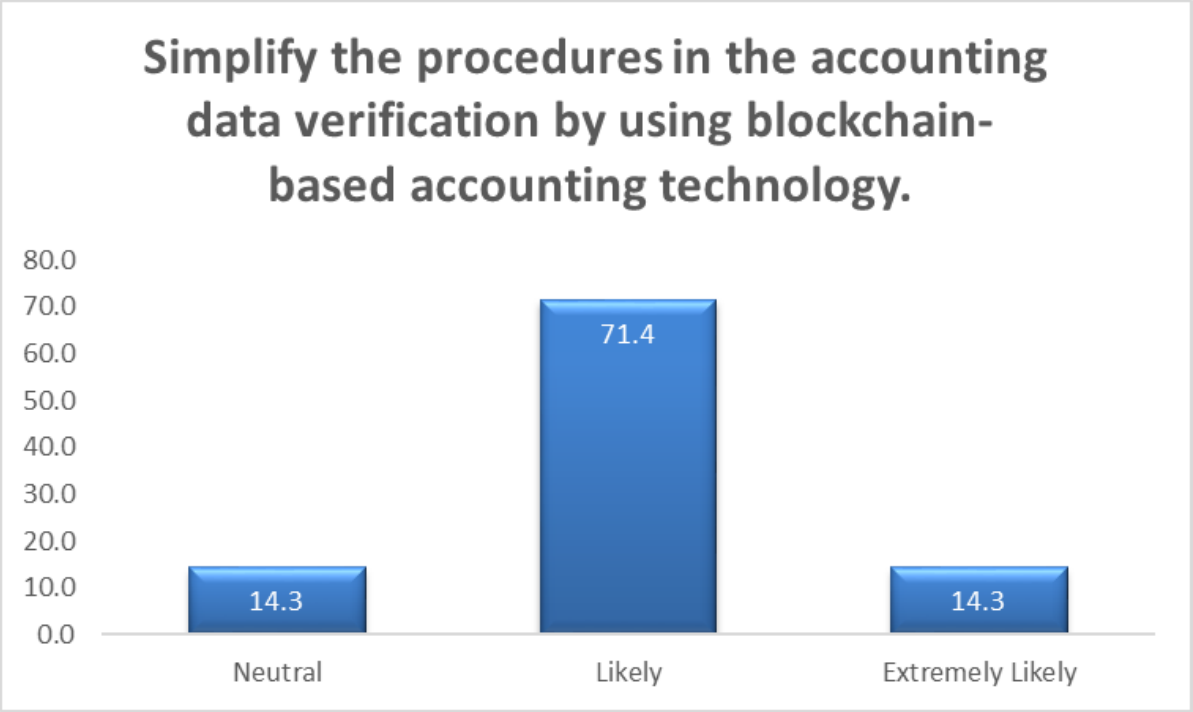


Figure 12: Simplify the procedures in the accounting data verification by using blockchain-based accounting technology

Figure 12 illustrates that procedures in the accounting data verification will be simplified by using blockchain technology. Most respondents (71.4%) indicated that this is likely, followed by 14.3% of respondents who indicated that it is extremely likely, with 14.3% indicated as neutral. The mean of the sub-construct "simplification of the procedures in the accounting data verification by using blockchain technology" was 4.00, with a standard deviation of 0.548.

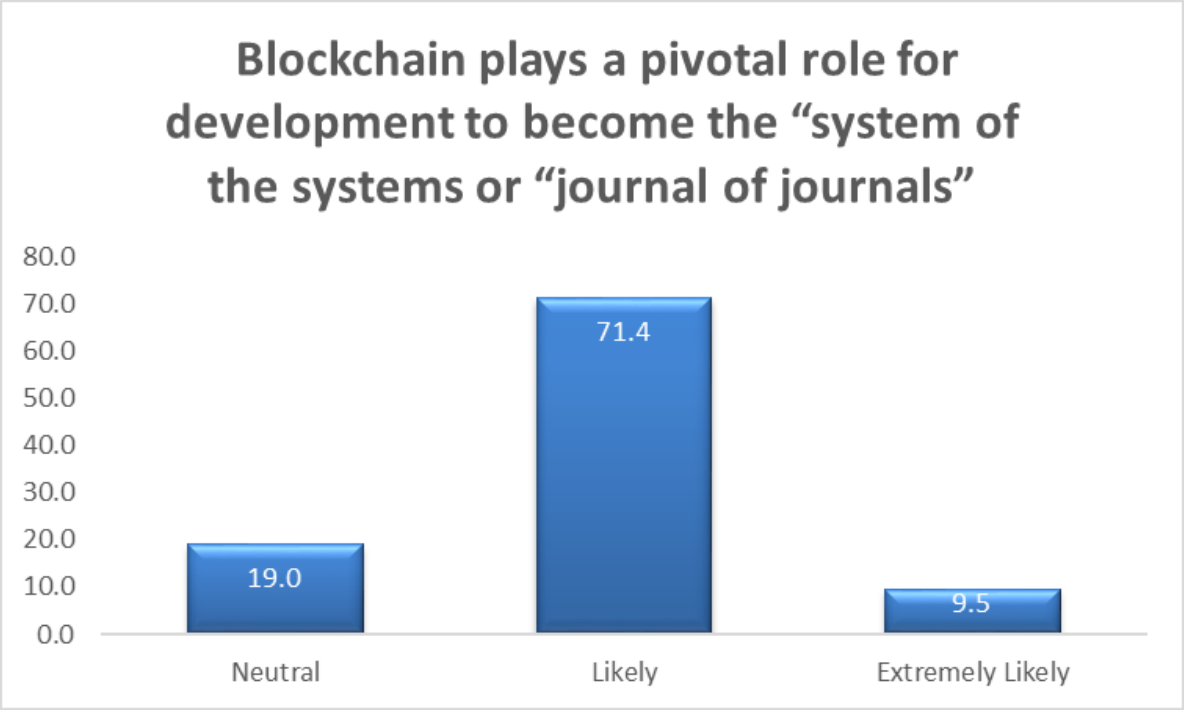


Figure 13: Blockchain plays a pivotal role in the development to become the "system of systems" or "journal of journals".

Figure 13 illustrates that blockchain plays a pivotal role in the development to become the "system of systems" or "journal of journals". Most respondents (52.4%) indicated that this is likely, followed by 42.9% of respondents who indicated that it is extremely likely, 4.8% were neutral. The mean of the sub-construct "blockchain plays a pivotal role in the development to become the 'system of systems' or 'journal of journals'" was 3.90 with a standard deviation of 0.539.

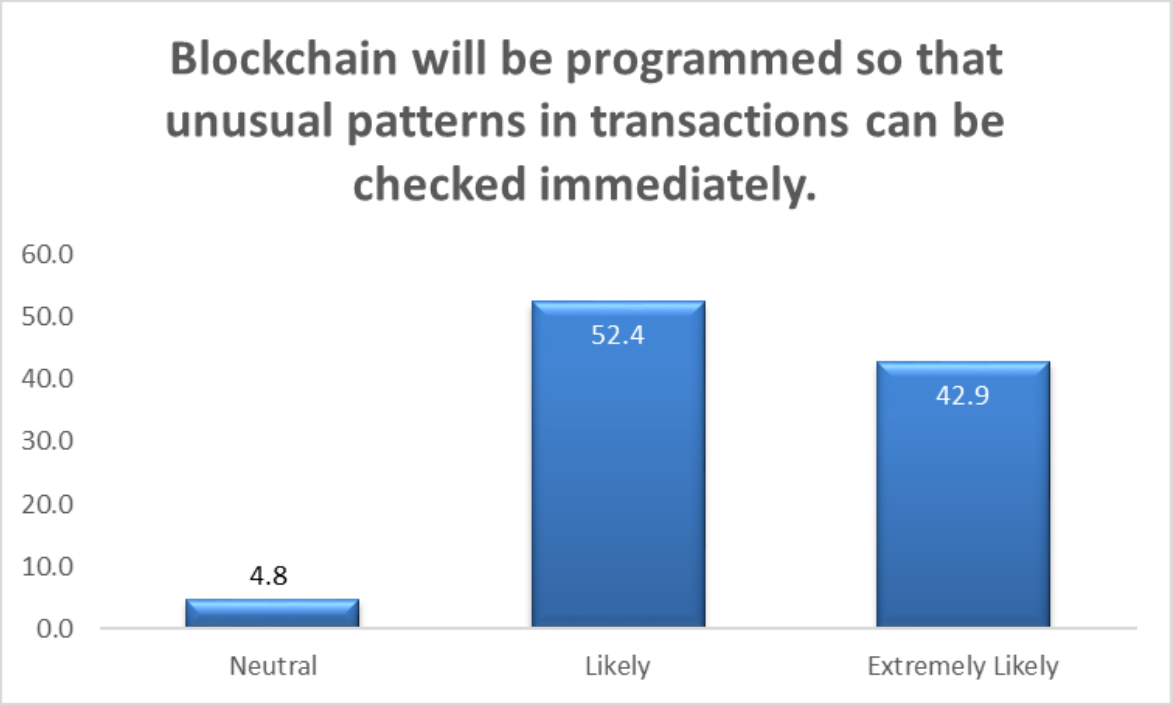


Figure 14: Blockchain will be programmed so that unusual patterns in transactions can be checked immediately

Figure 14 illustrates that blockchain will be programmed so that unusual patterns in transactions can be checked immediately. Most respondents (52.4%) indicated that they believe that this is likely, followed by 42.9% of respondents who indicated that it is extremely likely, 4.8% indicated neutral. The mean of the sub-construct "blockchain will be programmed so that unusual patterns in transactions can be checked immediately" was 4.38 with a standard deviation of 0.590.

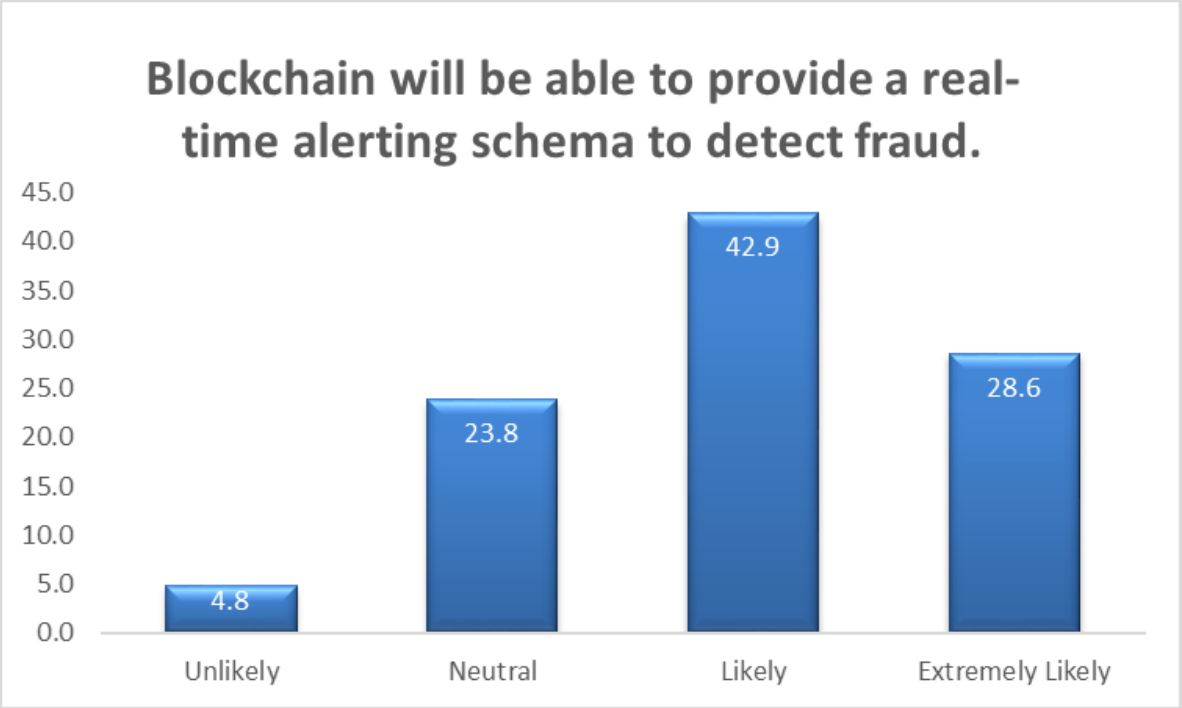


Figure 15: Blockchain will be able to provide a real-time alerting schema to detect fraud

Figure 15 illustrates that blockchain will be able to provide a real-time alerting schema to detect fraud. Most respondents (42.9%) indicated that they believe this is likely, followed by 28.6% of respondents who indicated that it is extremely likely, followed by 23.8% who were neutral, 4.8% indicated unlikely. The mean of the sub-construct "blockchain will be able to provide a real-time alerting schema to detect fraud" was 3.95 with a standard deviation of 0.865.

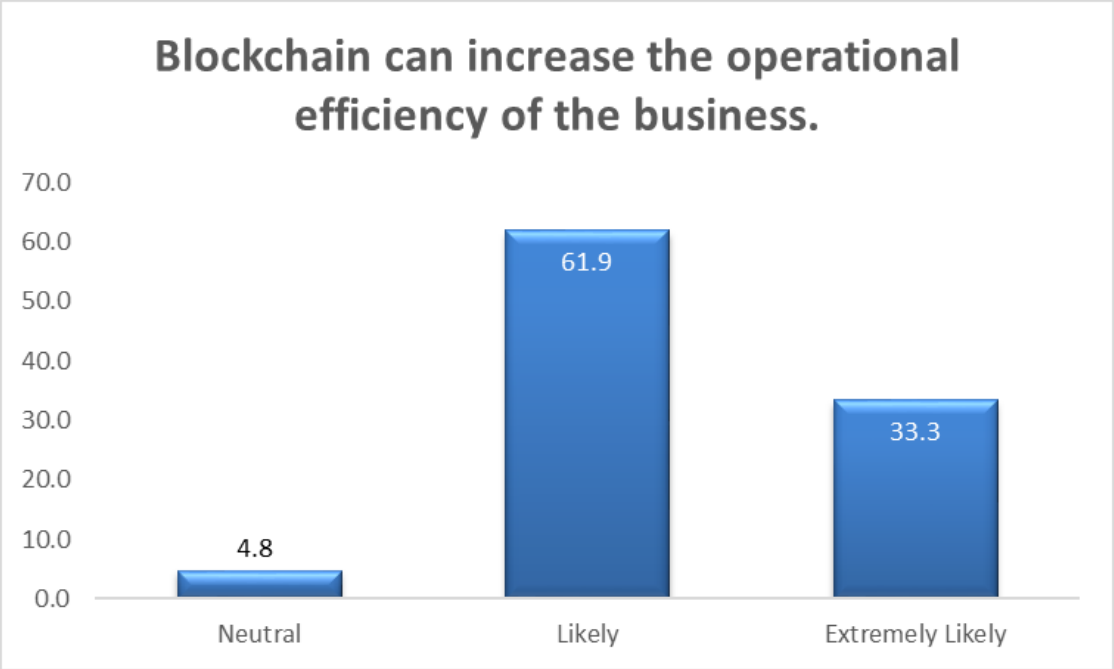


Figure 16: Blockchain can increase the operational efficiency of the business

Figure 16 illustrates that blockchain can increase the operational efficiency of the business. Most respondents (61.9%) indicated that this is likely, followed by 33.3% of respondents who indicated that it is extremely likely, and 4.8% indicated being neutral. The mean of the sub-construct "blockchain can increase the operational efficiency of the business" was 4.29, with a standard deviation of 0.561.

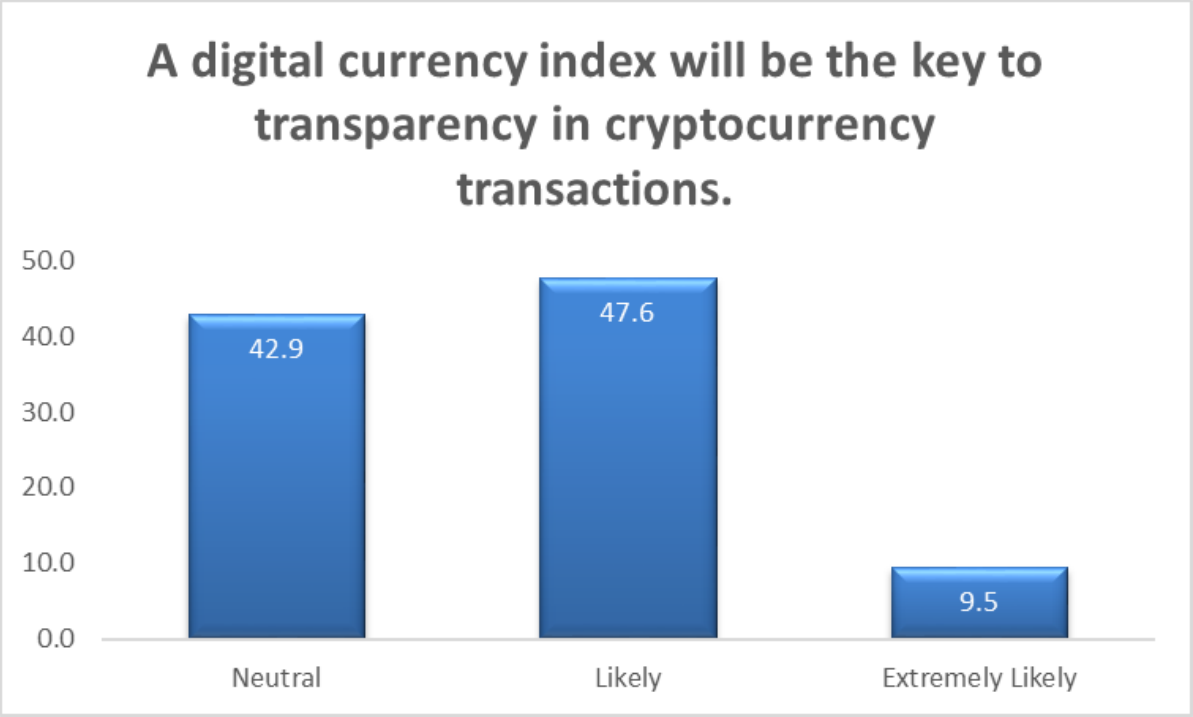


Figure 17: A digital currency index will be key to transparency in cryptocurrency transactions

Figure 17 illustrates that a digital currency index will be key to transparency in cryptocurrency transactions. Most respondents (47.6%) indicated that they believe this is likely, followed by 42.9% of respondents who indicated neutral, 9.5% indicated extremely likely. The mean of the sub-construct "digital currency index will be key to transparency in cryptocurrency transactions" was 3.67, with a standard deviation of 0.658.

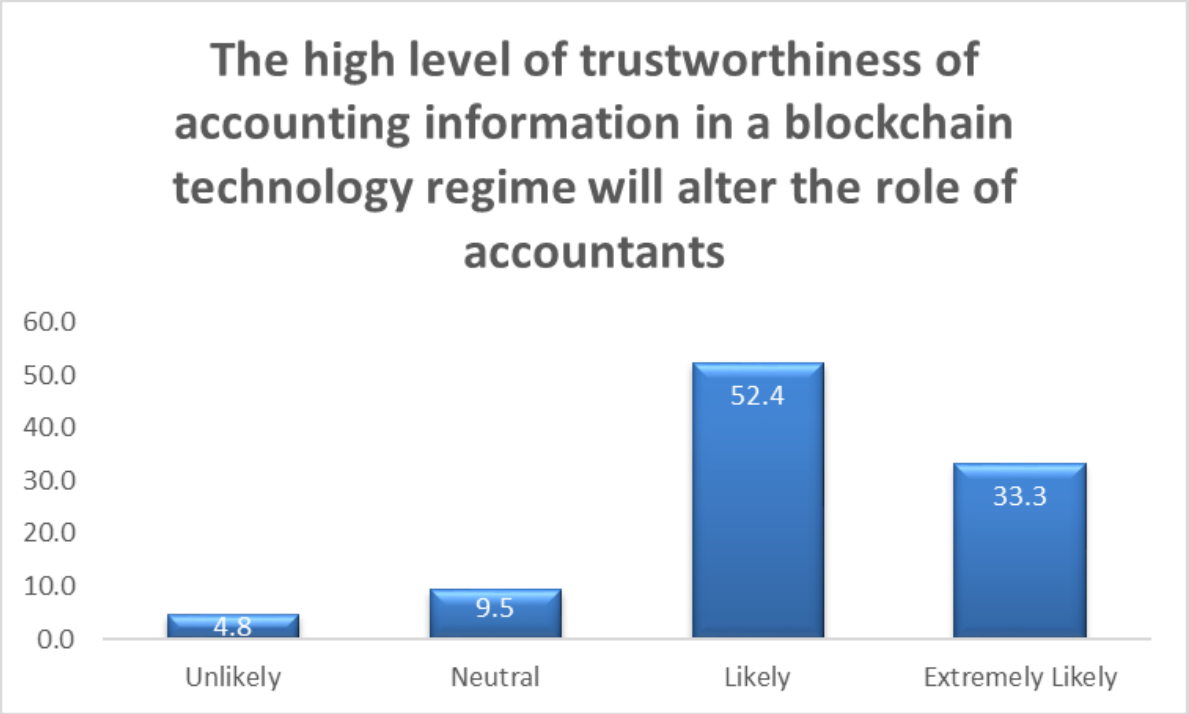


Figure 18: The high level of trustworthiness of accounting information in a blockchain technology regime will alter the role of accountants

Figure 18 illustrates that the high level of trustworthiness of accounting information in a blockchain technology regime will alter the role of accountants. Most respondents (52.4%) indicated that this is likely, followed by 33.3% of respondents who indicated that it is extremely likely, 9.5% were neutral, and 4.8% indicated unlikely. The mean of the sub-construct "the high level of trustworthiness of accounting information in a blockchain technology regime will alter the role of accountants" was 4.14 with a standard deviation of 0.793.

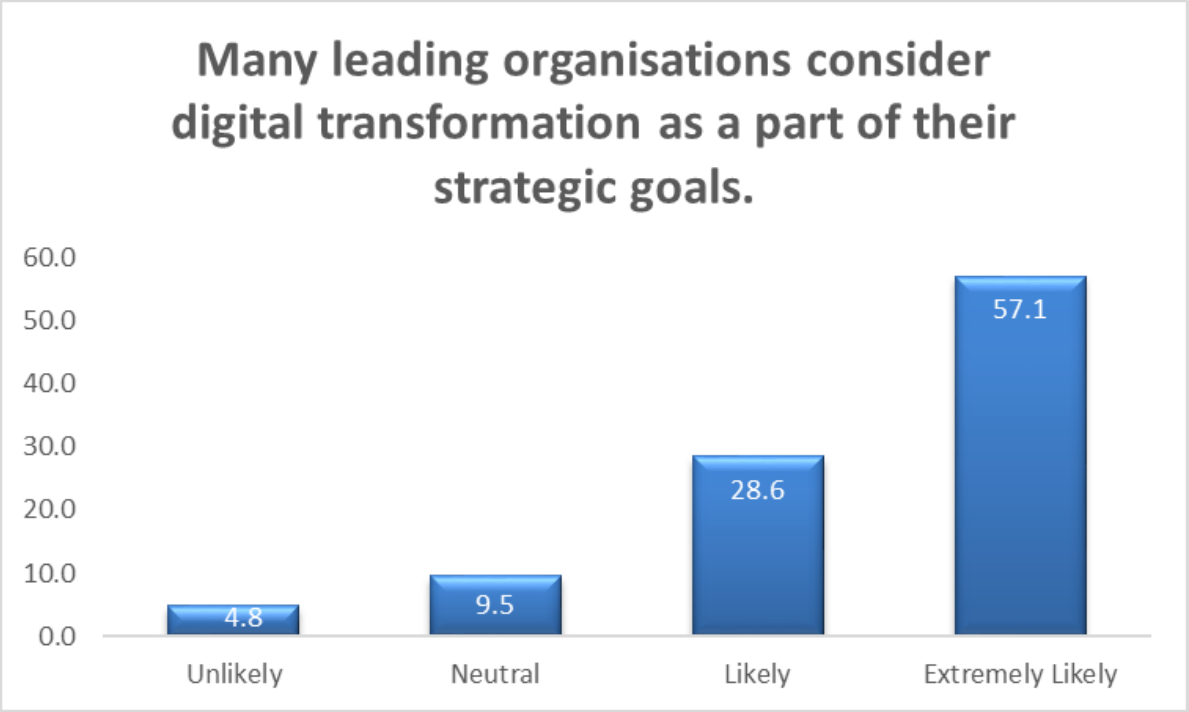


Figure 19: Many leading organisations consider digital transformation to be part of their strategic goals

Figure 19 illustrates that many leading organisations consider digital transformation to be part of their strategic goals. Most respondents (57.1%) indicated that this is extremely likely, followed by 28.6% of respondents who indicated that it is likely, 9.5% were neutral, and 4.8% indicated unlikely. The mean of the sub-construct "many leading organisations consider digital transformation to be part of their strategic goals" was 4.38 with a standard deviation of 0.865.

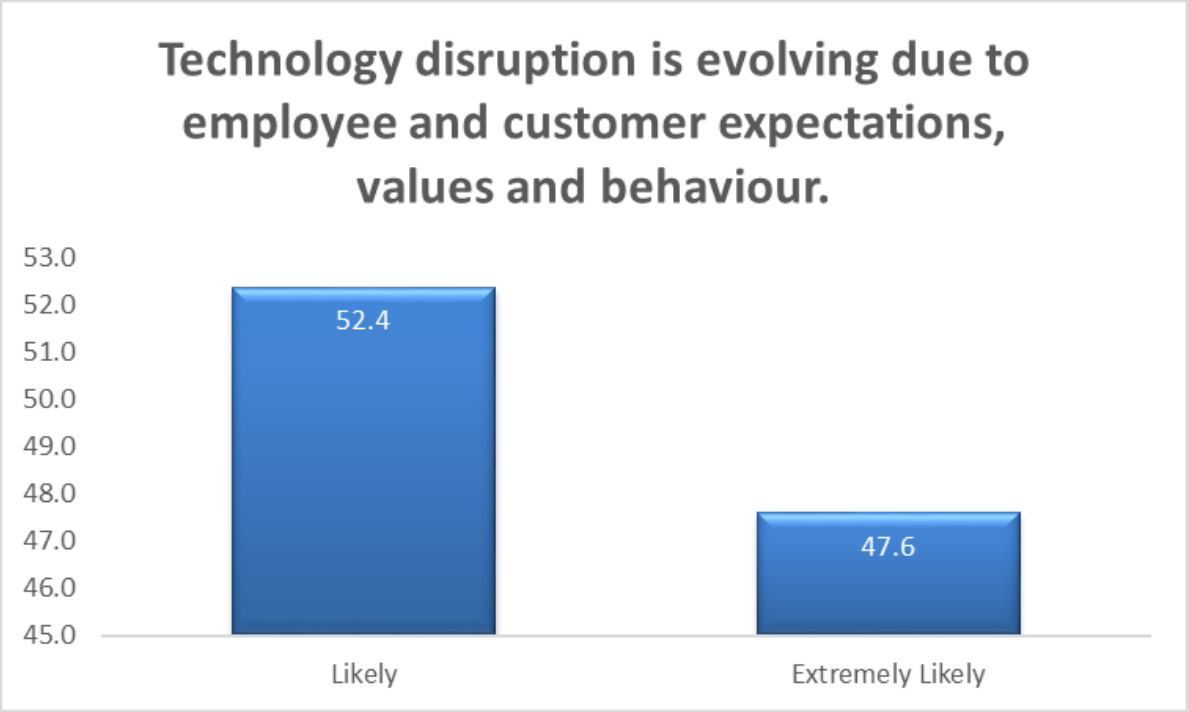


Figure 20: Technology disruption is evolving due to employee and customer expectations, values and behaviour

Figure 20 illustrates that technology disruption is evolving due to employee and customer expectations, values and behaviour. Most respondents (52.4%) indicated that this is likely, followed by 47.6% of respondents who indicated that it is extremely likely. The mean of the sub-construct "technology disruption is evolving due to employee and customer expectations, values and behaviour" was 4.48 with a standard deviation of 0.512.

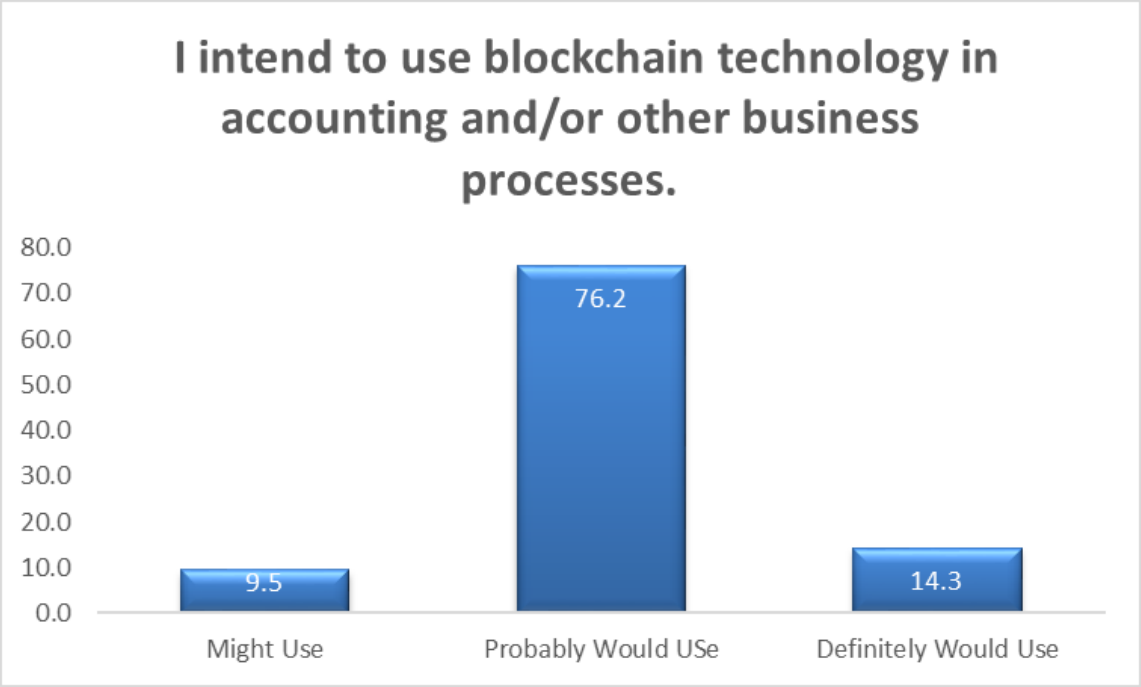


Figure 21: I intend to use blockchain technology in accounting and/or other business processes

Figure 21 illustrates that the respondent intends to use blockchain technology in accounting and/or other business processes. Most respondents (52.4%) indicated that they believe this is likely, followed by 42.9% of respondents who indicated that it is extremely likely and 4.8% indicated neutral. The mean of the sub-construct "I intend to use blockchain technology in accounting and/or other business processes" was 4.05 with a standard deviation of 0.498.

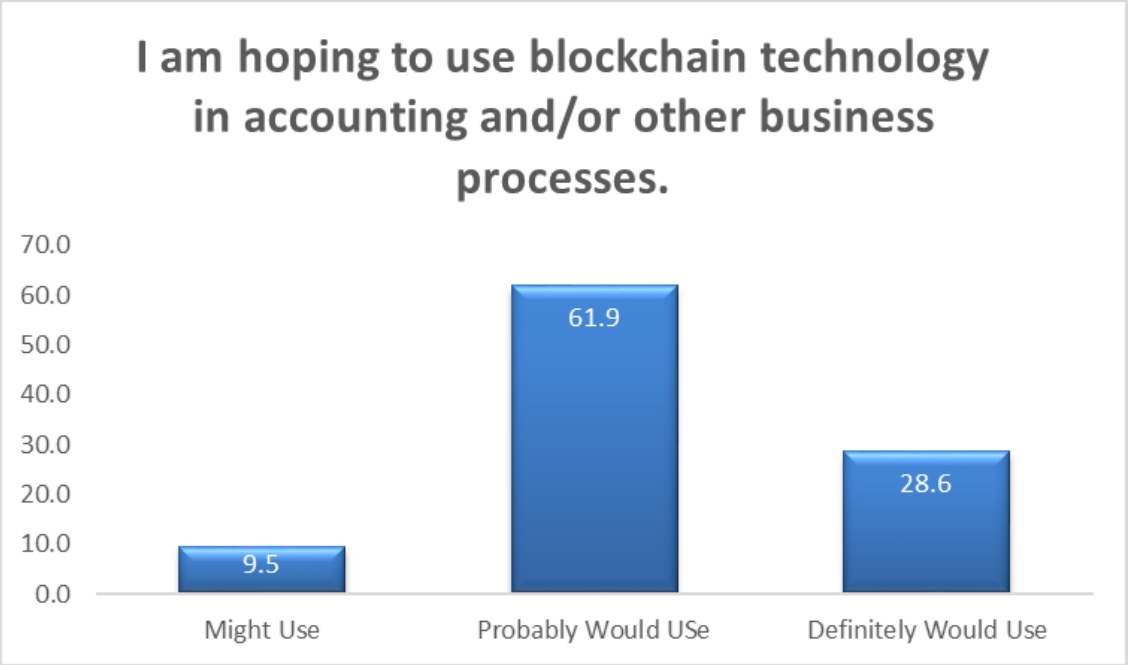


Figure 22: I am hoping to use blockchain technology in accounting and/or other business processes

Figure 22 illustrates that the respondent is hoping to use blockchain technology in accounting and/or other business processes. Most respondents (52.4%) indicated that this is likely, followed by 42.9% of respondents who indicated that it is extremely likely, with 4.8% being neutral. The mean of the sub-construct "I am hoping to use blockchain technology in accounting and/or other business processes" was 4.19 with a standard deviation of 0.602.

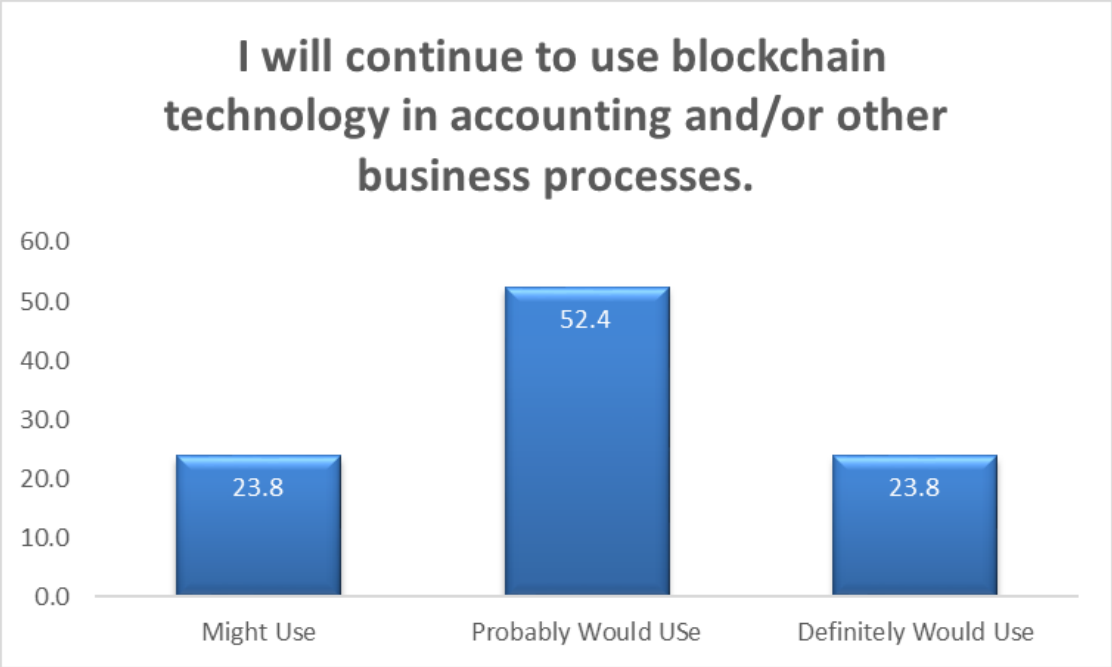


Figure 23: I will continue to use blockchain technology in accounting and/or other business processes

Figure 23 illustrates that the respondent will continue to use blockchain technology in accounting and/or other business processes. Most respondents (52.4%) indicated that this is likely, followed by 42.9% of respondents who indicated that it is extremely likely, with 4.8% being neutral. The mean of the sub-construct "I will continue to use blockchain technology in accounting and/or other business processes" was 4.00 with a standard deviation of 0.707.

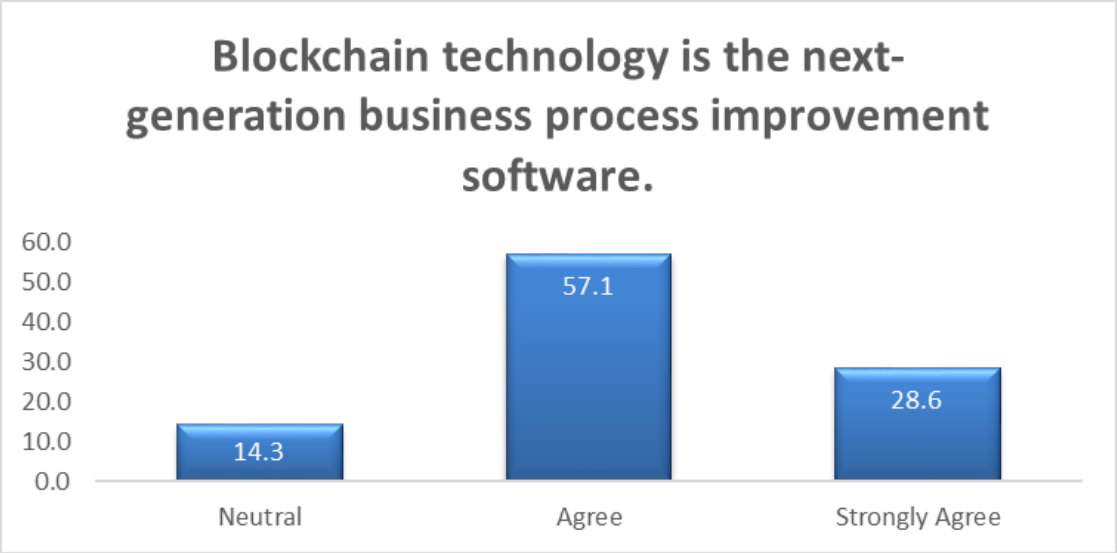


Figure 24: Blockchain technology is the next-generation business improvement software

Figure 24 illustrates that blockchain technology is the next-generation business improvement software. Most respondents (52.4%) indicated that this is likely, followed by 42.9% of respondents who indicated that it is extremely likely and 4.8% were neutral. The mean of the sub-construct "blockchain technology is the next-generation business improvement software" was 4.14 with a standard deviation of 0.655.

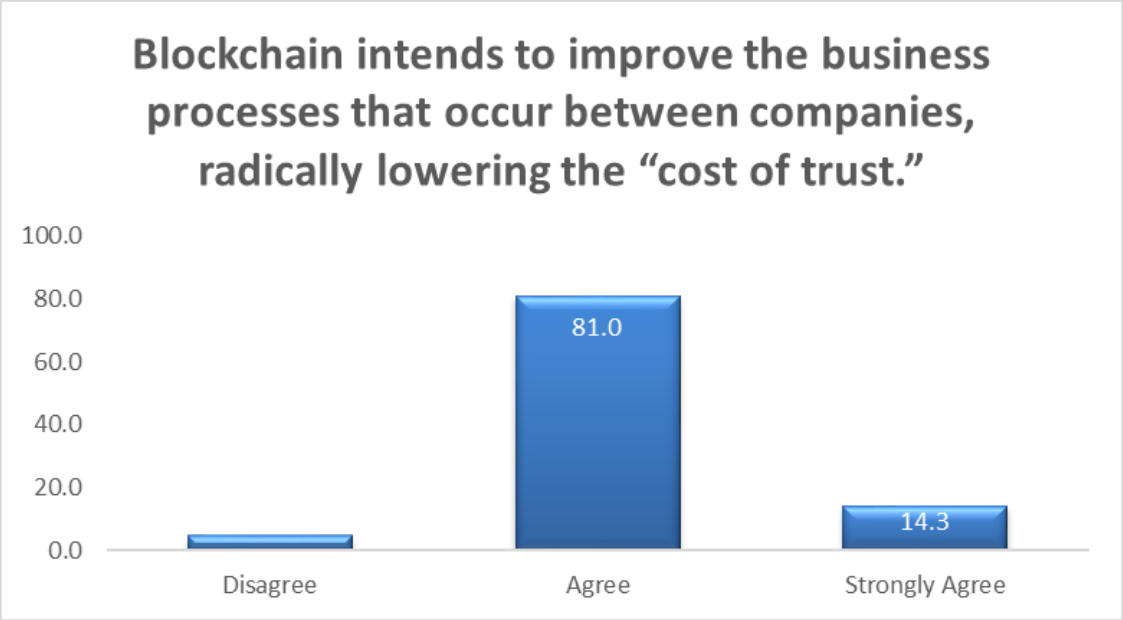


Figure 25: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust

Figure 25 illustrates that blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust. Most respondents (52.4%) indicated that they believe this, followed by 42.9% of respondents who indicated that it is extremely likely; 4.8% indicated neutral. The mean of the sub-construct "blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust" was 4.05, with a standard deviation of 0.590.

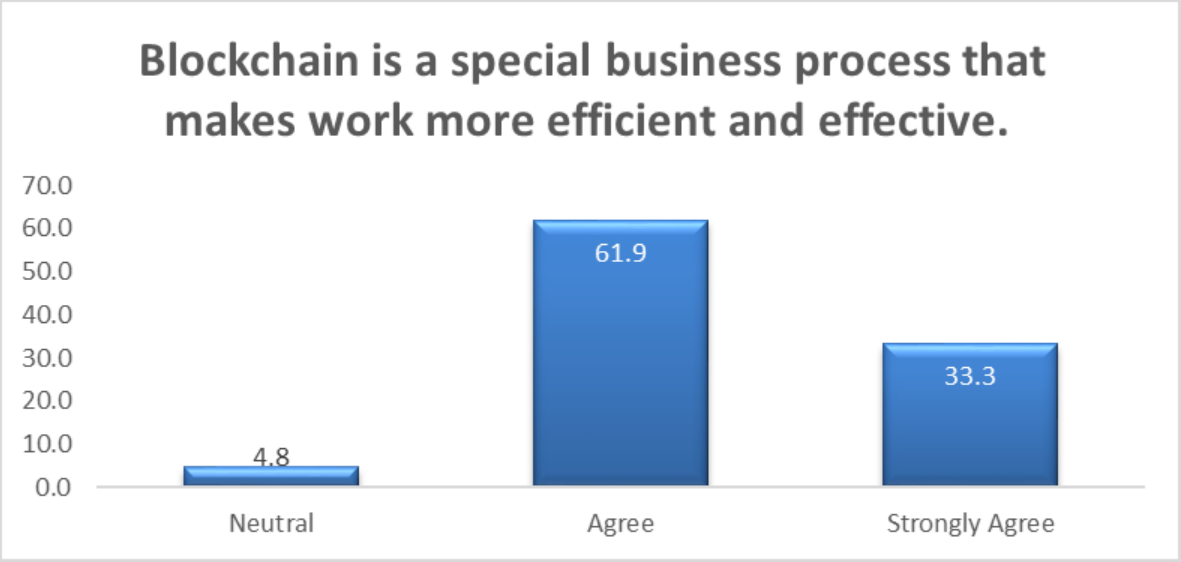


Figure 26: Blockchain is a special business process that makes work more efficient and effective

Figure 26 illustrates that blockchain is a special business process that makes work more efficient and effective. Most respondents (52.4%) indicated that this is likely, followed by 42.9% of respondents who indicated that it is extremely likely with 4.8% indicating neutral. The mean of the sub-construct "blockchain is a special business process that makes work more efficient and effective" was 4.29, with a standard deviation of 0.561.

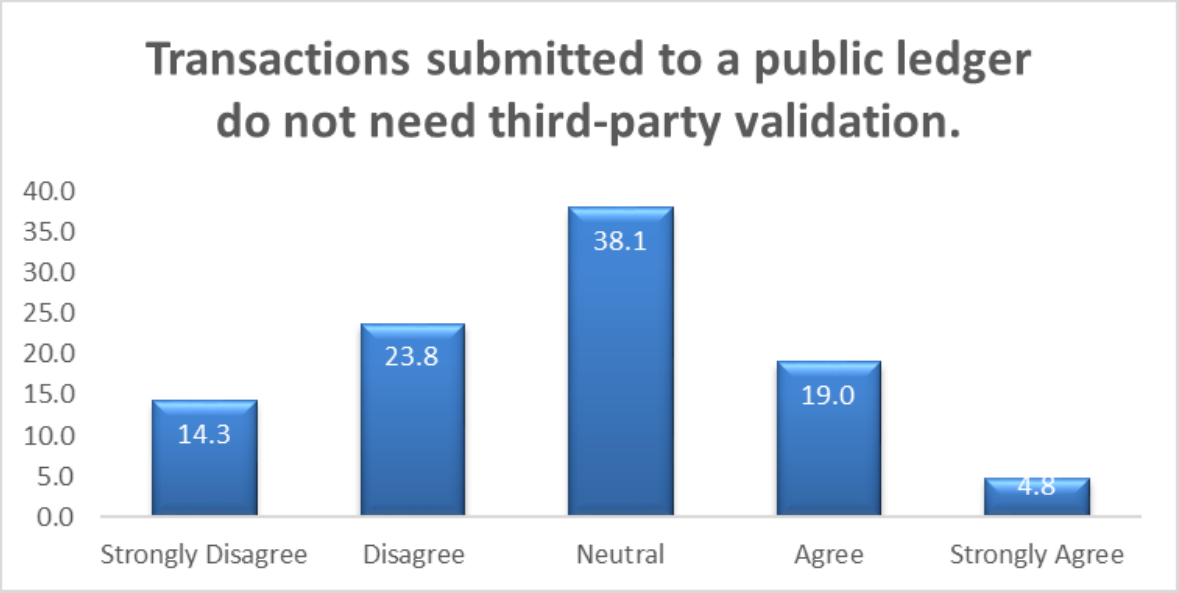


Figure 27: Transactions submitted to a public ledger do not need third-party validation

Figure 27 illustrates that transactions submitted to a public ledger do not need third-party validation. Most respondents (52.4%) indicated that this is likely, followed by 42.9% of respondents who indicated that it is extremely likely with 4.8% indicating neutral. The mean of the sub-construct "transactions submitted to a public ledger do not need third-party validation" was 2.76 with a standard deviation of 0.1.091.

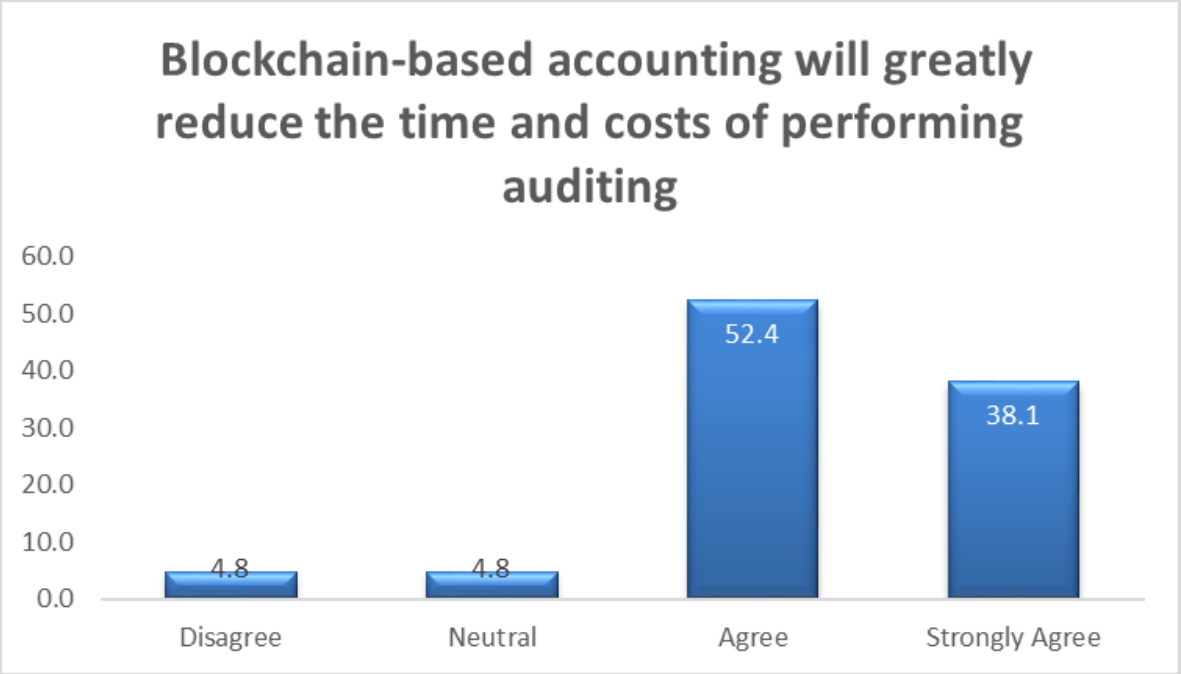


Figure 28: Blockchain-based accounting will greatly reduce the time and costs of performing auditing

Figure 28 illustrates that blockchain-based accounting will significantly reduce the time and costs of performing auditing. Most respondents (52.4%) indicated that they believe this is likely, followed by 42.9% of respondents who indicated that it is extremely likely and 4.8% were neutral. The mean of the sub-construct "blockchain-based accounting will greatly reduce the time and costs of performing auditing" was 4.24, with a standard deviation of 0.768.

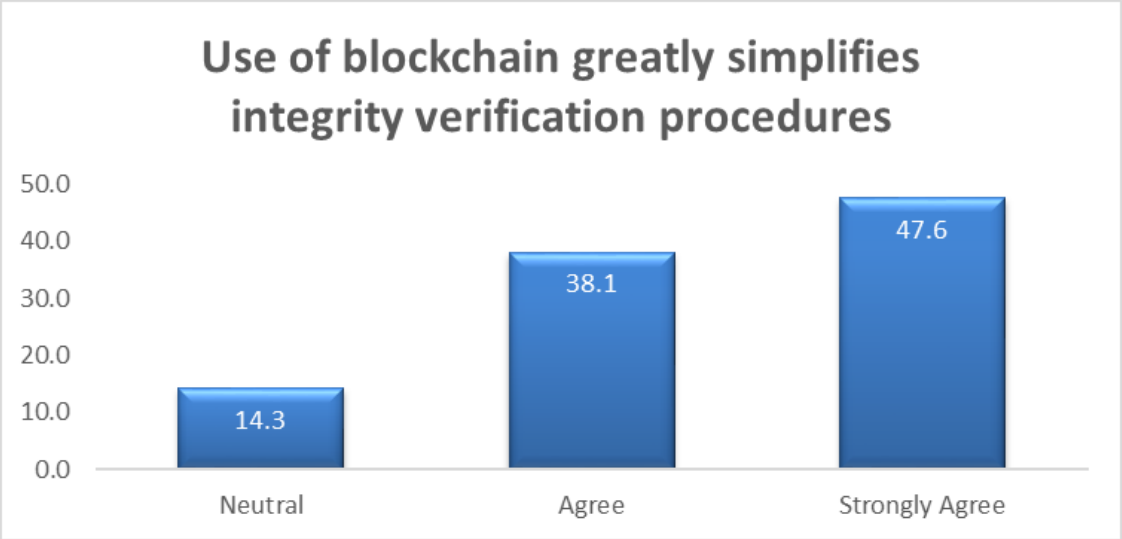


Figure 29: Use of blockchain greatly simplifies integrity verification procedures

Figure 29 illustrates that the use of blockchain greatly simplifies integrity verification procedures. Most respondents (52.4%) indicated that they agree that this is likely, followed by 42.9% of respondents who indicated that it is extremely likely with 4.8% indicating neutral. The mean of the sub-construct "use of blockchain greatly simplifies integrity verification procedures" was 4.33, with a standard deviation of 0.730.

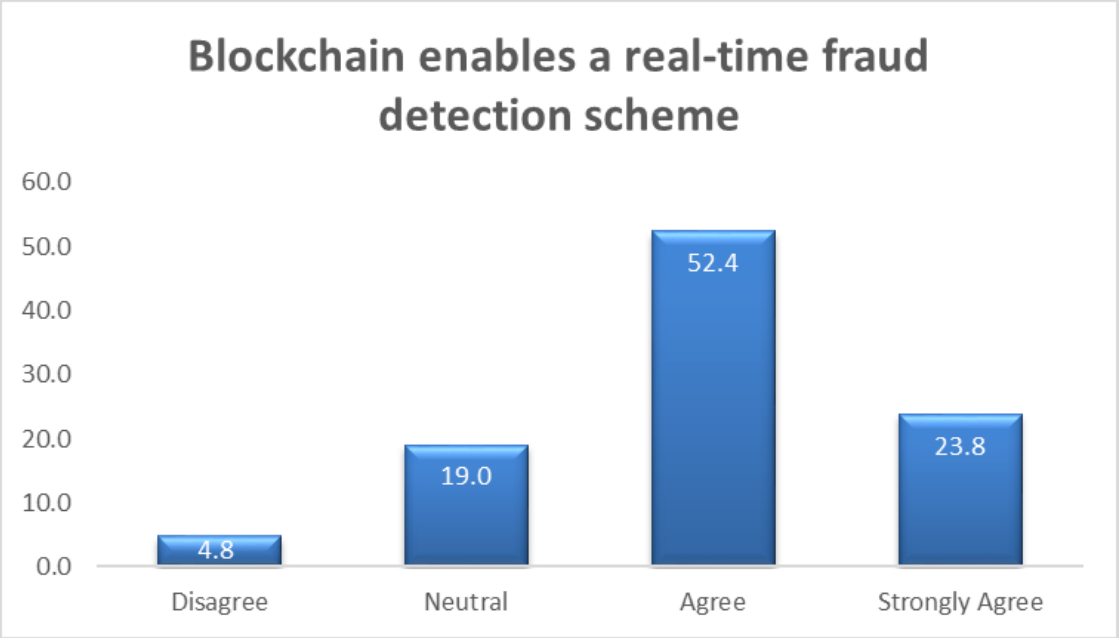


Figure 30: Blockchain enables a real-time fraud detection scheme

Figure 30 illustrates that blockchain enables a real-time fraud detection scheme. Most respondents (52.4%) indicated that this is likely, followed by 42.9% of respondents who indicated that it is extremely likely, with 4.8% indicating neutral. The mean of the sub-construct "blockchain enables a real-time fraud detection scheme" was 3.95, with a standard deviation of 0.805.

4.4.4 Conclusion of quantitative analysis

The results indicated that accountants have a limited awareness of blockchain technology, but they believe that technology disruption is evolving due to employee and customer expectations, values and behaviour. The results also indicate that blockchain technology will simplify accounting tasks and that accountants are looking forward to using blockchain technology.

4.5 Results – qualitative analysis

The following results are from face-to-face interviews conducted with 21 participants. Five qualitative questions were asked (refer to the research tool in Appendix C). The five questions were derived from the two research objectives, as mentioned in

Chapter 1. The five following questions have been split according to the two research objectives.

Objective 1: To determine which accounting tasks are manual and can be automated with blockchain technology

Question 1: The participants were asked which accounting tasks are manual, and 12 (57.1%) participants out of the 21 participants indicated that journals are manual. There were five participants out of the 21 who indicated Reconciliations as being manual, which represents 23.8% of the participants. The rest of the participants indicated several manual tasks, including capturing data, loading data and checking.

Researcher's comments

The research showed that processing accounting journals and reconciliations are the main manual tasks that are undertaken by accountants: this is indicated by 80.5% of participants who indicated journals and reconciliations.

Question 2: The 21 participants were asked how long these manual accounting tasks take and the study discovered that the participants spend between one and six hours daily on manual tasks. The majority of participants spend an hour per day on manual tasks, as shown in the table below.

Table 8: Duration of manual tasks per day

Number of participants	Duration of manual tasks per day
11	One hour
5	Two hours
4	Three hours
1	Four to six hours a day

Researcher's comments

The study indicated that 54.4% of participants spend an hour a day on manual tasks, followed by 23.8% of participants who spend two hours a day on manual tasks. The remaining 5% of participants indicated that they spend between three and six hours per day on manual tasks.

Question 3: The participants were then asked how frequently these tasks are done and out of the 21 participants the results are as follows: 12 out of 21 (57.1%) participants indicated that the manual accounting tasks are done monthly. Out of the 21 participants, six (28.6%) indicated that the tasks are done daily, and 14.3% of the 21 participants indicated that the manual accounting tasks are done weekly.

Researcher's comments

The study indicated that every month accountants spend a great deal of time working on manual accounting tasks. Depending on the roles of the accountants, some accountants spend time on manual tasks on a daily (28.6%) and weekly (14.3%) basis.

Question 4: The participants were asked which tasks can be automated with blockchain technology, and out of the 21 participants, nine participants indicated that processing of journals could be automated with blockchain technology. One out of 21 participants indicated tracing of signed resolutions as a task that could be automated using blockchain technology. Eleven participants out of 21 indicated that they are not sure if blockchain technology could automate some of their manual accounting tasks.

Researcher's comments

The research showed that 42.9% of the 21 participants believe that the processing of journals can be automated with blockchain technology, while only 4.8% of the 21 participants indicated the tracing of signed resolutions. Depending on the roles of the accountants and their manual tasks, 52.4% of the 21 participants were not sure if blockchain technology could automate some of their manual accounting tasks.

Objective 2: To determine how the automation of current accounting tasks will affect the accounting profession

Question 5: The participants were asked how automating accounting tasks would impact their work schedule. Out of the 21 participants, the study discovered that 11 participants believe that automating of current accounting tasks would save them a great deal of time. The study also identified that seven out of 21 participants believe that automating their current manual accounting tasks would result in improved accuracy and speed. Two participants out of 21 indicated that automation would lead

to easier and more visible audit trails as well as faster and more efficient audit testing. One participant out of 21 indicated that automating current manual accounting tasks would ensure the tracking of transactions at every step of the way.

Researcher's comments

It was noted that 52.4% of the 21 participants believe that automation will save them a great deal of time, and 33.3% of the 21 participants identified improved accuracy and speed as an impact on their work schedule through automation. The researcher observed that the 9.5% of the 21 participants who indicated easier audit trails and faster and more efficient audit testing were from the auditing firm Deloitte South Africa. Although these two participants were the only participants from an auditing firm, this shows that auditors believe that automation will greatly assist them because they have a significant amount of manual work that required verification.

4.6 Summary of the results and findings

In this chapter, the researcher presented the quantitative data gathered from the survey in the form of graphs and tables. The frequencies, categories and relationships of the responses and variables were presented with an explanation of the statistical analysis that was used. The researcher further presented the qualitative data analysis with the researcher's comments on the data collected from the interview questions.

The research showed that processing accounting journals and reconciliations are the main manual tasks of accountants, and they believe that the processing of accounting journals can be automated with blockchain technology. Every month, accountants spend a significant amount of time working on manual accounting tasks and believe that automation will save them time. The results also indicated that accountants have a limited awareness of blockchain technology. However, they believe that technology disruption is evolving due to employee and customer expectations, values and behaviour. The results also indicate that blockchain technology will simplify accounting tasks and that accountants are looking forward to using blockchain technology.

In the next chapter, the researcher discusses the results and findings of this study.

CHAPTER 5. DISCUSSION OF THE RESULTS AND FINDINGS

5.1 Introduction

The current study sought to explore which accounting tasks are manual and can be automated with blockchain technology and how the automation of current accounting tasks by blockchain technology will affect the accounting profession.

This chapter seeks to relate and compare the data presented and discussed in the previous chapter regarding the two research objectives, and to link the results and findings to the relevant academic literature presented in the literature review. Findings are compared and analysed by the research objectives. The findings summarise issues that were identified from the literature and the primary research data collected through one-on-one semi-structured interviews. After determining whether there is any relationship between the results and findings of this study and those of other prior academic studies, this study is concluded, having noted any relationships and discrepancies that are significant.

5.2 Research Objective 1 – To determine which accounting tasks are manual and can be automated with blockchain technology

The first research objective sought to explore which accounting tasks are manual and can be automated with blockchain technology.

5.2.1 Discussion from quantitative results

The data from quantitative results showed that accountants felt that blockchain technology would enable simplified accounting data verification and could develop to become the best system for the processing of journals. This is in line with the finding in the literature review by Appelbaum and Smith (2018) that blockchain technology will save the accountant's time on reconciliations as data are confirmed by all parties in real-time. The time saved will enable accountants to focus on higher-level advisory services.

The quantitative data results also showed that accountants believe that blockchain technology plays a pivotal role in the development to become the "system of systems" or "journal of journals". Blockchain technology will be the most preferred technology to automate the processing of accounting journals due to the transparency and accuracy of the transactions.

McCallig et al. (2019) found that financial reporting systems will improve the representational trustworthiness of financial reporting. The financial data will be provided by multiple entities independent of the reporting entity to confirm validity, the financial network and processes will be transparent, and, finally, the information stored on a blockchain that uses a public and transparent recording method cannot be amended. Although there were no prior studies that focused on identifying the manual accounting tasks, the studies conducted by Deloitte (2016) found that companies could record their financial transactions directly into a joint register that creates a chain of verified accounting records.

The quantitative data also indicated that accountants believe that the use of blockchain technology greatly simplifies integrity verification procedures. A study by Wang and Kogan (2018) found that the accounting blockchain technology convergence shows great potential for enhancing information integrity, lowering transmission costs, increasing the transaction settlement speed, and ensuring that fraudulent transactions are prevented. The quantitative data also showed that blockchain technology enables a real-time fraud detection scheme; this finding also supports the prior studies by Wang and Kogan (2018).

5.2.2 Discussion from qualitative findings

The qualitative findings provided valuable insight regarding manual accounting tasks. During the qualitative data analysis, the processing of accounting journals emerged as the leading manual accounting task.

According to Shekhar (2019), a journal is a historical record of business transactions or events. It is also referred to as the book of first entry since every transaction is first recorded in the journal. A journal entry is the recording of business transactions in the journal. Each transaction is recorded separately. Before recording the entry,

accountants analyse the transaction to establish which account is to be debited and which account is to be credited (Shekhar, 2019).

Blockchain technology would solve this manual task of preparing and posting of journals because of its "triple-entry bookkeeping". As discussed in Chapter 2, with current double-entry bookkeeping, every transaction is entered twice: as a debit and as a credit. With blockchain technology, there are three entries: the debit, the credit, and the cryptographic signature of the transaction (Brandon, 2016).

Another manual task that emerged across all respondents was Reconciliations. Reconciliations in accounting refers to the process of comparing internal financial records against monthly financial statements from external sources such as banks, or any other financial institution in order to ensure they agree (Elmblad, 2019).

English (2019) found that a high level of automation will mean that accountants do not have to reconcile financial transactions because this will be done accurately and in real-time. The accountants felt that these tasks take up a lot of their valuable time because they are manual and done regularly. The accountants also felt that blockchain technology could play a significant role in automating the manual tasks identified. The accountants agreed that blockchain technology's features of traceability, accuracy, security and speed could be most useful when it comes to the passing of accounting journals and reconciliations, as all transactions would be visible to all parties. The findings regarding the manual tasks support prior studies by Augustine et al. (2017) that the accounting profession includes manual verification of financial data.

5.3 Research Objective 2 – To determine how the automation of current accounting tasks will affect the accounting profession

The second research objective explored how the automation of current accounting tasks by blockchain technology would affect the accounting profession.

5.3.1 Discussion from quantitative results

The quantitative results revealed that most accountants believe that the high level of trustworthiness of accounting information in blockchain technology will alter the role of

accountants. Dai et al. (2018) had a similar finding that blockchain technology will disrupt the accounting profession, which will result in a skills shift, and the current entry-level accounting jobs that require no or low-level cognitive skills may eventually disappear. Dai's study makes recommendations that accounting bodies should focus more on higher-level skills in critical, analytical, and innovative thinking and reduce the emphasis on memorisation and technical application of rules.

The quantitative results also indicated that the procedures in the accounting data verification will be simplified by using blockchain-based accounting technology. These results also indicated that blockchain is a special business process that makes work more efficient and effective. Moll and Yigitbasioglu (2019) found that blockchain will improve financial visibility and timely reporting, which will relieve many tasks undertaken by accountants, leading to concerns about the profession's legitimacy and the role of accountants in future.

As indicated by the quantitative results, the auditing profession will be significantly impacted in that blockchain-based accounting will reduce auditing costs and time: this will result in reduced tasks and less demand for auditors. As discussed in the literature review, Dai and Vasarhelyi (2017) revealed that blockchain technology has the potential to transform current auditing practices significantly, resulting in a more precise and timely automatic assurance system. However, Smith (2019) found that auditing work will transition to an advisory role and a more forward-looking role because of the reduced manual tasks.

5.3.2 Discussion from qualitative findings

During the analysis of the qualitative data, the data gathered showed that the automation of current accounting tasks would save a significant amount of time. A study by (Nordgren, Weckström, Martikainen, & Lehner, 2019) revealed that blockchain technology will increase transparency and trust and save time and money by eliminating intermediaries. When participants were asked how long these manual accounting tasks take, most participants indicated that manual tasks take several hours a day, depending on what tasks are being done. Some tasks are daily, weekly or monthly.

The overall feeling was that the time saved could be used for more strategic and analytical work, ensuring that the correct analysis is done.

Another impact on the accounting profession is that blockchain technology would improve the accuracy of the financial information. The time saved would be used on more valuable tasks in terms of the financial analysis and reporting and less time used for checking the validity of the data. A similar finding was identified in the literature review by Jayasuriya (2019) about blockchain technology's great potential regarding transparency, accuracy of data and the time saved.

Another impact that emerged with the external auditors from Deloitte was that auditing would be much easier to perform because of blockchain's visibility of transactions. These are similar to the prior studies in the literature review that indicated that the audit function will be transformed. Dai and Vasarhelyi (2017) found that blockchain has the potential to transform current auditing practices, resulting in a more precise and timely automatic assurance system, because blockchain technology can enable a real-time, verifiable, and transparent accounting system.

5.4 Conclusion

The following chapter provides overall conclusions of the study, discusses implications of the study and makes suggestions for future research based on the knowledge accumulated.

CHAPTER 6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The purpose of this chapter is to make deductions from the results presented in Chapter 5. The chapter will integrate the findings regarding the research objectives. This is followed by the conclusion and recommendations concerning the findings. In the last part of the chapter, the study's limitations are described, including suggestions for future research.

6.2 Conclusions regarding Research Objective 1

Research Objective 1 sought to explore which accounting tasks are manual and can be automated with blockchain technology. The literature reviewed for this study focused on blockchain technology and its impact on the accounting profession. The researcher noted that prior studies only focused on the impact of blockchain technology in the accounting profession, and no study had investigated manual accounting tasks. The prior studies were purely theoretical and did not go deeper into finding out from accountants which tasks were manual.

The findings in this study revealed that accountants spend considerable time doing manual tasks including processing journals, reconciliations, manual capturing and checking of financial data, manual input of financial data into the accounting system, checking resolutions and signed legal contacts. The study also revealed the tasks that accountants believe can be automated using blockchain technology: processing of journals, tracing of signed resolutions or agreements, and the loading of financial data into the accounting system. The study found that the majority of accountants spend between one and two hours a day on manual tasks, and most of these tasks are performed on a monthly basis.

6.3 Conclusions regarding Research Objective 2

Research Objective 2 explored how the automation of current accounting tasks by blockchain technology would affect the accounting profession. The researcher noted in the literature review that a number of theoretical studies have been conducted on

the impact of blockchain accounting in the accounting profession. Most of the findings in the literature review were that accounting jobs would be threatened. This study found that accountants were eager to start using blockchain technology and that this technology would release accountants to do more analytical work and ensure that the accuracy of the financial information is improved.

The study found that accountants currently have less time to fulfil their roles because they spend a lot of time working on less challenging manual tasks like Reconciliations. The accountants do not see blockchain technology as a threat to their jobs, but they see this digital technology as an enabler that would lead to more job satisfaction. Another finding is that blockchain technology in auditing would enable auditing tasks to be much easier to perform owing to blockchain's visibility of transactions with a clear audit trail. This finding regarding the impact in auditing is similar to findings from prior studies discussed in the literature review.

6.4 Recommendations

After reviewing the results relating to Research Questions 1 and 2, it can be concluded that the findings of this study are in line with similar studies conducted previously on blockchain technology in accounting. The following recommendations can be made:

• The quantitative data showed that accountants are eager to use blockchain technology but do not have a full understanding of how this digital technology works. It is recommended that accountants should continually upgrade their knowledge. Accounting bodies or associations such as SAICA, ACCA, SAIPA, CIMA and CFA should encourage their members to learn about blockchain technology and also provide platforms for accountants to engage and discuss this disruptive technology. The academic and training programmes should be updated to include digital technologies such as blockchain. The accounting standard setters like IFRS also need to learn about blockchain technology and how accounting standards will be affected by this technology. They need to start making the relevant changes to accounting standards.

• The quantitative data indicated that many leading organisations consider digital transformation as a part of their strategic goals. Companies should start investigating

blockchain technology to identify how this technology can be introduced. Companies can start with pilot programmes on a smaller scale and monitor any improvement in the turnaround time for certain accounting tasks.

• The quantitative data also revealed that technological disruption is evolving due to employee and customer expectations, values and behaviour. Companies should involve employees when it comes to digital technologies, innovative ideas from employees should be accepted, and employees should be motivated to formulate innovative suggestions on how to use digital technologies like blockchain technology. Companies should not fear change as technology is continuously evolving and improving.

• The quantitative data indicated that blockchain-based accounting will reduce auditing costs and time. Auditing firms should start planning how to perform auditing using blockchain accounting and investigate how the automation will impact this field. The way auditing is currently performed will need to be changed to accommodate automation and more value-add services should be introduced by audit firms if they plan to survive and avoid losing business and cutting jobs.

• The qualitative data indicated the manual accounting tasks and how long these manual tasks take. Companies should investigate how to automate these tasks to save valuable time for accountants. Processing journals is the main manual task, and this task can be automated with blockchain technology. Companies should start setting up systems to enable the automation of journals using blockchain technology.

• The qualitative data indicated that some accountants were not sure if blockchain technology could automate some of their manual tasks. There should be a drive to educate accountants about blockchain technology. This initiative should start from government by ensuring that digital technologies are taught at school level and up to university level.

African countries need to support new digital technologies like blockchain technology, and governments should be involved to assure companies that these technologies are safe to use. African governments also need to make sure that citizens have access to affordable and (eventually) free internet with fast connection speeds to enable everyone to learn and use digital technologies.

Blockchain technology can be beneficial for ordinary citizens to transfer money using Bitcoin across the African continent and to other continents. As discussed in the literature review, blockchain technology can also be used in healthcare, logistics and supply chain, education, agriculture, music, fuels and oil, insurance and government organisations and services.

6.5 Suggestions for further research

Several limitations of this study could provide opportunities for future research.

• The study was conducted on a limited sample size using a purposive sample, which could lead to doubt about the validity of the results and the ability to generalise the conclusions. Future studies could include a larger and more representative sample to validate or disprove the findings of this study.

• Another limitation was the time allocated to do this research. With more time, the study could include accountants from several corporate companies across different economic sectors; banking, healthcare, insurance and other sectors, for instance.

• This dissertation explored an area of study that is currently underdeveloped; thus it is conducive to theory building, and it should be used for such and as a baseline to draw upon for future research in this field of study.

• The gap that emerged from this study is that the studies available on blockchain technology used in the literature review are mostly theoretical, which presented an opportunity for an empirical study to be conducted.

• There are limited studies on blockchain in Africa, and most studies were conducted in developed countries. This study will add to the BoK on blockchain technology and the accounting profession on the African continent. The study will form a basis on which other blockchain studies can be done. More studies should be conducted in Africa, as this will bring about valuable insights.

REFERENCES

Adom, D., Hussein, E. K., and Agyem, J. A. (2018). Theoretical and conceptual framework: Mandatory ingredients of a quality research. *International Journal of Scientific Research*, 7(1), 438-441.

Aggarwal, S., Chaudhary, R., Aujla, G. S., Kumar, N., Choo, K.-K. R., & Zomaya, A. Y. (2019). Blockchain for smart communities: Applications, challenges and opportunities. *Journal of Network and Computer Applications*, 144(1), 13-48.

Alboaie, S., Horomnea, E., Rata, A., and Vaida, M. (2018). Semantic analysis audit in triple-entry accounting systems based on Blockchain. *Electronics and Telecommunications*, 59(1), 14-18.

Anwar, H. (2018, 24 May). Blockchain. Retrieved 6th January, 2020, from https://101blockchains.com/introduction-to-blockchain-features

Appelbaum, D., and Smith, S. S. (2018). Blockchain basics and hands-on guidance (pp. 28-37). New York, USA.

Atlam, H. F., and Wills, G. B. (2018). Technical aspects of blockchain and IoT (pp. 1-39). Southampton, United Kingdom.

Augustine, F. K., Giberson, W., & Woodside, J. M. (2017). Blockchain technology adoption status and strategies. *Journal of International Technology and Information Management*, 26(2), 65-93.

Azzi, R., Chamoun, R. K., & Sokhn, M. (2019). The power of a blockchain-based supply chain. *Computers & Industrial Engineering*, 135(1), 582-592.

Baron, J. (2017). Blockchain: What you need to know (pp. 47). New York, USA.

Bøe, T., Gulbrandsen, B., & Sørebø, Ø. (2015). How to stimulate the continued use of ICT in higher education: Integrating Information Systems Continuance Theory and agency theory. *Computers in Human Behavior,* 50(1), 375-384.

Bogdan, R., and Biklen, S. K. (2003). Qualitative research for education: An introduction to theories and methods (4th ed.): Pearson.

Boučková, M. (2015). Management Accounting and Agency Theory. *Procedia Economics and Finance,* 25(1), 5-13.

Brandon, D. (2016). The blockchain: The future of business information systems? *International Journal of the Academic Business World*, 10(2), 33-40.

Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(1), 77-101.

Brincat, A. A., Lombardo, A., Morabito, G., & Quattropani, S. (2019). On the use of blockchain technologies in wifi networks. *Computer Networks*, 162(1), 1-9.

Chinaka. (2016). Blockchain technology-applications in improving financial inclusion in developing economies. Case study for small scale agriculture in Africa.

Chiu, V., Liu, Q., Muehlmann, B., and Baldwin, A. A. (2019). A bibliometric analysis of accounting information systems journals and their emerging technologies contributions. *International Journal of Accounting Information Systems*, 32(1), 24-43.

Cooper, D. R. & Schindler P. S. 2008. Business Research Methods. McGraw Hill International Edition, Tenth Edition. 292-295.

Dai, J., and Vasarhelyi, M. A. (2017). Toward blockchain-based accounting and assurance. *Journal of Information Systems*, 31(3), 5-21.

Dai, J., Vasarhelyi, M. A., and Zhang, C. A. (2018). The impact of disruptive technologies on accounting and auditing education (pp. 20-26). New York, USA.

De la Vega, F., Soriano, J., Jimenez, M., and Lizcano, D. (2018). A peer-to-peer architecture for distributed data monetization in fog computing scenarios. *Wireless Communications and Mobile Computing*, 2018(1), 1-15.

Deloitte. (2016). Blockchain A game-changer in accounting (pp. 1-4). Germany.

Diamantopoulos, A., and Schlegelmilch, B. (2000). Taking the Fear out of Data Analysis (Vol. Hampshire). Hampshire, UK: Cengage Learning EMEA.

Dickow, M., and Jacob, D. (2018). The Global Debate on the Future of Artificial Intelligence (pp. 1-8). Berlin, Germany.

Dillard, J., & Vinnari, E. (2019). Critical dialogical accountability: From accounting-based accountability to accountability-based accounting. *Critical Perspectives on Accounting*, 62, 16-38.

Elmblad, S. (2019). What Does Reconciliation Mean in Accounting? Retrieved 24th January, 2020 from https://www.thebalance.com/what-is-account-reconciliation-1293657

English, D. B. M. (2019). Rise of the (Accounting) Machines? Blockchain and AI: the Changing Face of the Profession (pp. 12-14). California, USA.

Enzo, W. (2017). Employment and the Welfare State in the Era of Digitalisation. *CESifo Forum*, 18(4), 22-27.

Faccia, A., and Mosteanu, N. R. (2019). Accounting and blockchain technology: from double-entry to triple-entry. *The Business and Management Review*, 10(2), 108-116.

Fisher, C.T. (2006). Qualitative research methods for psychologists. London: Elsevier.

Fridah, M. (2002, 9 June). Sampling In Research. Retrieved 11th June, 2019, from http://trochim.human.cornell.edu/tutorial/mugo/tutorial.htm

Gray, D. E. (2009). Doing Research in the Real World. 2nd Edition. London: Sage.

Hoffmann, A. O. I., & Kleimeier, S. (2020). How do banks finance R&D intensive firms? the role of patents in overcoming information asymmetry. *Finance Research Letters*, 1(1), 1-10.

Hofstee, E. 2011. Constructing a Good Dissertation: A Practical Guide to Finishing a Master's, MBA or PhD on schedule. Johannesburg: EPE.

Holotescu, C. (2018, 19-20 April). *Understanding Blockchain Technology and how to get invlolved*. Paper presented at the The 14th International Scientific Conference eLearning and Software for Education, Bucharest.

Hood, D. (2018). Being the bookkeeper of the future (pp. 35-37). New York, USA.

Huang, J. L., Lu, P. J., and Yeh, L. Y. (2018, 20-24 May). *An Privacy-preserving Cross-organizational Authentication/Authorization/Accounting System using Blockchain Technology*. Paper presented at the 2018 IEEE International Conference on Communications (ICC 2018), Kansas City, MO, USA.

Jayasuriya, D., and Sims, A. (2019). Genisys or Skynet? An Empirical and Theoretical View of Blockchain Enabled Corporate Governance and Accounting(pp. 1-35). Auckland, New Zealand.

Khandelwal, S. (2019, 5-7 January). *Blockchain Technology: Heart of Digital Financial Infrastructure for Managing Trust and Governance System*. Paper presented at the Proceedings of 10th International Conference on Digital Strategies for Organizational Success, India.

Kokina, J., Mancha, R., and Pachamanova, D. (2017). Blockchain: Emergent Industry Adoption and Implications for Accounting. *Journal of Emerging Technologies in Accounting*, 14(2), 91-100.

Lampropoulos, G., Siakas, K., and Anastasiadis, T. (2019). Internet of Things in the Context of Industry 4.0: An Overview. *International Journal of Entrepreneurial Knowledge*, 7(1), 4-19.

Lee. (1999). Using Qualitative Methods in Organizational Research. California, United States: Sage.

Leedy, P.D. and Ormrod, J.E. 2005. Practical Research: Planning and Design (9th edition). Upper Saddle River, NJ: Pearson.

Lincoln, Y.S. & Guba, E.G. (1985). Naturalistic Inquiry. Newbury Park, CA: Sage Publications.

Maestrini, V., Luzzini, D., Caniato, F., & Ronchi, S. (2018). Effects of monitoring and incentives on supplier performance: An agency theory perspective. *International Journal of Production Economics, 203*, 322-332

Marshall, C. & Rossman, G. (1989). Designing Qualitative research. New Bury Park: Sage.

McCallig, J., Robb, A., and Rohde, F. (2019). Establishing the representational faithfulness of financial accounting information using multiparty security, network analysis and a blockchain. *International Journal of Accounting Information Systems*, 33(1), 47-58.

Moll, J., and Yigitbasioglu, O. (2019). The role of internet-related technologies in shaping the work of accountants: New directions for accounting research (pp. 1-34). Britain.

Monterio. (2016). Blockchain Is the New Black No, Really (pp. 16-18). California, USA.

Mori, T. (2016). Financial technology: Blockchain and securities settlement. *Journal of Securities Operations and Custody*, 8(3), 208-217.

Nawari, N. O., and Ravindran, S. (2019). Blockchain and the built environment: Potentials and limitations. *Journal of Building Engineering*, 25(1), 1-16.

Nordgren, A., Weckström, E., Martikainen, M., and Lehner, O. (2019). Blockchain in the fields of finance and accounting: a disruptive technology or an overhyped phenomenon? *ACRN Oxford Journal of Finance and Risk Perspectives*, 8(1), 47-58.

O'Dair, M., & Beaven, Z. (2017). The networked record industry: How blockchain technology could transform the record industry. *Strategic Change*, 26(5), 471-480.

Ogiela, M. R., and Majcher, M. (2018, 16-18 May). *Security of Distributed Ledger Solutions Based on Blockchain Technologies*. Paper presented at the 2018

IEEE 32nd International Conference on Advanced Information Networking and Applications (AINA).

Pereira, J., Tavalaei, M. M., & Ozalp, H. (2019). Blockchain-based platforms: Decentralized infrastructures and its boundary conditions. *Technological Forecasting and Social Change*, 146(1), 94-102.

Pietrzak, Ż., & Wnuk-Pel, T. (2015). The Roles and Qualities of Management Accountants in Organizations – Evidence from the Field. Procedia - *Social and Behavioral Sciences*, 213(1), 281-285.

Rao, L., and Pandurangiah, S. (2018, 29 June). *Blockchain Technology Will it disrupt or discipline accountants*. Paper presented at the International Conference 2018; Professionals of the future, Hotel Taj Diplomatic Enclave; New Delhi, India

Riahi-Belkaoui, A. (2017). A Profession at a Crossroad (pp. 1-57). Chicago, USA.

SAICA. (2018, 2 March). How to become a CA(SA). Retrieved 24th July, 2019, from https://www.saica.co.za/Training/BecomingaCA/tabid/157/language/en-US/Default.aspx

Scott, B., Loonam, J., and Kumar, V. (2017). Exploring the rise of blockchain technology: Towards distributed collaborative organizations. *Strategic Change*, 26(5), 423-428.

Sekaran, U. and Bougie, R. (2013). Research Methods for Business: A Skill-Building Approach. 6th Edition, Wiley, New York.

Seatstomeet. (2017, 1 September). Blockchain. Retrieved 15th July, 2019, from https://magazine.seats2meet.com/wp-content/uploads/2017/09/Blockchain.jpg

Shaikh, I. A., & Colarelli O'Connor, G. (2020). Understanding the motivations of technology managers in radical innovation decisions in the mature R&D firm context: An Agency theory perspective. *Journal of Engineering and Technology Management,* 55(1), 1-16.

Shekhar, C. (2019). Introduction To Accounting. Retrieved 24th January, 2020, http://www.ddegjust.ac.in/studymaterial/bba/bba-104.pdf

Smith, S. S. (2018). Implications of Next Step Blockchain Applications for Accounting and Legal Practitioners: A Case Study.

Smith, S. S. (2019). Blockchain augmented audit - benefits and challenges for accounting professionals. Lehman College, City University of New York, New York.

Stangor, C. (2007). Research methods for the behavioral sciences. 3rd Edition. Boston: Houghton Mifflin Co.

Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, 5(2), 18-27.

Tapscott, A., and Tapscott, D. (2017). How Blockchain Will Change Organizations (pp. 10-13). Massachusetts, USA.

Ting Yu, Z. S. L., and Qingliang Tang. (2019). Blockchain: Introduction and Application in Financial Accounting. *The Journal of Corporate Accounting and Finance, 29*(4), 37-47.

Tracy, S. J. (2010). Eight “Big-Tent” Criteria for Excellent Qualitative Research. *Qualitative Quality*, 16(10), 837-851.

Vuke, K. (2012, 3 July). Difference between theoretical research and empirical? Retrieved 29th August, 2019, from https://www.answers.com/Q/Difference_between_theoretical_research_and_empirical

Wang, Y., and Kogan, A. (2018). Designing confidentiality-preserving Blockchain-based transaction processing systems. *International Journal of Accounting Information Systems*, 30(1), 1-18.

Wang, Q., Zhu, X., Ni, Y., Gu, L., and Zhu, H. (2019). Blockchain for the IoT and industrial IoT: A review. *Internet of Things*, 1(1), 1-9.

Welman, J. and Kruger, S. (2001) Research Methodology. Cape Town: Oxford University Press.

Yang, L. (2019). The blockchain: State of the art and research challenges. *Journal of Industrial Information Integration,* (1), 1-11.

Yin. (2003). Case Study Research Design and Methods. Thousand Oaks, California: Sage Publications.

Zohrabi, M. (2013). Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. Theory and Practice in Language Studies, 3(2), 254-262.

APPENDIX A – Letter to respondents

Dear Respondent,

I am completing a Masters in Management in the field of Digital Business (MMDB) at Wits Business School. My master's dissertation is on blockchain technology: an examination of use-cases in the accounting profession. Towards gathering data on the subject, I would be grateful if you could complete the questionnaire. I understand that you are extremely busy, your agreement to contribute to my research is greatly appreciated.

Please be assured that the information provided is for academic purposes only and all responses will be treated strictly confidential. As a selected participant, you are requested to avail yourself for an interview that will take approximately 20 minutes on the date and venue convenient to you. Please note, the interview will be completely anonymous for confidentiality reasons. Feedback will be made available should you require it.

Kindly answer all questions as honestly as you can as the quality of the outcome of the study will depend on your answers.

Thank you for your kind assistance.

Yours sincerely

Sibusiso Malinga

+27 79 810 6511

APPENDIX B – Permission to conduct study

Imperial logistics

Wits Business School

P O Box 98

Wits, Johannesburg

2050

To whom it may concern

Re: permission to conduct research

This letter serves to confirm that Imperial Logistics Ltd have given consent allowing Sibusiso Malinga to conduct research for his studies in the Masters in Management in the field of Digital Business (MMDB) programme, on condition that no reference is made to Imperial and that all company information remains confidential.

Yours faithfully



Wrongcliff Buckton

Finance Executive

Imperial Logistics Limited

Executive directors: M Swanepoel (CEO), M Akoojee (CEO Designate), JG de Beer

Non-Executive Directors: P Langeni (Chairman), P Cooper, GW Dempster, T Skweyiya, RJA Sparks

Company Secretary: RA Venter

Imperial Logistics Place, 79 Boeing Road East, Bedfordview, 2008 | PO Box 3013, Edenvale, 1610
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APPENDIX C – Research instrument

SURVEY QUESTIONNAIRE

Part I. Demographic Profile
Name: _____(optional)
Certification: ( ) CA(SA) ( ) CFA ( ) ACCA ( ) CIMA ( ) CIA
Other: please specify, _____
Highest Educational Background:
( ) Bachelor ( ) Master's Degree ( ) Doctoral Program
Company Name: _____ Position: _____

Please check your field of specialization.

____Audit and Assurance ____ Corporate Reporting
____ Financial Management _____ Education
____ Strategic Planning and Performance Management
____ Tax ____ Governance, risk and ethics
____ Other

Part II of the questionnaire examines the level of awareness of the professional accountants on blockchain technology. Please specify your level of awareness

1 Not at all aware *2* Slightly Aware *3* Somewhat Aware
4 Moderately Aware *5* Strongly Aware

What is your understanding of blockchain technology?

Definition: Blockchain technology is a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed.
Benefits: near real-time settlement (saves time), low cost (no central hub computer required), traceability (clear audit trail- transactions recorded in multiple nodes), encryption (no 3rd party), accuracy (all parties need to agree), distributed ledger (impossible to change peer-to-peer records), reliability (functions all the time even with one system failure – distributed network)

Accounting tasks

1. Which accounting tasks are manual?
2. How long do these manual accounting tasks take (hours a day?)
3. How frequent are these tasks done (daily, weekly, monthly?)
4. How will automating of accounting tasks impact your work schedule?
5. Which tasks can be automated with blockchain technology?

Part III of the questionnaire determines the level of likelihood that blockchain technology will impact the accounting profession. The items will be rated using a 5-point Likert scale ranging from:

Scale	*Description*
1	Extremely Unlikely
2	Unlikely
3	Neutral
4	Likely
5	Extremely Likely

Descriptions	1	2	3	4	5
1. Blockchain-based accounting will reduce the auditing costs and time.					
2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology.					
3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals".					
4. Blockchain will be programmed that unusual patterns transactions can be checked immediately.					
5. Blockchain will be capable to provide a real-time alerting schema to detect fraud.					
6. Blockchain can increase the operational efficiency of the business.					
7. Digital currency index will be the key to transparency in cryptocurrency transactions.					
8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants					
9. Many leading organizations considers digital transformation as a part of their strategic goals					
10. Technology disruption is evolving due to employee and customer expectations, values and behavior.					

Part IV of the questionnaire examines the effect of the perceived usefulness, perceived to use; and technology fit task to behavior intention to use blockchain technology. The items will be rated using a 5-point Likert scale ranging from:

Scale	*Description*
1	Definitely Wouldn't Use
2	Wouldn't Use
3	Might Use
4	Probably Would Use
5	Definitely Would Use

	1	2	3	4	5
Behaviour Intention					
1. I intend to use blockchain technology in accounting and/or other business processes.					
2. I am hoping to use blockchain technology in accounting and/or other business processes.					
3. I will continue to use blockchain technology in accounting and/or other business processes.					
Perceived Usefulness 1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree					
4. Blockchain technology is the next-generation business process improvement software.					
5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust."					
Perceived Ease of Use					
6. Blockchain is a special business process that makes work more efficiently and effectively.					
7. Transactions submitted to a public ledger do not need third party validation.					
Technology Task Fit					
8. Blockchain-based accounting will greatly reduce time and costs of performing auditing					
9. Use of blockchain greatly simplifies integrity verification procedures					
10. Blockchain enables a real-time fraud detection scheme					

APPENDIX D – Ethics approval

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Private Bag 3 Wits, 2050
Fax: 0270865535224
Tel: 02711 7173582

Reference: Ms Jennifer Mgolodela
E-mail: jennifer.mgolodela@wits.ac.za

21 October 2019
Person No: 691295
PAG

Mr SD Malinga
15 Republic Road
Eastleigh
1609
South Africa

Dear Mr Sibusiso Malinga

Master of Management: Approval of Title

We have pleasure in advising that your proposal entitled *Blockchain technology: an examination of use-cases in the accounting profession* has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Marike Bosman
Faculty Registrar
Faculty of Commerce, Law and Management

APPENDIX E – Frequencies and Constabulation

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	F	14	66.7	66.7	66.7
	M	7	33.3	33.3	100.0
	Total	21	100.0	100.0	

Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B	3	14.3	14.3	14.3
	C	2	9.5	9.5	23.8
	I	7	33.3	33.3	57.1
	W	9	42.9	42.9	100.0
	Total	21	100.0	100.0	

Certification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CA(SA)	8	38.1	38.1	38.1
	CA(SA) and CFA	1	4.8	4.8	42.9
	Other	10	47.6	47.6	90.5
	SAIPA	2	9.5	9.5	100.0
	Total	21	100.0	100.0	

Highest educational background

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelors	8	38.1	38.1	38.1
	Honours	9	42.9	42.9	81.0
	Masters	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

Area of specialisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Audit and Assurance	2	9.5	9.5	9.5
	Corporate reporting	8	38.1	38.1	47.6
	Financial Management	7	33.3	33.3	81.0
	Tax	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

What is your understanding of blockchain technology?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all aware	8	38.1	38.1	38.1
	Slightly aware	3	14.3	14.3	52.4
	Somewhat aware	4	19.0	19.0	71.4
	Moderately aware	6	28.6	28.6	100.0
	Total	21	100.0	100.0	

1. Blockchain-based accounting will reduce the auditing costs and time.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Unlikely	1	4.8	4.8	4.8
	Unlikely	1	4.8	4.8	9.5
	Neutral	1	4.8	4.8	14.3
	Likely	10	47.6	47.6	61.9
	Extremely Likely	8	38.1	38.1	100.0
	Total	21	100.0	100.0	

2. Simplify the procedures in the accounting data verification by using blockchain-based accounting technology.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	3	14.3	14.3	14.3
	Likely	15	71.4	71.4	85.7
	Extremely Likely	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals".

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	4	19.0	19.0	19.0
	Likely	15	71.4	71.4	90.5
	Extremely Likely	2	9.5	9.5	100.0
	Total	21	100.0	100.0	

4. Blockchain will be programmed so that unusual patterns transactions can be checked immediately.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	1	4.8	4.8	4.8
	Likely	11	52.4	52.4	57.1
	Extremely Likely	9	42.9	42.9	100.0
	Total	21	100.0	100.0	

5. Blockchain will be able to provide a real-time alerting schema to detect fraud.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unlikely	1	4.8	4.8	4.8
	Neutral	5	23.8	23.8	28.6
	Likely	9	42.9	42.9	71.4
	Extremely Likely	6	28.6	28.6	100.0
	Total	21	100.0	100.0	

6. Blockchain can increase the operational efficiency of the business.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	1	4.8	4.8	4.8
	Likely	13	61.9	61.9	66.7
	Extremely Likely	7	33.3	33.3	100.0
	Total	21	100.0	100.0	

7. A digital currency index will be the key to transparency in cryptocurrency transactions.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	9	42.9	42.9	42.9
	Likely	10	47.6	47.6	90.5
	Extremely Likely	2	9.5	9.5	100.0
	Total	21	100.0	100.0	

8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unlikely	1	4.8	4.8	4.8
	Neutral	2	9.5	9.5	14.3
	Likely	11	52.4	52.4	66.7
	Extremely Likely	7	33.3	33.3	100.0
	Total	21	100.0	100.0	

9. Many leading organisations consider digital transformation as a part of their strategic goals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unlikely	1	4.8	4.8	4.8
	Neutral	2	9.5	9.5	14.3
	Likely	6	28.6	28.6	42.9
	Extremely Likely	12	57.1	57.1	100.0
	Total	21	100.0	100.0	

10. Technology disruption is evolving due to employee and customer expectations, values and behaviour.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Likely	11	52.4	52.4	52.4
	Extremely Likely	10	47.6	47.6	100.0
	Total	21	100.0	100.0	

1. I intend to use blockchain technology in accounting and/or other business processes.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Might Use	2	9.5	9.5	9.5
	Probably Would Use	16	76.2	76.2	85.7
	Definitely Would Use	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

2. I am hoping to use blockchain technology in accounting and/or other business processes.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Might Use	2	9.5	9.5	9.5
	Probably Would Use	13	61.9	61.9	71.4
	Definitely Would Use	6	28.6	28.6	100.0
	Total	21	100.0	100.0	

3. I will continue to use blockchain technology in accounting and/or other business processes.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Might Use	5	23.8	23.8	23.8
	Probably Would Use	11	52.4	52.4	76.2
	Definitely Would Use	5	23.8	23.8	100.0
	Total	21	100.0	100.0	

4. Blockchain technology is the next-generation business process improvement software.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	3	14.3	14.3	14.3
	Agree	12	57.1	57.1	71.4
	Strongly Agree	6	28.6	28.6	100.0
	Total	21	100.0	100.0	

5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust."

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	4.8	4.8	4.8
	Agree	17	81.0	81.0	85.7
	Strongly Agree	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

6. Blockchain is a special business process that makes work more efficient and effective.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	1	4.8	4.8	4.8
	Agree	13	61.9	61.9	66.7
	Strongly Agree	7	33.3	33.3	100.0
	Total	21	100.0	100.0	

7. Transactions submitted to a public ledger do not need third party validation.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	14.3	14.3	14.3
	Disagree	5	23.8	23.8	38.1
	Neutral	8	38.1	38.1	76.2
	Agree	4	19.0	19.0	95.2
	Strongly Agree	1	4.8	4.8	100.0
	Total	21	100.0	100.0	

8. Blockchain-based accounting will greatly reduce time and costs of performing auditing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	4.8	4.8	4.8
	Neutral	1	4.8	4.8	9.5
	Agree	11	52.4	52.4	61.9
	Strongly Agree	8	38.1	38.1	100.0
	Total	21	100.0	100.0	

9. Use of blockchain greatly simplifies integrity verification procedures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	3	14.3	14.3	14.3
	Agree	8	38.1	38.1	52.4
	Strongly Agree	10	47.6	47.6	100.0
	Total	21	100.0	100.0	

10. Blockchain enables a real-time fraud detection scheme

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	4.8	4.8	4.8
	Neutral	4	19.0	19.0	23.8
	Agree	11	52.4	52.4	76.2
	Strongly Agree	5	23.8	23.8	100.0
	Total	21	100.0	100.0	

Crosstabulation

1. Blockchain-based accounting will reduce the auditing costs and time. * Gender Crosstabulation

			Gender		
			F	M	Total
1. Blockchain-based accounting will reduce the auditing costs and time.	Extremely Unlikely	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Unlikely	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Neutral	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Likely	Count	5	5	10
		% within Gender	35.7%	71.4%	47.6%
	Extremely Likely	Count	6	2	8
		% within Gender	42.9%	28.6%	38.1%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

1. Blockchain-based accounting will reduce the auditing costs and time. * Race Crosstabulation

			Race				Total
			B	C	I	W	
1. Blockchain-based accounting will reduce the auditing costs and time.	Extremely Unlikely	Count	0	0	0	1	1
		% within Race	0.0%	0.0%	0.0%	11.1%	4.8%
	Unlikely	Count	1	0	0	0	1
		% within Race	33.3%	0.0%	0.0%	0.0%	4.8%
	Neutral	Count	0	0	1	0	1
		% within Race	0.0%	0.0%	14.3%	0.0%	4.8%
	Likely	Count	1	1	3	5	10
		% within Race	33.3%	50.0%	42.9%	55.6%	47.6%
	Extremely Likely	Count	1	1	3	3	8
		% within Race	33.3%	50.0%	42.9%	33.3%	38.1%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

1. Blockchain-based accounting will reduce the auditing costs and time. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
1. Blockchain-based accounting will reduce the auditing costs and time.	Extremely Unlikely	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Unlikely	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Neutral	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Likely	Count	2	1	5	2	10
		% within Certification	25.0%	100.0%	50.0%	100.0%	47.6%
	Extremely Likely	Count	3	0	5	0	8
		% within Certification	37.5%	0.0%	50.0%	0.0%	38.1%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

1. Blockchain-based accounting will reduce the auditing costs and time. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
1. Blockchain-based accounting will reduce the auditing costs and time.	Extremely Unlikely	Count	0	0	1	1
		% within Highest educational background	0.0%	0.0%	25.0%	4.8%
	Unlikely	Count	0	1	0	1
		% within Highest educational background	0.0%	11.1%	0.0%	4.8%
	Neutral	Count	0	1	0	1
		% within Highest educational background	0.0%	11.1%	0.0%	4.8%
	Likely	Count	6	2	2	10
		% within Highest educational background	75.0%	22.2%	50.0%	47.6%
	Extremely Likely	Count	2	5	1	8
		% within Highest educational background	25.0%	55.6%	25.0%	38.1%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

1. Blockchain-based accounting will reduce the auditing costs and time. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
1. Blockchain-based accounting will reduce the auditing costs and time.	Extremely Unlikely	Count	0	0	0	1	1
		% within Area of specialisation	0.0%	0.0%	0.0%	25.0%	4.8%
	Unlikely	Count	0	1	0	0	1
		% within Area of specialisation	0.0%	12.5%	0.0%	0.0%	4.8%
	Neutral	Count	0	1	0	0	1
		% within Area of specialisation	0.0%	12.5%	0.0%	0.0%	4.8%
	Likely	Count	1	4	4	1	10
		% within Area of specialisation	50.0%	50.0%	57.1%	25.0%	47.6%
	Extremely Likely	Count	1	2	3	2	8
		% within Area of specialisation	50.0%	25.0%	42.9%	50.0%	38.1%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology. * Gender Crosstabulation

			Gender		
			F	M	Total
2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology.	Neutral	Count	2	1	3
		% within Gender	14.3%	14.3%	14.3%
	Likely	Count	9	6	15
		% within Gender	64.3%	85.7%	71.4%
	Extremely Likely	Count	3	0	3
		% within Gender	21.4%	0.0%	14.3%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology. * Race Crosstabulation

			Race				Total
			B	C	I	W	
2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology.	Neutral	Count	0	0	1	2	3
		% within Race	0.0%	0.0%	14.3%	22.2%	14.3%
	Likely	Count	3	2	5	5	15
		% within Race	100.0%	100.0%	71.4%	55.6%	71.4%
	Extremely Likely	Count	0	0	1	2	3
		% within Race	0.0%	0.0%	14.3%	22.2%	14.3%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology.	Neutral	Count	1	0	2	0	3
		% within Certification	12.5%	0.0%	20.0%	0.0%	14.3%
	Likely	Count	5	1	7	2	15
		% within Certification	62.5%	100.0%	70.0%	100.0%	71.4%
	Extremely Likely	Count	2	0	1	0	3
		% within Certification	25.0%	0.0%	10.0%	0.0%	14.3%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology.	Neutral	Count	2	0	1	3
		% within Highest educational background	25.0%	0.0%	25.0%	14.3%
	Likely	Count	6	6	3	15
		% within Highest educational background	75.0%	66.7%	75.0%	71.4%
	Extremely Likely	Count	0	3	0	3
		% within Highest educational background	0.0%	33.3%	0.0%	14.3%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
2. Simplification of the procedures in the accounting data verification by using blockchain-based accounting technology.	Neutral	Count	0	0	2	1	3
		% within Area of specialisation	0.0%	0.0%	28.6%	25.0%	14.3%
	Likely	Count	2	7	4	2	15
		% within Area of specialisation	100.0%	87.5%	57.1%	50.0%	71.4%
	Extremely Likely	Count	0	1	1	1	3
		% within Area of specialisation	0.0%	12.5%	14.3%	25.0%	14.3%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals". * Gender Crosstabulation

			Gender		
			F	M	Total
3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals".	Neutral	Count	2	2	4
		% within Gender	14.3%	28.6%	19.0%
	Likely	Count	10	5	15
		% within Gender	71.4%	71.4%	71.4%
	Extremely Likely	Count	2	0	2
		% within Gender	14.3%	0.0%	9.5%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals". * Race Crosstabulation

			Race				Total
			B	C	I	W	
3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals".	Neutral	Count	0	1	1	2	4
		% within Race	0.0%	50.0%	14.3%	22.2%	19.0%
	Likely	Count	3	1	4	7	15
		% within Race	100.0%	50.0%	57.1%	77.8%	71.4%
	Extremely Likely	Count	0	0	2	0	2
		% within Race	0.0%	0.0%	28.6%	0.0%	9.5%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals". * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals".	Neutral	Count	1	0	2	1	4
		% within Certification	12.5%	0.0%	20.0%	50.0%	19.0%
	Likely	Count	6	1	7	1	15
		% within Certification	75.0%	100.0%	70.0%	50.0%	71.4%
	Extremely Likely	Count	1	0	1	0	2
		% within Certification	12.5%	0.0%	10.0%	0.0%	9.5%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals". * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals".	Neutral	Count	2	2	0	4
		% within Highest educational background	25.0%	22.2%	0.0%	19.0%
	Likely	Count	6	5	4	15
		% within Highest educational background	75.0%	55.6%	100.0%	71.4%
	Extremely Likely	Count	0	2	0	2
		% within Highest educational background	0.0%	22.2%	0.0%	9.5%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals". * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
3. Blockchain plays a pivotal role for development to become the "system of the systems or "journal of journals".	Neutral	Count	1	2	1	0	4
		% within Area of specialisation	50.0%	25.0%	14.3%	0.0%	19.0%
	Likely	Count	0	5	6	4	15
		% within Area of specialisation	0.0%	62.5%	85.7%	100.0%	71.4%
	Extremely Likely	Count	1	1	0	0	2
		% within Area of specialisation	50.0%	12.5%	0.0%	0.0%	9.5%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

4. Blockchain will be programmed that unusual patterns transactions can be checked immediately. * Gender Crosstabulation

			Gender		
			F	M	Total
4. Blockchain will be programmed that unusual patterns transactions can be checked immediately.	Neutral	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Likely	Count	6	5	11
		% within Gender	42.9%	71.4%	52.4%
	Extremely Likely	Count	7	2	9
		% within Gender	50.0%	28.6%	42.9%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

4. Blockchain will be programmed that unusual patterns transactions can be checked immediately. * Race Crosstabulation

			Race				Total
			B	C	I	W	
4. Blockchain will be programmed that unusual patterns transactions can be checked immediately.	Neutral	Count	0	0	0	1	1
		% within Race	0.0%	0.0%	0.0%	11.1%	4.8%
	Likely	Count	1	1	4	5	11
		% within Race	33.3%	50.0%	57.1%	55.6%	52.4%
	Extremely Likely	Count	2	1	3	3	9
		% within Race	66.7%	50.0%	42.9%	33.3%	42.9%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

4. Blockchain will be programmed that unusual patterns transactions can be checked immediately. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
4. Blockchain will be programmed that unusual patterns transactions can be checked immediately.	Neutral	Count	0	0	1	0	1
		% within Certification	0.0%	0.0%	10.0%	0.0%	4.8%
	Likely	Count	4	1	4	2	11
		% within Certification	50.0%	100.0%	40.0%	100.0%	52.4%
	Extremely Likely	Count	4	0	5	0	9
		% within Certification	50.0%	0.0%	50.0%	0.0%	42.9%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

4. Blockchain will be programmed that unusual patterns transactions can be checked immediately. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
4. Blockchain will be programmed that unusual patterns transactions can be checked immediately.	Neutral	Count	1	0	0	1
		% within Highest educational background	12.5%	0.0%	0.0%	4.8%
	Likely	Count	5	4	2	11
		% within Highest educational background	62.5%	44.4%	50.0%	52.4%
	Extremely Likely	Count	2	5	2	9
		% within Highest educational background	25.0%	55.6%	50.0%	42.9%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

4. Blockchain will be programmed that unusual patterns transactions can be checked immediately. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
4. Blockchain will be programmed that unusual patterns transactions can be checked immediately.	Neutral	Count	0	0	1	0	1
		% within Area of specialisation	0.0%	0.0%	14.3%	0.0%	4.8%
	Likely	Count	1	5	3	2	11
		% within Area of specialisation	50.0%	62.5%	42.9%	50.0%	52.4%
	Extremely Likely	Count	1	3	3	2	9
		% within Area of specialisation	50.0%	37.5%	42.9%	50.0%	42.9%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

5. Blockchain will be able to provide a real-time alerting schema to detect fraud. * Gender Crosstabulation

			Gender		
			F	M	Total
5. Blockchain will be able to provide a real-time alerting schema to detect fraud.	Unlikely	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Neutral	Count	3	2	5
		% within Gender	21.4%	28.6%	23.8%
	Likely	Count	5	4	9
		% within Gender	35.7%	57.1%	42.9%
	Extremely Likely	Count	5	1	6
		% within Gender	35.7%	14.3%	28.6%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

5. Blockchain will be able to provide a real-time alerting schema to detect fraud. * Race Crosstabulation

			Race				Total
			B	C	I	W	
5. Blockchain will be able to provide a real-time alerting schema to detect fraud.	Unlikely	Count	0	0	1	0	1
		% within Race	0.0%	0.0%	14.3%	0.0%	4.8%
	Neutral	Count	2	1	2	0	5
		% within Race	66.7%	50.0%	28.6%	0.0%	23.8%
	Likely	Count	1	0	3	5	9
		% within Race	33.3%	0.0%	42.9%	55.6%	42.9%
	Extremely Likely	Count	0	1	1	4	6
		% within Race	0.0%	50.0%	14.3%	44.4%	28.6%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

5. Blockchain will be able to provide a real-time alerting schema to detect fraud. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
5. Blockchain will be able to provide a real-time alerting schema to detect fraud.	Unlikely	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Neutral	Count	2	0	2	1	5
		% within Certification	25.0%	0.0%	20.0%	50.0%	23.8%
	Likely	Count	3	1	4	1	9
		% within Certification	37.5%	100.0%	40.0%	50.0%	42.9%
	Extremely Likely	Count	2	0	4	0	6
		% within Certification	25.0%	0.0%	40.0%	0.0%	28.6%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

5. Blockchain will be able to provide a real-time alerting schema to detect fraud. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
5. Blockchain will be able to provide a real-time alerting schema to detect fraud.	Unlikely	Count	0	1	0	1
		% within Highest educational background	0.0%	11.1%	0.0%	4.8%
	Neutral	Count	1	4	0	5
		% within Highest educational background	12.5%	44.4%	0.0%	23.8%
	Likely	Count	3	2	4	9
		% within Highest educational background	37.5%	22.2%	100.0%	42.9%
	Extremely Likely	Count	4	2	0	6
		% within Highest educational background	50.0%	22.2%	0.0%	28.6%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

5. Blockchain will be able to provide a real-time alerting schema to detect fraud. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
5. Blockchain will be able to provide a real-time alerting schema to detect fraud.	Unlikely	Count	0	1	0	0	1
		% within Area of specialisation	0.0%	12.5%	0.0%	0.0%	4.8%
	Neutral	Count	2	3	0	0	5
		% within Area of specialisation	100.0%	37.5%	0.0%	0.0%	23.8%
	Likely	Count	0	3	3	3	9
		% within Area of specialisation	0.0%	37.5%	42.9%	75.0%	42.9%
	Extremely Likely	Count	0	1	4	1	6
		% within Area of specialisation	0.0%	12.5%	57.1%	25.0%	28.6%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

6. Blockchain can increase the operational efficiency of the business. * Gender Crosstabulation

			Gender		
			F	M	Total
6. Blockchain can increase the operational efficiency of the business.	Neutral	Count	0	1	1
		% within Gender	0.0%	14.3%	4.8%
	Likely	Count	9	4	13
		% within Gender	64.3%	57.1%	61.9%
	Extremely Likely	Count	5	2	7
		% within Gender	35.7%	28.6%	33.3%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

6. Blockchain can increase the operational efficiency of the business. * Race Crosstabulation

			Race				Total
			B	C	I	W	
6. Blockchain can increase the operational efficiency of the business.	Neutral	Count	0	0	1	0	1
		% within Race	0.0%	0.0%	14.3%	0.0%	4.8%
	Likely	Count	2	2	3	6	13
		% within Race	66.7%	100.0%	42.9%	66.7%	61.9%
	Extremely Likely	Count	1	0	3	3	7
		% within Race	33.3%	0.0%	42.9%	33.3%	33.3%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

6. Blockchain can increase the operational efficiency of the business. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
6. Blockchain can increase the operational efficiency of the business.	Neutral	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Likely	Count	5	0	6	2	13
		% within Certification	62.5%	0.0%	60.0%	100.0%	61.9%
	Extremely Likely	Count	2	1	4	0	7
		% within Certification	25.0%	100.0%	40.0%	0.0%	33.3%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

6. Blockchain can increase the operational efficiency of the business. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
6. Blockchain can increase the operational efficiency of the business.	Neutral	Count	0	0	1	1
		% within Highest educational background	0.0%	0.0%	25.0%	4.8%
	Likely	Count	7	4	2	13
		% within Highest educational background	87.5%	44.4%	50.0%	61.9%
	Extremely Likely	Count	1	5	1	7
		% within Highest educational background	12.5%	55.6%	25.0%	33.3%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

6. Blockchain can increase the operational efficiency of the business. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
6. Blockchain can increase the operational efficiency of the business.	Neutral	Count	0	0	0	1	1
		% within Area of specialisation	0.0%	0.0%	0.0%	25.0%	4.8%
	Likely	Count	1	6	4	2	13
		% within Area of specialisation	50.0%	75.0%	57.1%	50.0%	61.9%
	Extremely Likely	Count	1	2	3	1	7
		% within Area of specialisation	50.0%	25.0%	42.9%	25.0%	33.3%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

7. A Digital currency index will be the key to transparency in cryptocurrency transactions. * Gender Crosstabulation

			Gender		
			F	M	Total
7. A digital currency index will be the key to transparency in cryptocurrency transactions.	Neutral	Count	5	4	9
		% within Gender	35.7%	57.1%	42.9%
	Likely	Count	7	3	10
		% within Gender	50.0%	42.9%	47.6%
	Extremely Likely	Count	2	0	2
		% within Gender	14.3%	0.0%	9.5%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

7. A digital currency index will be the key to transparency in cryptocurrency transactions. * Race Crosstabulation

			Race				Total
			B	C	I	W	
7. A dDigital currency index will be the key to transparency in cryptocurrency transactions.	Neutral	Count	3	1	2	3	9
		% within Race	100.0%	50.0%	28.6%	33.3%	42.9%
	Likely	Count	0	1	4	5	10
		% within Race	0.0%	50.0%	57.1%	55.6%	47.6%
	Extremely Likely	Count	0	0	1	1	2
		% within Race	0.0%	0.0%	14.3%	11.1%	9.5%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

7. A digital currency index will be the key to transparency in cryptocurrency transactions. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
7. A digital currency index will be the key to transparency in cryptocurrency transactions.	Neutral	Count	2	1	4	2	9
		% within Certification	25.0%	100.0%	40.0%	100.0%	42.9%
	Likely	Count	5	0	5	0	10
		% within Certification	62.5%	0.0%	50.0%	0.0%	47.6%
	Extremely Likely	Count	1	0	1	0	2
		% within Certification	12.5%	0.0%	10.0%	0.0%	9.5%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

7. A digital currency index will be the key to transparency in cryptocurrency transactions. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
7. A digital currency index will be the key to transparency in cryptocurrency transactions.	Neutral	Count	3	4	2	9
		% within Highest educational background	37.5%	44.4%	50.0%	42.9%
	Likely	Count	5	3	2	10
		% within Highest educational background	62.5%	33.3%	50.0%	47.6%
	Extremely Likely	Count	0	2	0	2
		% within Highest educational background	0.0%	22.2%	0.0%	9.5%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

7. A digital currency index will be the key to transparency in cryptocurrency transactions. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
7. A digital currency index will be the key to transparency in cryptocurrency transactions.	Neutral	Count	1	4	2	2	9
		% within Area of specialisation	50.0%	50.0%	28.6%	50.0%	42.9%
	Likely	Count	0	4	4	2	10
		% within Area of specialisation	0.0%	50.0%	57.1%	50.0%	47.6%
	Extremely Likely	Count	1	0	1	0	2
		% within Area of specialisation	50.0%	0.0%	14.3%	0.0%	9.5%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants * Gender Crosstabulation

			Gender		
			F	M	Total
8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants	Unlikely	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Neutral	Count	0	2	2
		% within Gender	0.0%	28.6%	9.5%
	Likely	Count	8	3	11
		% within Gender	57.1%	42.9%	52.4%
	Extremely Likely	Count	5	2	7
		% within Gender	35.7%	28.6%	33.3%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants * Race Crosstabulation

			Race				Total
			B	C	I	W	
8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants	Unlikely	Count	0	0	1	0	1
		% within Race	0.0%	0.0%	14.3%	0.0%	4.8%
	Neutral	Count	0	0	2	0	2
		% within Race	0.0%	0.0%	28.6%	0.0%	9.5%
	Likely	Count	2	1	1	7	11
		% within Race	66.7%	50.0%	14.3%	77.8%	52.4%
	Extremely Likely	Count	1	1	3	2	7
		% within Race	33.3%	50.0%	42.9%	22.2%	33.3%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants	Unlikely	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Neutral	Count	2	0	0	0	2
		% within Certification	25.0%	0.0%	0.0%	0.0%	9.5%
	Likely	Count	2	1	7	1	11
		% within Certification	25.0%	100.0%	70.0%	50.0%	52.4%
	Extremely Likely	Count	3	0	3	1	7
		% within Certification	37.5%	0.0%	30.0%	50.0%	33.3%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants	Unlikely	Count	0	1	0	1
		% within Highest educational background	0.0%	11.1%	0.0%	4.8%
	Neutral	Count	0	1	1	2
		% within Highest educational background	0.0%	11.1%	25.0%	9.5%
	Likely	Count	6	3	2	11
		% within Highest educational background	75.0%	33.3%	50.0%	52.4%
	Extremely Likely	Count	2	4	1	7
		% within Highest educational background	25.0%	44.4%	25.0%	33.3%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
8. The high level of trustworthiness of accounting information in blockchain technology regime will alter the role of accountants	Unlikely	Count	0	1	0	0	1
		% within Area of specialisation	0.0%	12.5%	0.0%	0.0%	4.8%
	Neutral	Count	0	1	0	1	2
		% within Area of specialisation	0.0%	12.5%	0.0%	25.0%	9.5%
	Likely	Count	0	3	5	3	11
		% within Area of specialisation	0.0%	37.5%	71.4%	75.0%	52.4%
	Extremely Likely	Count	2	3	2	0	7
		% within Area of specialisation	100.0%	37.5%	28.6%	0.0%	33.3%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

9. Many leading organisations consider digital transformation as a part of their strategic goals * Gender Crosstabulation

			Gender		
			F	M	Total
9. Many leading organisations consider digital transformation as a part of their strategic goals	Unlikely	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Neutral	Count	0	2	2
		% within Gender	0.0%	28.6%	9.5%
	Likely	Count	5	1	6
		% within Gender	35.7%	14.3%	28.6%
	Extremely Likely	Count	8	4	12
		% within Gender	57.1%	57.1%	57.1%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

9. Many leading organisations consider digital transformation as a part of their strategic goals * Race Crosstabulation

			Race				Total
			B	C	I	W	
9. Many leading organisations consider digital transformation as a part of their strategic goals	Unlikely	Count	0	0	0	1	1
		% within Race	0.0%	0.0%	0.0%	11.1%	4.8%
	Neutral	Count	1	0	0	1	2
		% within Race	33.3%	0.0%	0.0%	11.1%	9.5%
	Likely	Count	0	1	2	3	6
		% within Race	0.0%	50.0%	28.6%	33.3%	28.6%
	Extremely Likely	Count	2	1	5	4	12
		% within Race	66.7%	50.0%	71.4%	44.4%	57.1%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

9. Many leading organisations consider digital transformation as a part of their strategic goals * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
9. Many leading organisations consider digital transformation as a part of their strategic goals	Unlikely	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Neutral	Count	0	0	1	1	2
		% within Certification	0.0%	0.0%	10.0%	50.0%	9.5%
	Likely	Count	2	0	3	1	6
		% within Certification	25.0%	0.0%	30.0%	50.0%	28.6%
	Extremely Likely	Count	5	1	6	0	12
		% within Certification	62.5%	100.0%	60.0%	0.0%	57.1%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

9. Many leading organisations consider digital transformation as a part of their strategic goals * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
9. Many leading organisations consider digital transformation as a part of their strategic goals	Unlikely	Count	0	1	0	1
		% within Highest educational background	0.0%	11.1%	0.0%	4.8%
	Neutral	Count	2	0	0	2
		% within Highest educational background	25.0%	0.0%	0.0%	9.5%
	Likely	Count	3	1	2	6
		% within Highest educational background	37.5%	11.1%	50.0%	28.6%
	Extremely Likely	Count	3	7	2	12
		% within Highest educational background	37.5%	77.8%	50.0%	57.1%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

9. Many leading organisations consider digital transformation as a part of their strategic goals * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
9. Many leading organisations consider digital transformation as a part of their strategic goals	Unlikely	Count	0	0	1	0	1
		% within Area of specialisation	0.0%	0.0%	14.3%	0.0%	4.8%
	Neutral	Count	0	1	1	0	2
		% within Area of specialisation	0.0%	12.5%	14.3%	0.0%	9.5%
	Likely	Count	1	1	1	3	6
		% within Area of specialisation	50.0%	12.5%	14.3%	75.0%	28.6%
	Extremely Likely	Count	1	6	4	1	12
		% within Area of specialisation	50.0%	75.0%	57.1%	25.0%	57.1%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

10. Technology disruption is evolving due to employee and customer expectations, values and behaviour. * Gender Crosstabulation

			Gender		
			F	M	Total
10. Technology disruption is evolving due to employee and customer expectations, values and behaviour.	Likely	Count	7	4	11
		% within Gender	50.0%	57.1%	52.4%
	Extremely Likely	Count	7	3	10
		% within Gender	50.0%	42.9%	47.6%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

10. Technology disruption is evolving due to employee and customer expectations, values and behaviour. * Race Crosstabulation

			Race				Total
			B	C	I	W	
10. Technology disruption is evolving due to employee and customer expectations, values and behaviour.	Likely	Count	2	0	3	6	11
		% within Race	66.7%	0.0%	42.9%	66.7%	52.4%
	Extremely Likely	Count	1	2	4	3	10
		% within Race	33.3%	100.0%	57.1%	33.3%	47.6%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

10. Technology disruption is evolving due to employee and customer expectations, values and behaviour. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
10. Technology disruption is evolving due to employee and customer expectations, values and behaviour.	Likely	Count	6	0	3	2	11
		% within Certification	75.0%	0.0%	30.0%	100.0%	52.4%
	Extremely Likely	Count	2	1	7	0	10
		% within Certification	25.0%	100.0%	70.0%	0.0%	47.6%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

10. Technology disruption is evolving due to employee and customer expectations, values and behaviour. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
10. Technology disruption is evolving due to employee and customer expectations, values and behaviour.	Likely	Count	5	3	3	11
		% within Highest educational background	62.5%	33.3%	75.0%	52.4%
	Extremely Likely	Count	3	6	1	10
		% within Highest educational background	37.5%	66.7%	25.0%	47.6%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

10. Technology disruption is evolving due to employee and customer expectations, values and behaviour. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
10. Technology disruption is evolving due to employee and customer expectations, values and behaviour.	Likely	Count	0	5	4	2	11
		% within Area of specialisation	0.0%	62.5%	57.1%	50.0%	52.4%
	Extremely Likely	Count	2	3	3	2	10
		% within Area of specialisation	100.0%	37.5%	42.9%	50.0%	47.6%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

1. I intend to use blockchain technology in accounting and/or other business processes. * Gender Crosstabulation

			Gender		
			F	M	Total
1. I intend to use blockchain technology in accounting and/or other business processes.	Might Use	Count	2	0	2
		% within Gender	14.3%	0.0%	9.5%
	Probably Would Use	Count	10	6	16
		% within Gender	71.4%	85.7%	76.2%
	Definitely Would Use	Count	2	1	3
		% within Gender	14.3%	14.3%	14.3%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

1. I intend to use blockchain technology in accounting and/or other business processes. * Race Crosstabulation

			Race				Total
			B	C	I	W	
1. I intend to use blockchain technology in accounting and/or other business processes.	Might Use	Count	0	1	1	0	2
		% within Race	0.0%	50.0%	14.3%	0.0%	9.5%
	Probably Would Use	Count	2	1	5	8	16
		% within Race	66.7%	50.0%	71.4%	88.9%	76.2%
	Definitely Would Use	Count	1	0	1	1	3
		% within Race	33.3%	0.0%	14.3%	11.1%	14.3%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

1. I intend to use blockchain technology in accounting and/or other business processes. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
1. I intend to use blockchain technology in accounting and/or other business processes.	Might Use	Count	1	0	1	0	2
		% within Certification	12.5%	0.0%	10.0%	0.0%	9.5%
	Probably Would Use	Count	5	1	9	1	16
		% within Certification	62.5%	100.0%	90.0%	50.0%	76.2%
	Definitely Would Use	Count	2	0	0	1	3
		% within Certification	25.0%	0.0%	0.0%	50.0%	14.3%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

1. I intend to use blockchain technology in accounting and/or other business processes. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
1. I intend to use blockchain technology in accounting and/or other business processes.	Might Use	Count	0	2	0	2
		% within Highest educational background	0.0%	22.2%	0.0%	9.5%
	Probably Would Use	Count	7	6	3	16
		% within Highest educational background	87.5%	66.7%	75.0%	76.2%
	Definitely Would Use	Count	1	1	1	3
		% within Highest educational background	12.5%	11.1%	25.0%	14.3%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

1. I intend to use blockchain technology in accounting and/or other business processes. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
1. I intend to use blockchain technology in accounting and/or other business processes.	Might Use	Count	1	1	0	0	2
		% within Area of specialisation	50.0%	12.5%	0.0%	0.0%	9.5%
	Probably Would Use	Count	1	5	7	3	16
		% within Area of specialisation	50.0%	62.5%	100.0%	75.0%	76.2%
	Definitely Would Use	Count	0	2	0	1	3
		% within Area of specialisation	0.0%	25.0%	0.0%	25.0%	14.3%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

2. I am hoping to use blockchain technology in accounting and/or other business processes. * Gender Crosstabulation

			Gender		
			F	M	Total
2. I am hoping to use blockchain technology in accounting and/or other business processes.	Might Use	Count	2	0	2
		% within Gender	14.3%	0.0%	9.5%
	Probably Would Use	Count	8	5	13
		% within Gender	57.1%	71.4%	61.9%
	Definitely Would Use	Count	4	2	6
		% within Gender	28.6%	28.6%	28.6%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

2. I am hoping to use blockchain technology in accounting and/or other business processes. * Race Crosstabulation

			Race				Total
			B	C	I	W	
2. I am hoping to use blockchain technology in accounting and/or other business processes.	Might Use	Count	0	0	0	2	2
		% within Race	0.0%	0.0%	0.0%	22.2%	9.5%
	Probably Would Use	Count	1	2	5	5	13
		% within Race	33.3%	100.0%	71.4%	55.6%	61.9%
	Definitely Would Use	Count	2	0	2	2	6
		% within Race	66.7%	0.0%	28.6%	22.2%	28.6%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

2. I am hoping to use blockchain technology in accounting and/or other business processes. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
2. I am hoping to use blockchain technology in accounting and/or other business processes.	Might Use	Count	1	0	1	0	2
		% within Certification	12.5%	0.0%	10.0%	0.0%	9.5%
	Probably Would Use	Count	5	1	6	1	13
		% within Certification	62.5%	100.0%	60.0%	50.0%	61.9%
	Definitely Would Use	Count	2	0	3	1	6
		% within Certification	25.0%	0.0%	30.0%	50.0%	28.6%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

2. I am hoping to use blockchain technology in accounting and/or other business processes. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
2. I am hoping to use blockchain technology in accounting and/or other business processes.	Might Use	Count	1	1	0	2
		% within Highest educational background	12.5%	11.1%	0.0%	9.5%
	Probably Would Use	Count	5	6	2	13
		% within Highest educational background	62.5%	66.7%	50.0%	61.9%
	Definitely Would Use	Count	2	2	2	6
		% within Highest educational background	25.0%	22.2%	50.0%	28.6%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

2. I am hoping to use blockchain technology in accounting and/or other business processes. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
2. I am hoping to use blockchain technology in accounting and/or other business processes.	Might Use	Count	0	0	2	0	2
		% within Area of specialisation	0.0%	0.0%	28.6%	0.0%	9.5%
	Probably Would Use	Count	1	6	3	3	13
		% within Area of specialisation	50.0%	75.0%	42.9%	75.0%	61.9%
	Definitely Would Use	Count	1	2	2	1	6
		% within Area of specialisation	50.0%	25.0%	28.6%	25.0%	28.6%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

3. I will continue to use blockchain technology in accounting and/or other business processes. * Gender Crosstabulation

			Gender		
			F	M	Total
3. I will continue to use blockchain technology in accounting and/or other business processes.	Might Use	Count	3	2	5
		% within Gender	21.4%	28.6%	23.8%
	Probably Would Use	Count	7	4	11
		% within Gender	50.0%	57.1%	52.4%
	Definitely Would Use	Count	4	1	5
		% within Gender	28.6%	14.3%	23.8%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

3. I will continue to use blockchain technology in accounting and/or other business processes. * Race Crosstabulation

			Race				Total
			B	C	I	W	
3. I will continue to use blockchain technology in accounting and/or other business processes.	Might Use	Count	0	1	3	1	5
		% within Race	0.0%	50.0%	42.9%	11.1%	23.8%
	Probably Would Use	Count	2	1	3	5	11
		% within Race	66.7%	50.0%	42.9%	55.6%	52.4%
	Definitely Would Use	Count	1	0	1	3	5
		% within Race	33.3%	0.0%	14.3%	33.3%	23.8%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

3. I will continue to use blockchain technology in accounting and/or other business processes. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
3. I will continue to use blockchain technology in accounting and/or other business processes.	Might Use	Count	1	1	2	1	5
		% within Certification	12.5%	100.0%	20.0%	50.0%	23.8%
	Probably Would USe	Count	5	0	6	0	11
		% within Certification	62.5%	0.0%	60.0%	0.0%	52.4%
	Definitely Would Use	Count	2	0	2	1	5
		% within Certification	25.0%	0.0%	20.0%	50.0%	23.8%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

3. I will continue to use blockchain technology in accounting and/or other business processes. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
3. I will continue to use blockchain technology in accounting and/or other business processes.	Might Use	Count	1	3	1	5
		% within Highest educational background	12.5%	33.3%	25.0%	23.8%
	Probably Would Use	Count	4	5	2	11
		% within Highest educational background	50.0%	55.6%	50.0%	52.4%
	Definitely Would Use	Count	3	1	1	5
		% within Highest educational background	37.5%	11.1%	25.0%	23.8%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

3. I will continue to use blockchain technology in accounting and/or other business processes. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
3. I will continue to use blockchain technology in accounting and/or other business processes.	Might Use	Count	2	3	0	0	5
		% within Area of specialisation	100.0%	37.5%	0.0%	0.0%	23.8%
	Probably Would Use	Count	0	3	5	3	11
		% within Area of specialisation	0.0%	37.5%	71.4%	75.0%	52.4%
	Definitely Would Use	Count	0	2	2	1	5
		% within Area of specialisation	0.0%	25.0%	28.6%	25.0%	23.8%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

4. Blockchain technology is the next-generation business process improvement software. * Gender Crosstabulation

			Gender		
			F	M	Total
4. Blockchain technology is the next-generation business process improvement software.	Neutral	Count	1	2	3
		% within Gender	7.1%	28.6%	14.3%
	Agree	Count	9	3	12
		% within Gender	64.3%	42.9%	57.1%
	Strongly Agree	Count	4	2	6
		% within Gender	28.6%	28.6%	28.6%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

4. Blockchain technology is the next-generation business process improvement software. * Race Crosstabulation

			Race				Total
			B	C	I	W	
4. Blockchain technology is the next-generation business process improvement software.	Neutral	Count	0	0	1	2	3
		% within Race	0.0%	0.0%	14.3%	22.2%	14.3%
	Agree	Count	2	1	3	6	12
		% within Race	66.7%	50.0%	42.9%	66.7%	57.1%
	Strongly Agree	Count	1	1	3	1	6
		% within Race	33.3%	50.0%	42.9%	11.1%	28.6%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

4. Blockchain technology is the next-generation business process improvement software. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
4. Blockchain technology is the next-generation business process improvement software.	Neutral	Count	1	0	1	1	3
		% within Certification	12.5%	0.0%	10.0%	50.0%	14.3%
	Agree	Count	5	0	7	0	12
		% within Certification	62.5%	0.0%	70.0%	0.0%	57.1%
	Strongly Agree	Count	2	1	2	1	6
		% within Certification	25.0%	100.0%	20.0%	50.0%	28.6%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

4. Blockchain technology is the next-generation business process improvement software. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
4. Blockchain technology is the next-generation business process improvement software.	Neutral	Count	2	1	0	3
		% within Highest educational background	25.0%	11.1%	0.0%	14.3%
	Agree	Count	4	4	4	12
		% within Highest educational background	50.0%	44.4%	100.0%	57.1%
	Strongly Agree	Count	2	4	0	6
		% within Highest educational background	25.0%	44.4%	0.0%	28.6%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

4. Blockchain technology is the next-generation business process improvement software. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
4. Blockchain technology is the next-generation business process improvement software.	Neutral	Count	0	2	1	0	3
		% within Area of specialisation	0.0%	25.0%	14.3%	0.0%	14.3%
	Agree	Count	1	3	5	3	12
		% within Area of specialisation	50.0%	37.5%	71.4%	75.0%	57.1%
	Strongly Agree	Count	1	3	1	1	6
		% within Area of specialisation	50.0%	37.5%	14.3%	25.0%	28.6%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust." * Gender Crosstabulation

			Gender		
			F	M	Total
5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust."	Disagree	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Agree	Count	11	6	17
		% within Gender	78.6%	85.7%	81.0%
	Strongly Agree	Count	2	1	3
		% within Gender	14.3%	14.3%	14.3%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust." * Race Crosstabulation

			Race				Total
			B	C	I	W	
5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust."	Disagree	Count	1	0	0	0	1
		% within Race	33.3%	0.0%	0.0%	0.0%	4.8%
	Agree	Count	1	2	6	8	17
		% within Race	33.3%	100.0%	85.7%	88.9%	81.0%
	Strongly Agree	Count	1	0	1	1	3
		% within Race	33.3%	0.0%	14.3%	11.1%	14.3%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust." * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust."	Disagree	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Agree	Count	5	1	9	2	17
		% within Certification	62.5%	100.0%	90.0%	100.0%	81.0%
	Strongly Agree	Count	2	0	1	0	3
		% within Certification	25.0%	0.0%	10.0%	0.0%	14.3%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust." * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust."	Disagree	Count	0	1	0	1
		% within Highest educational background	0.0%	11.1%	0.0%	4.8%
	Agree	Count	8	6	3	17
		% within Highest educational background	100.0%	66.7%	75.0%	81.0%
	Strongly Agree	Count	0	2	1	3
		% within Highest educational background	0.0%	22.2%	25.0%	14.3%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust." * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
5. Blockchain intends to improve the business processes that occur between companies, radically lowering the "cost of trust."	Disagree	Count	0	1	0	0	1
		% within Area of specialisation	0.0%	12.5%	0.0%	0.0%	4.8%
	Agree	Count	2	6	5	4	17
		% within Area of specialisation	100.0%	75.0%	71.4%	100.0%	81.0%
	Strongly Agree	Count	0	1	2	0	3
		% within Area of specialisation	0.0%	12.5%	28.6%	0.0%	14.3%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

6. Blockchain is a special business process that makes work more efficient and effective. * Gender Crosstabulation

			Gender		
			F	M	Total
6. Blockchain is a special business process that makes work more efficient and effective.	Neutral	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Agree	Count	6	7	13
		% within Gender	42.9%	100.0%	61.9%
	Strongly Agree	Count	7	0	7
		% within Gender	50.0%	0.0%	33.3%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

6. Blockchain is a special business process that makes work more efficient and effective. * Race Crosstabulation

			Race				Total
			B	C	I	W	
6. Blockchain is a special business process that makes work more efficient and effective.	Neutral	Count	0	0	0	1	1
		% within Race	0.0%	0.0%	0.0%	11.1%	4.8%
	Agree	Count	3	2	5	3	13
		% within Race	100.0%	100.0%	71.4%	33.3%	61.9%
	Strongly Agree	Count	0	0	2	5	7
		% within Race	0.0%	0.0%	28.6%	55.6%	33.3%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

6. Blockchain is a special business process that makes work more efficient and effective. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
6. Blockchain is a special business process that makes work more efficient and effective.	Neutral	Count	0	0	1	0	1
		% within Certification	0.0%	0.0%	10.0%	0.0%	4.8%
	Agree	Count	6	1	4	2	13
		% within Certification	75.0%	100.0%	40.0%	100.0%	61.9%
	Strongly Agree	Count	2	0	5	0	7
		% within Certification	25.0%	0.0%	50.0%	0.0%	33.3%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

6. Blockchain is a special business process that makes work more efficient and effective. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
6. Blockchain is a special business process that makes work more efficient and effective.	Neutral	Count	1	0	0	1
		% within Highest educational background	12.5%	0.0%	0.0%	4.8%
	Agree	Count	4	5	4	13
		% within Highest educational background	50.0%	55.6%	100.0%	61.9%
	Strongly Agree	Count	3	4	0	7
		% within Highest educational background	37.5%	44.4%	0.0%	33.3%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

6. Blockchain is a special business process that makes work more efficient and effective. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
6. Blockchain is a special business process that makes work more efficiently and effectively.	Neutral	Count	0	0	1	0	1
		% within Area of specialisation	0.0%	0.0%	14.3%	0.0%	4.8%
	Agree	Count	1	7	2	3	13
		% within Area of specialisation	50.0%	87.5%	28.6%	75.0%	61.9%
	Strongly Agree	Count	1	1	4	1	7
		% within Area of specialisation	50.0%	12.5%	57.1%	25.0%	33.3%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

7. Transactions submitted to a public ledger do not need third party validation. * Gender Crosstabulation

			Gender		
			F	M	Total
7. Transactions submitted to a public ledger do not need third party validation.	Strongly Disagree	Count	3	0	3
		% within Gender	21.4%	0.0%	14.3%
	Disagree	Count	2	3	5
		% within Gender	14.3%	42.9%	23.8%
	Neutral	Count	7	1	8
		% within Gender	50.0%	14.3%	38.1%
	Agree	Count	2	2	4
		% within Gender	14.3%	28.6%	19.0%
	Strongly Agree	Count	0	1	1
		% within Gender	0.0%	14.3%	4.8%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

7. Transactions submitted to a public ledger do not need third party validation. * Race Crosstabulation

			Race				Total
			B	C	I	W	
7. Transactions submitted to a public ledger do not need third party validation.	Strongly Disagree	Count	0	1	0	2	3
		% within Race	0.0%	50.0%	0.0%	22.2%	14.3%
	Disagree	Count	1	0	4	0	5
		% within Race	33.3%	0.0%	57.1%	0.0%	23.8%
	Neutral	Count	1	0	2	5	8
		% within Race	33.3%	0.0%	28.6%	55.6%	38.1%
	Agree	Count	0	1	1	2	4
		% within Race	0.0%	50.0%	14.3%	22.2%	19.0%
	Strongly Agree	Count	1	0	0	0	1
		% within Race	33.3%	0.0%	0.0%	0.0%	4.8%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

7. Transactions submitted to a public ledger do not need third party validation. * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
7. Transactions submitted to a public ledger do not need third party validation.	Strongly Disagree	Count	1	0	2	0	3
		% within Certification	12.5%	0.0%	20.0%	0.0%	14.3%
	Disagree	Count	2	1	1	1	5
		% within Certification	25.0%	100.0%	10.0%	50.0%	23.8%
	Neutral	Count	4	0	3	1	8
		% within Certification	50.0%	0.0%	30.0%	50.0%	38.1%
	Agree	Count	1	0	3	0	4
		% within Certification	12.5%	0.0%	30.0%	0.0%	19.0%
	Strongly Agree	Count	0	0	1	0	1
		% within Certification	0.0%	0.0%	10.0%	0.0%	4.8%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

7. Transactions submitted to a public ledger do not need third party validation. * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
7. Transactions submitted to a public ledger do not need third party validation.	Strongly Disagree	Count	1	2	0	3
		% within Highest educational background	12.5%	22.2%	0.0%	14.3%
	Disagree	Count	1	3	1	5
		% within Highest educational background	12.5%	33.3%	25.0%	23.8%
	Neutral	Count	3	4	1	8
		% within Highest educational background	37.5%	44.4%	25.0%	38.1%
	Agree	Count	3	0	1	4
		% within Highest educational background	37.5%	0.0%	25.0%	19.0%
	Strongly Agree	Count	0	0	1	1
		% within Highest educational background	0.0%	0.0%	25.0%	4.8%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

7. Transactions submitted to a public ledger do not need third party validation. * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
7. Transactions submitted to a public ledger do not need third party validation.	Strongly Disagree	Count	1	0	2	0	3
		% within Area of specialisation	50.0%	0.0%	28.6%	0.0%	14.3%
	Disagree	Count	1	3	0	1	5
		% within Area of specialisation	50.0%	37.5%	0.0%	25.0%	23.8%
	Neutral	Count	0	4	2	2	8
		% within Area of specialisation	0.0%	50.0%	28.6%	50.0%	38.1%
	Agree	Count	0	1	2	1	4
		% within Area of specialisation	0.0%	12.5%	28.6%	25.0%	19.0%
	Strongly Agree	Count	0	0	1	0	1
		% within Area of specialisation	0.0%	0.0%	14.3%	0.0%	4.8%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

8. Blockchain-based accounting will greatly reduce time and costs of performing auditing * Gender Crosstabulation

			Gender		
			F	M	Total
8. Blockchain-based accounting will greatly reduce time and costs of performing auditing	Disagree	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Neutral	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Agree	Count	5	6	11
		% within Gender	35.7%	85.7%	52.4%
	Strongly Agree	Count	7	1	8
		% within Gender	50.0%	14.3%	38.1%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

8. Blockchain-based accounting will greatly reduce time and costs of performing auditing * Race Crosstabulation

			Race				Total
			B	C	I	W	
8. Blockchain-based accounting will greatly reduce time and costs of performing auditing	Disagree	Count	0	0	1	0	1
		% within Race	0.0%	0.0%	14.3%	0.0%	4.8%
	Neutral	Count	0	0	0	1	1
		% within Race	0.0%	0.0%	0.0%	11.1%	4.8%
	Agree	Count	2	1	4	4	11
		% within Race	66.7%	50.0%	57.1%	44.4%	52.4%
	Strongly Agree	Count	1	1	2	4	8
		% within Race	33.3%	50.0%	28.6%	44.4%	38.1%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

8. Blockchain-based accounting will greatly reduce time and costs of performing auditing * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
8. Blockchain-based accounting will greatly reduce time and costs of performing auditing	Disagree	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Neutral	Count	0	0	0	1	1
		% within Certification	0.0%	0.0%	0.0%	50.0%	4.8%
	Agree	Count	4	1	5	1	11
		% within Certification	50.0%	100.0%	50.0%	50.0%	52.4%
	Strongly Agree	Count	3	0	5	0	8
		% within Certification	37.5%	0.0%	50.0%	0.0%	38.1%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

8. Blockchain-based accounting will greatly reduce time and costs of performing auditing * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
8. Blockchain-based accounting will greatly reduce time and costs of performing auditing	Disagree	Count	0	1	0	1
		% within Highest educational background	0.0%	11.1%	0.0%	4.8%
	Neutral	Count	1	0	0	1
		within Highest educational background	12.5%	0.0%	0.0%	4.8%
	Agree	Count	4	5	2	11
		% within Highest educational background	50.0%	55.6%	50.0%	52.4%
	Strongly Agree	Count	3	3	2	8
		% within Highest educational background	37.5%	33.3%	50.0%	38.1%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

8. Blockchain-based accounting will greatly reduce time and costs of performing auditing * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
8. Blockchain-based accounting will greatly reduce time and costs of performing auditing	Disagree	Count	0	1	0	0	1
		% within Area of specialisation	0.0%	12.5%	0.0%	0.0%	4.8%
	Neutral	Count	0	1	0	0	1
		% within Area of specialisation	0.0%	12.5%	0.0%	0.0%	4.8%
	Agree	Count	1	5	3	2	11
		% within Area of specialisation	50.0%	62.5%	42.9%	50.0%	52.4%
	Strongly Agree	Count	1	1	4	2	8
		% within Area of specialisation	50.0%	12.5%	57.1%	50.0%	38.1%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

9. Use of blockchain greatly simplifies integrity verification procedures * Gender Crosstabulation

			Gender		
			F	M	Total
9. Use of blockchain greatly simplifies integrity verification procedures	Neutral	Count	2	1	3
		% within Gender	14.3%	14.3%	14.3%
	Agree	Count	4	4	8
		% within Gender	28.6%	57.1%	38.1%
	Strongly Agree	Count	8	2	10
		% within Gender	57.1%	28.6%	47.6%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

9. Use of blockchain greatly simplifies integrity verification procedures * Race Crosstabulation

			Race				Total
			B	C	I	W	
9. Use of blockchain greatly simplifies integrity verification procedures	Neutral	Count	0	1	1	1	3
		% within Race	0.0%	50.0%	14.3%	11.1%	14.3%
	Agree	Count	1	0	3	4	8
		% within Race	33.3%	0.0%	42.9%	44.4%	38.1%
	Strongly Agree	Count	2	1	3	4	10
		% within Race	66.7%	50.0%	42.9%	44.4%	47.6%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

9. Use of blockchain greatly simplifies integrity verification procedures * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
9. Use of blockchain greatly simplifies integrity verification procedures	Neutral	Count	1	0	1	1	3
		% within Certification	12.5%	0.0%	10.0%	50.0%	14.3%
	Agree	Count	2	1	4	1	8
		% within Certification	25.0%	100.0%	40.0%	50.0%	38.1%
	Strongly Agree	Count	5	0	5	0	10
		% within Certification	62.5%	0.0%	50.0%	0.0%	47.6%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

9. Use of blockchain greatly simplifies integrity verification procedures * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
9. Use of blockchain greatly simplifies integrity verification procedures	Neutral	Count	1	1	1	3
		% within Highest educational background	12.5%	11.1%	25.0%	14.3%
	Agree	Count	4	3	1	8
		% within Highest educational background	50.0%	33.3%	25.0%	38.1%
	Strongly Agree	Count	3	5	2	10
		% within Highest educational background	37.5%	55.6%	50.0%	47.6%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

9. Use of blockchain greatly simplifies integrity verification procedures * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
9. Use of blockchain greatly simplifies integrity verification procedures	Neutral	Count	1	1	0	1	3
		% within Area of specialisation	50.0%	12.5%	0.0%	25.0%	14.3%
	Agree	Count	0	4	3	1	8
		% within Area of specialisation	0.0%	50.0%	42.9%	25.0%	38.1%
	Strongly Agree	Count	1	3	4	2	10
		% within Area of specialisation	50.0%	37.5%	57.1%	50.0%	47.6%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

10. Blockchain enables a real-time fraud detection scheme * Gender Crosstabulation

			Gender		
			F	M	Total
10. Blockchain enables a real-time fraud detection scheme	Disagree	Count	1	0	1
		% within Gender	7.1%	0.0%	4.8%
	Neutral	Count	2	2	4
		% within Gender	14.3%	28.6%	19.0%
	Agree	Count	7	4	11
		% within Gender	50.0%	57.1%	52.4%
	Strongly Agree	Count	4	1	5
		% within Gender	28.6%	14.3%	23.8%
Total		Count	14	7	21
		% within Gender	100.0%	100.0%	100.0%

10. Blockchain enables a real-time fraud detection scheme * Race Crosstabulation

			Race				Total
			B	C	I	W	
10. Blockchain enables a real-time fraud detection scheme	Disagree	Count	1	0	0	0	1
		% within Race	33.3%	0.0%	0.0%	0.0%	4.8%
	Neutral	Count	0	1	3	0	4
		% within Race	0.0%	50.0%	42.9%	0.0%	19.0%
	Agree	Count	1	1	3	6	11
		% within Race	33.3%	50.0%	42.9%	66.7%	52.4%
	Strongly Agree	Count	1	0	1	3	5
		% within Race	33.3%	0.0%	14.3%	33.3%	23.8%
Total		Count	3	2	7	9	21
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

10. Blockchain enables a real-time fraud detection scheme * Certification Crosstabulation

			Certification				Total
			CA(SA)	CA(SA) and CFA	Other	SAIPA	
10. Blockchain enables a real-time fraud detection scheme	Disagree	Count	1	0	0	0	1
		% within Certification	12.5%	0.0%	0.0%	0.0%	4.8%
	Neutral	Count	2	1	1	0	4
		% within Certification	25.0%	100.0%	10.0%	0.0%	19.0%
	Agree	Count	3	0	6	2	11
		% within Certification	37.5%	0.0%	60.0%	100.0%	52.4%
	Strongly Agree	Count	2	0	3	0	5
		% within Certification	25.0%	0.0%	30.0%	0.0%	23.8%
Total		Count	8	1	10	2	21
		% within Certification	100.0%	100.0%	100.0%	100.0%	100.0%

10. Blockchain enables a real-time fraud detection scheme * Highest educational background Crosstabulation

			Highest educational background			Total
			Bachelors	Honours	Masters	
10. Blockchain enables a real-time fraud detection scheme	Disagree	Count	0	1	0	1
		% within Highest educational background	0.0%	11.1%	0.0%	4.8%
	Neutral	Count	0	4	0	4
		% within Highest educational background	0.0%	44.4%	0.0%	19.0%
	Agree	Count	6	2	3	11
		% within Highest educational background	75.0%	22.2%	75.0%	52.4%
	Strongly Agree	Count	2	2	1	5
		% within Highest educational background	25.0%	22.2%	25.0%	23.8%
Total		Count	8	9	4	21
		% within Highest educational background	100.0%	100.0%	100.0%	100.0%

10. Blockchain enables a real-time fraud detection scheme * Area of specialisation Crosstabulation

			Area of specialisation				Total
			Audit and Assurance	Corporate reporting	Financial Management	Tax	
10. Blockchain enables a real-time fraud detection scheme	Disagree	Count	0	1	0	0	1
		% within Area of specialisation	0.0%	12.5%	0.0%	0.0%	4.8%
	Neutral	Count	1	3	0	0	4
		% within Area of specialisation	50.0%	37.5%	0.0%	0.0%	19.0%
	Agree	Count	1	3	3	4	11
		% within Area of specialisation	50.0%	37.5%	42.9%	100.0%	52.4%
	Strongly Agree	Count	0	1	4	0	5
		% within Area of specialisation	0.0%	12.5%	57.1%	0.0%	23.8%
Total		Count	2	8	7	4	21
		% within Area of specialisation	100.0%	100.0%	100.0%	100.0%	100.0%

APPENDIX F – Transcriptions

Transcription of Interviews – P001

for Sibusiso Malinga
January 2020

Sibusiso: This is an interview conducted on the 13th of December, 2019, by Sibusiso Malinga. So I'll start with interviewing the respondent.

Please can I have your name? This is optional, if you want, you cannot tell me your name, so it's up to you. It won't be disclosed, anyway, in the questionnaire, in the results. Do you want to just skip the name?

Interviewee: [].

Sibusiso: Ja, okay. Certification; are you CA(SA), CFA, ACCA?

Interviewee: CA(SA).

Sibusiso: CA(SA). Highest educational background? Bachelors Degree, Masters, Doctoral?

Interviewee: Postgraduate.

Sibusiso: Postgraduate. Your company name?

Interviewee: [].

Sibusiso: And your position?

Interviewee: Group Financial Manager.

Sibusiso: Okay. And then the next session, we're just checking your field of specialisation, we've got, audit and assurance, corporate reporting, financial management, tax, governance risk, and ethics.

Interviewee: I think, corporate reporting.

Sibusiso: Corporate reporting, okay. Thank you very much. And now we're going to part two of the questionnaire, where we're now discussing blockchain technology. So in terms of blockchain technology, there's five options, where the first one is, not at all aware; number two, slightly aware; number three, somewhat aware; number four, moderately aware; number five, strongly aware. So the question is, what is your understanding of blockchain technology?

Interviewee: Moderately aware.

Sibusiso: Moderately aware, okay. Okay, let's give you a brief definition of blockchain technology. It is a distributed ledger system, which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. So benefits are near real-time settlement, low costs, traceability, encryption, accuracy, it's a digital ledger, and reliability.

So everyone in the transaction can see what the other party is doing, so there's no fraud, or whatever. So if someone approves a transaction, all the parties involved, can see what's going on.

So the next session is now relating to your specific task that you do. So the first one is, which accounting tasks are manual?

Interviewee: Manual?

Sibusiso: Yes.

Interviewee: Hmm, just checking through trial balances.

Sibusiso: Okay. How long do these manual accounting tasks take? Maybe, hours a day, if you can estimate?

Interviewee: They take two to three hours a day.

Sibusiso: Okay. How frequent are these tasks done? Is it daily, weekly, monthly?

Interviewee: Monthly.

Sibusiso: Monthly. How will the automating of accounting tasks, impact your work schedule?

Interviewee: It's fairly automated, also, but sometimes you have to go through the agreements and things, so you can't skip that.

Sibusiso: Oh, okay. And then the last one is, which task can be automated with blockchain technology, if you have any idea? Like in your tasks that you do, what do you think can be automated by blockchain? Because another feature of blockchain, called smart contracts, so I'm not sure if that can also help with when you're looking at reviewing contracts, or..?

Interviewee: Ja. But it's PDF, and but…

Sibusiso: Oh yes, it's signed, yes.

Interviewee: And now let's just check, make a note, some queries on there. But ja, otherwise it's normally emailed to us, we don't do the drafting.

Sibusiso: the drafting, ja. So do you know which task then, can be automated?

Interviewee: Everything's already automated, but we need to…

Sibusiso: Ja, to verify.

Interviewee: ...to verify, check and…

Sibusiso: Ja, okay, thank you very much. Now we're moving to part three of the questionnaire. So here we just determine the level of likelihood that blockchain technology has the impact on the accounting profession. So this is on a Likert scale of one, up to five. So one is, extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So the first

question is, blockchain-based accounting would reduce the auditing costs and time. So you rate it from one up to five. So one is unlikely and five is.

Interviewee: Okay, probably, likely. Four to five.

Sibusiso: Four.

Interviewee: Ja.

Sibusiso: Okay. Number two, simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology. So would it be simplified by using blockchain.

Interviewee: ja. Also four.

Sibusiso: Also four. Number three, blockchain plays a pivotal role for the development to become the system of systems or journal of journals. That just means that it could be the best system to use, in terms of processing journals and so on.

Interviewee: Ja, I think so.

Sibusiso: So which one would you..?

Interviewee: Also four, I think.

Sibusiso: Also four. And then, the next one is number four. Blockchain will be programmed with unusual patterns, transactions can be checked immediately.

Interviewee: Ja, five.

Sibusiso: Five. Heading onto the next one, blockchain will be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Mm, ja. Four.

Sibusiso: Four.

Interviewee: Ja.

Sibusiso: Okay. The next one, blockchain can increase the operational efficiency of the business.

Interviewee: Ja, four.

Sibusiso: Four. Digital currency index will be the key to transparency, in crypto currency transactions.

Interviewee: Likely, four, ja.

Sibusiso: Four. The high level of trustworthiness of accounting information in the blockchain technology regime, will alter the role of accountants.

Interviewee: Probably, ja, five.

Sibusiso: Five. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Ja. I think that's a five.

Sibusiso: A five. Okay, then the last one is, technology disruption is evolving, due to employee and customer expectations, values and behaviour.

Interviewee: Four.

Sibusiso: Four, okay. Thank you very much. And now we're going to the last section. (interruption) Okay, so we're doing the last part now, which is behaviour intention. So here's also a Likert scale from one up to five. So one is, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; definitely would use. So the first one is.. so it's the behaviour intention, so my first question is, I intend to use blockchain technology in accounting, and / or other business processes. So from one up to five. So one is, wouldn't use; five is, definitely would use.

Interviewee: I think it's probably, would use it.

Sibusiso: So it's four?

Interviewee: Ja.

Sibusiso: Okay. I'm hoping to use blockchain technology in accounting, and / or other business processes.

Interviewee: Ja, four.

Sibusiso: Four?

Interviewee: Ja.

Sibusiso: Okay. I will continue to use blockchain technology in accounting, and / or other business processes.

Interviewee: Ja. Also three to four.

Sibusiso: Three, okay. Blockchain technology is the next-generation business process, improvement software.

Interviewee: Ja, four.

Sibusiso: Four. Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Ja, four.

Sibusiso: Four. Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Four, ja.

Sibusiso: Four. Transactions submitted in public ledger, do not need third party validations.

Interviewee: It's already validated as part of the process, so ja, it's a four.

Sibusiso: A four, okay. Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: Ja, four.

Sibusiso: Four. Use of blockchain, greatly simplifies integrity verification procedures.

Interviewee: Four, ja.

Sibusiso: Four. Blockchain enables a real-time for detection scheme.

Interviewee: Four.

Sibusiso: Four. Okay. Thank you very much for participating in this interview. So I think we are done.

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Transcription of Interviews – P002

for Sibusiso Malinga
January 2020

Sibusiso: Today is the 13th of December, 2019, and I'm conducting an interview on blockchain technology; my name is Sibusiso Malinga; so I'll be starting with the interview.

So I'm starting with a part one on demographic profile. Please can I have your name and surname; this is optional, so if you're not free, you can leave that one out.

Interviewee: [].

Sibusiso: Okay. Your certification, I've got CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: Okay, I would fall under, other.

Sibusiso: Okay. Please can you specify which one under other?

Interviewee: MBA graduate.

Sibusiso: Okay. Please can you provide your highest educational background? We've got options on a Bachelors Degree, Masters Degree, and a Doctoral programme.

Interviewee: A Masters Degree.

Sibusiso: Okay. Please can I have your position at your company?

Interviewee: I'm a bookkeeper.

Sibusiso: Okay, thanks. And then, please can you tell us your field of specialisation? So the options we have is, audit and assurance, financial management, strategic planning, and performance management, tax, corporate reporting, education, governance risk and ethics, and other.

Interviewee: I'd fall under financial management.

Sibusiso: Okay, thank you. So we now move to part two of the questionnaire, which entails the level of awareness of accountants on blockchain technology. Please specify your level of awareness from one up to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; five, strongly aware.

Interviewee: I'd fall under, four, moderately aware.

Sibusiso: Moderately aware?

Interviewee: Yes.

Sibusiso: Okay. I can just give you a brief definition of blockchain technology; it is a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. Benefits, especially in accounting, would be

the real-time settlement, low costs, traceability, accuracy, and reliability. And then we can now go onto the specific accounting tasks that are related to your profession. So the first one being, which accounting tasks are manual?

Interviewee: in my line of work, it would be more journals.

Sibusiso: Journals?

Interviewee: Yes.

Sibusiso: Thanks. So the next one is, how long do these manual accounting tasks take? So how many hours a day, for instance?

Interviewee: I would say, two hours, two, a minimum.

Sibusiso: Okay. The third one is, how frequent are these tasks done? Is it on a daily basis, weekly, or monthly?

Interviewee: The journals are done daily, but though there are those which are monthly.

Sibusiso: Okay, alright, thanks. The next one is, how will automating of accounting tasks impact your work schedule?

Interviewee: It will dramatically improve my accuracy and speed; so which means, I would take less hours doing my work.

Sibusiso: Okay. Which tasks can be automated with blockchain technology?

Interviewee: The processing of journals.

Sibusiso: Journals. Thank you very much. So now we move to part three of the questionnaire, which determines the level of likelihood that blockchain technology has an impact to the accounting profession. The items would be rated, using a five point Likert scale, ranging from one up to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; five, extremely likely. So the first one is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Extremely, which is a five.

Sibusiso: Extremely, it's a five. So the next one is simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: I'd say, four, likely.

Sibusiso: Okay. Three, blockchain plays a pivotal role for development to become the system of systems, or journal of journals; this meaning it will be the best system to use for the processing of journals. Everything will be transparent.

Interviewee: Okay. I'll still go for, likely.

Sibusiso: Four?

Interviewee: Yes.

Sibusiso: Okay. And the next one is, blockchain would be programmed that unusual patterns of transactions can be checked immediately.

Interviewee: Oh, extremely, that would be a five.

Sibusiso: Okay. Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: It's likely, I'll give it a four.

Sibusiso: Okay. Blockchain can increase the operational efficiency of the business.

Interviewee: Extremely, I'll give it a five.

Sibusiso: Digital currency index will be the key to transparency in cryptocurrency transactions.

Interviewee: I'm a bit sceptical, about cryptocurrency, so I'll still give it a three.

Sibusiso: A three, okay. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Slightly too, yes, I'll give it a four.

Sibusiso: Okay. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: I'll give it a five, extremely.

Sibusiso: Okay. And then the last one in this section is, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Extremely, I'll give it a five.

Sibusiso: Okay, thank you. So that was the last question in part three. So the last section in the questionnaire is part four, and this section examines the effects of the perceived usefulness, perceived to use end technology feed task to behaviour intention, to use blockchain technology. The items will be rated, using a five point Likert scale, ranging from one up to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; five, definitely would use.

Interviewee: Okay.

Sibusiso: So the first question under the behaviour intention is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: I probably would use it, four.

Sibusiso: Four. The next one is, I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Ah, definitely, it's a five.

Sibusiso: A five. Three, I will continue to use blockchain technology in accounting and other business processes.

Interviewee: Probably, four.

Sibusiso: Four, okay. So the next section is on the perceived usefulness. Blockchain technology is the next-generation business process improvement software.

Interviewee: Probably. That's a four.

Sibusiso: A four. Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Definitely, that's a five.

Sibusiso: And then the next one is on perceived user views. Blockchain is a special business processes, that makes work more efficiently and effectively.

Interviewee: Probably, that's a four.

Sibusiso: A four. Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Definitely, that's a five.

Sibusiso: And the technology task fit questions, blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: Definitely, that's a five.

Sibusiso: Five. User blockchain, greatly simplifies integrity, verification procedures.

Interviewee: Ja, that's a five, definitely.

Sibusiso: Okay. And the last one is, blockchain enables a real-time for detection scheme.

Interviewee: Definitely, that's a five.

Sibusiso: Okay, alright. Thank you very much for your time. We've come to the end of the interview.

Interviewee: Thank you.

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Transcription of Interviews – P003

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga conducting an interview on blockchain technology. The date is the 14th of January 2020, and the time is twenty-two minutes past two. So I'll start with part one of the questionnaire; part one is on the demographic profile. Please can you state your name? This is optional, we can skip it if you want.

Interviewee: [].

Sibusiso: Okay, thank you. And then the certifications, I've got options on CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: CA(SA).

Sibusiso: Okay. And then your highest educational background? I've got Bachelors, Masters, and Doctoral programme.

Interviewee: Honours.

Sibusiso: Unfortunately I don't have Honours. Yes. And the company name we'll skip, and then we'll move onto position that you hold in the company.

Interviewee: Financial Management.

Sibusiso: Okay. And then, on the area of specialisation, I've got audit and assurance, financial management, strategic planning, and performance management, tax, corporate reporting, governance risk and ethics, and other.

Interviewee: It's actually more financial management and corporate reporting.

Sibusiso: Okay, thanks. And then we move onto part two of the questionnaire, which is your awareness on blockchain. So we've got five options, one up to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please can you specify your level of awareness on blockchain technology?

Interviewee: I'd say it's level three.

Sibusiso: Three, okay, thanks. I'll just give a brief definition of blockchain; it is a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then I'll move onto the accounting tasks related to your field. The first question is, which accounting tasks are manual?

Interviewee: Manual reversal of journals.

Sibusiso: Okay thanks again. And the second question is, how long do these manual accounting tasks take? How many hours a day, for instance?

Interviewee: Maximum, one hour.

Sibusiso: One hour, okay. And then, how frequent are these tasks done? Is it on a daily basis, weekly, or monthly?

Interviewee: Monthly.

Sibusiso: Okay. And how will the automating of accounting tasks impact your work schedule?

Interviewee: I don't think there would be much of an impact.

Sibusiso: Ja, okay.

Interviewee: Unless the journals automated.

Sibusiso: Yes, okay. And then lastly, which tasks can be automated with blockchain technology? Are there any tasks that you can think of, that can be automated by blockchain?

Interviewee: None that I can think of.

Sibusiso: Okay. Now we move onto part three of the questionnaire, it's on a Likert scale, so from point one up to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; five, extremely likely. So I'll read out some statements, and then you rate them on the five point Likert scale. So the first statement is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Extremely likely, five.

Sibusiso: Five, okay. Simplification of the procedures on the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Also five.

Sibusiso: Okay. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: I'd say four.

Sibusiso: Okay. And then, blockchain will be programmed that unusual patterns of transactions can be checked immediately.

Interviewee: Five.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: A five.

Sibusiso: Blockchain can increase the operational efficiency of the business.

Interviewee: Definitely a five.

Sibusiso: Digital currency index will be the key to transparency in cryptocurrency transactions.

Interviewee: Five.

Sibusiso: Five, okay. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Five.

Sibusiso: Okay. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Two.

Sibusiso: And then, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Four.

Sibusiso: Okay, thank you. Now we move onto the last section of the questionnaire. It's also on a five point Likert scale, ranging from one to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; five, definitely would use. So on the behaviour and intention, the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I am hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Three.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Make that a four, as well.

Sibusiso: Okay. Then the rest of the questions is also on a five point Likert scale. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. Blockchain technology is the next-generation business processing improvement software.

Interviewee: Five.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Five.

Sibusiso: Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Five.

Sibusiso: Right. Transactions submitted to a public ledger, do not need third party validation.

Interviewee: One.

Sibusiso: Blockchain-based accounting will greatly reduce the time and cost of performing auditing.

Interviewee: Five.

Sibusiso: Use of blockchain, greatly simplifies the integrative verification procedures.

Interviewee: Five.

Sibusiso: Blockchain enables the real-time fraud detection scheme.

Interviewee: Five.

Sibusiso: Okay. Thank you very much. We've come to the last question of the interview.

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Transcription of Interviews – P004

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 15th of January, 2020, and the time is eighteen minutes past eight in the morning; I'll be starting with part A on the demographic profile. Please can you state your name; this is optional, we can skip it if you want.

Interviewee: [].

Sibusiso: Okay, thanks. Then we move onto certification, the options there are, CA(SA), CFA, ACCA, CIMA, CIA, and other. If it's other, then you can specify.

Interviewee: No, I don't know; so it's, other.

Sibusiso: Other, okay.

Interviewee: Sjoe! I can't remember now, the international certification for treasury management.

Sibusiso: Okay. And then, highest educational background? We've got Bachelors, Masters, and Doctoral programme.

Interviewee: Bachelors.

Sibusiso: Okay. And then company name we'll skip, and then the position that you hold in the company?

Interviewee: Financial Manager.

Sibusiso: Okay. And then, the next section is the area of specialisation. We've got the options that are there, audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, governance risks and ethics, and other.

Interviewee: Financial Management.

Sibusiso: Okay, thank you. Now we move onto part two of the questionnaire; it's on a Likert scale, one up to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please can you specify your level of awareness on blockchain technology?

Interviewee: One.

Sibusiso: One, okay, so that's a one. I'll just briefly give a definition of blockchain technology; it is a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then we move onto the accounting tasks in your field. So the first question under that section is, which accounting tasks are manual?

Interviewee: Sjoe! This is difficult, because there's always a certain.

Sibusiso: ..manuals, yes.

Interviewee: .. manual intervention, in all the work you do.

Sibusiso: Ja.

Interviewee: Each one has..

Sibusiso: Which one has the most? Is it journals, is it reconciliations, and treasury accounts?

Interviewee: Okay. Definitely journals, because we can actually get it from somewhere and actually import it, and we actually do it manually in the system.

Sibusiso: Oh okay.

Interviewee: And the recons as well, because you need some more descriptions of your recons and which you actually get from a GL.

Sibusiso: Okay, alright. Okay, thanks. And the next question is, how long do these manual accounting tasks take? So how many hours a day, for instance?

Interviewee: Sjoe! Agh, not even an hour.

Sibusiso: Okay. And then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: Monthly.

Sibusiso: Monthly, thank you. And then, how will automating of the accounting tasks impact your work schedule?

Interviewee: Well, if you look at journals, not much, because it doesn't take long.

Sibusiso: Yes, ja.

Interviewee: But we don't have the volumes here, that what we used to do, so it's like.

Sibusiso: Oh, ja. So it would be minimal, it won't be that much

Interviewee: Ja.

Sibusiso: Okay. And then lastly, which task can be automated with blockchain technology? But on this one, because you selected a one, above, we can skip, if you can't think of any.

Interviewee: Okay.

Sibusiso: Okay. So now we move onto part three of the questionnaire. It's on a Likert scale of one to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So I'll read out ten statements, which we'll then rate according to the Likert scale. So the first one is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Sibu, how would blockchain help us here?

Sibusiso: So this is just for the auditing costs. So if you have auditors coming to audit, and then everything is visible, so would it save time and..

Interviewee: Okay, yes, ja. Five. Then it's a five.

Sibusiso: A five, okay. Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: You know what's a problem if you simplify all your procedures?

Sibusiso: Yes.

Interviewee: You know and understand what's going on

Sibusiso: Yes.

Interviewee: So yes, if you've got volumes, absolutely. So it will help, but make it a three.

Sibusiso: A three, okay. And then, blockchain plays a pivotal role for the development to become the system of systems, or journal of journals; meaning to be *the* system to use for passing of journals, and. So I don't know how you'd rate that one.

Interviewee: It's difficult if you don't use it, and I haven't seen it, and I don't even know what it is.

Sibusiso: Ja. Okay, I think all of these, most of the people don't know, but it's just from the definition you've gone through, what you think it would be, the most appropriate scale.

Interviewee: Well, you know, always, I say, if you can automate, if you've got the volume of transactions, absolutely, you can automate them.

Sibusiso: Ja, so that's on three, so I'd give you the four.

Interviewee: Ja.

Sibusiso: Okay. Then the next one is, blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Okay, so it will be programmed?

Sibusiso: Yes.

Interviewee: Blockchain will be programmed, that unusual patterns can be checked immediately.

Sibusiso: Yes.

Interviewee: Okay, then it's a five. But it's extremely likely. Will it add value?

Sibusiso: A five, yes. So basically I'm reading the statements, and then you're giving it a rating of one to five. So if.. it will do what the statement is saying, or it will not.

Interviewee: Blockchain will be programmed.

Sibusiso: Yes, that unusual pattern of transactions can be checked immediately. Where something is wrong in the transactions and then it would be immediately checked.

Interviewee: Like exception report or something?

Sibusiso: Yes.

Interviewee: Or will the system check it?

Sibusiso: So like if something is wrong in the transactions, immediately, you will pick it up.

Interviewee: Ja, okay.

Sibusiso: There's something wrong, that transaction hasn't been approved, or the amount isn't correct, it's not the amount we know, ja.

Interviewee: So it will be programmed?

Sibusiso: Yes.

Interviewee: So

Sibusiso: Well, this is a statement that it will be programmed, so you are rating it whether it would be extremely unlikely..

Interviewee: Extremely likely that it will be programmed or not?

Sibusiso: Yes. So I'm reading the statement and then you are giving me the answer, based on that statement. Do you think it will be programmed that unusual patterns of transactions can be checked immediately.

Interviewee: Four.

Sibusiso: Four, okay. So all of the statements are the same, so I'm giving a statement and then you rate it from one up to five. So the next one is, blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Likely.

Sibusiso: Okay, four. Blockchain can increase the operational efficiency of the business.

Interviewee: Five.

Sibusiso: And then, digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Digital currency index, would be the key to transparency, cryptocurrency transactions. Ja, four.

Sibusiso: Okay. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: The high level of trustworthiness. I hope so. So, likely.

Sibusiso: Okay, so it's a four. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Five, I hope so.

Sibusiso: Okay. And then lastly, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Four.

Sibusiso: Four, okay. Then we move onto the last section of the questionnaire. It's also on a Likert scale, one up to five. On behaviour intention. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; five, definitely would use. So the first statement there is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Three.

Sibusiso: Okay, and then, I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: Okay. Then we move onto perceived usefulness. It's also in a Likert scale, one up to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. So the next statement is, blockchain technology is the next-generation business process improvement software.

Interviewee: Must I base it on this study here then? The new one?

Sibusiso: Yes, one to five, yes, the new one.

Interviewee: Four.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Four.

Sibusiso: Okay. Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Five.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Sjoe! To the public ledger?

Sibusiso: Yes.

Interviewee: One.

Sibusiso: Okay. Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: Five.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Five.

Sibusiso: And then lastly, blockchain enables a real-time fraud detecting scheme.

Interviewee: Five.

Sibusiso: Okay, thank you very much for the interview. We've come to the end.

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Transcription of Interviews – P005

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 15th of January, 2020, and the time is twenty-five minutes to nine in the morning; so I'll start with the questionnaire on part 1, demographic profile. Please can you state your name; this is optional, so you can skip it if you don't want to mention it.

Interviewee: [].

Sibusiso: Okay, thank you. And then we move onto certification, the options available are, CA(SA), CFA, ACCA, CIMA, CIA, and other. If it's other, you can specify.

Interviewee: Okay, other, I'm a CIS.

Sibusiso: Okay. Then, highest educational background? We've got Bachelors, Masters Degree, Doctoral programme.

Interviewee: So, Bachelor.

Sibusiso: Okay. And then company name we'll skip, and then move onto the position.

Interviewee: It's Finance Manager.

Sibusiso: Okay. And then, we move onto the field of specialisation. The options available are, audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, governance risks and ethics, and other.

Interviewee: Financial Management.

Sibusiso: Okay, thank you. So now we move onto part two of the questionnaire; it's on a Likert scale of one to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please can you specify your level of awareness on blockchain technology?

Interviewee: Slightly aware, two.

Sibusiso: A two, okay. I'll briefly give a definition of blockchain technology; it is a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then we move onto the accounting tasks, so in your line of work, there's five questions, so the first one being, which accounting tasks are manual? Which accounting tasks do you find manually, on your day-to-day..

Interviewee: Okay, so I extract bank statements from the bank, and then manually, I capture that information into an excel spreadsheet, and then manually, I capture that onto Pastel.

Sibusiso: Okay. And then, how long do these manual accounting tasks take? How many hours a day, for instance?

Interviewee: Probably, on average three hours a day.

Sibusiso: Okay. Then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: Daily.

Sibusiso: Okay. Then, how would the automating of these account tasks impact your work schedule?

Interviewee: It would be much quicker, and it should reduce the time I need to spend, then, on that manual task.

Sibusiso: Okay yes. And then, which task can be automated with blockchain technology? Is there any task that you can think of that would.. if there's none that..

Interviewee: Ja, we are looking at downloading directly from the bank.. from the bank statement, which will then pull through directly into Pastel, but the problem, is that there is no repetitive transactions. It's not processing of..

Sibusiso: Okay. Something I think they [..], yes.

Interviewee: Yes, of the same thing every month, apart from bank charges and maybe interest, all the other transactions are investments and acquisitions, receipt of dividends, they don't happen the same every month.

Sibusiso: Oh, okay. Okay, thank you. Now we move onto part three of the interview; it's on a five point Likert scale. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; five, extremely likely. So I'll read out ten statements, and then we'll rate them according to the five point Likert scale. So the first one being, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Okay, so I would say, likely, four.

Sibusiso: Okay, four. And then simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Also likely, four.

Sibusiso: Four, okay. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: Also four, likely.

Sibusiso: Okay. Blockchain would be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Yes, five, extremely likely.

Sibusiso: Okay. Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: That's extremely likely.

Sibusiso: Okay, so five. Blockchain can increase the operational efficiency of the business.

Interviewee: Four, likely.

Sibusiso: Okay. Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: I'm not sure that I understand that one.

Sibusiso: So the digital currency index will be key to transparency.. so it's saying that it will be key for cryptocurrency transactions; so like.. be your Bitcoins, that it will be.. it will enable it to be more efficient, the way that Bitcoin operates currently.

Interviewee: Okay.

Sibusiso: Bitcoin and other, because it's lots of other cryptocurrency systems that are available.

Interviewee: Okay, so it's four, likely.

Sibusiso: Okay. The high level of trustworthiness of account information in blockchain technology regime, will alter the role of accountants.

Interviewee: Ja, extremely likely.

Sibusiso: Okay, five. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Yes, I would say, likely, I'm not well-informed on that, but I would think it's likely.

Sibusiso: Okay, so it's a four. And then lastly, technology disruption is evolving due to employee and customer expectations, values and behaviours.

Interviewee: Yes, extremely likely.

Sibusiso: Okay, so it's a five. Then we come to the last section of the interview. It's also on a five point Likert scale. The behaviour intention on the five point Likert scale; one, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: I probably would use.

Sibusiso: Okay, four. I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Yes, four.

Sibusiso: Four. I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Well, once it's in place, yes, five, definitely.

Sibusiso: Okay. And then we move onto perceived usefulness. It's also on a five point Likert scale. One being, strongly disagree; two, disagree; three, neutral; four, agree; five, strongly agree. So, blockchain technology is the next-generation business process improvement software.

Interviewee: I'd say, four, probably.

Sibusiso: Four, agree, okay. Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: I agree, four.

Sibusiso: Okay. Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Strongly agree, five.

Sibusiso: Five, okay. Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Four, agree.

Sibusiso: Blockchain-based accounting will greatly reduce the time and cost of performing auditing.

Interviewee: Five, strongly agree.

Sibusiso: Okay. Use of blockchain, greatly simplifies integrity verification procedures.

Interviewee: Five.

Sibusiso: Okay. And then lastly, blockchain enables a real-time fraud detecting scheme.

Interviewee: Yes, five.

Sibusiso: Five, okay, thank you. We've come to the end of the interview. Thank you very much for your time.

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Transcription of Interviews – P006

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 15th of January, 2020, and the time is twelve minutes before nine in the morning; so I'll start with the first part of the questionnaire, part one, on the demographic profile. Please can you state your name; this is optional, you can skip it if you want.

Interviewee: [..].

Sibusiso: Okay. The next section is on certification, so we've got the options of, CA(SA), CFA, ACCA, CIMA, CIA, and other. If it's other, then you can specify.

Interviewee: CA(SA).

Sibusiso: Okay. And then, highest educational background? We've got Bachelors, Masters, and Doctoral. So we don't have an Honours option

Interviewee: Masters.

Sibusiso: Okay, Masters, okay. Please check your field of specialisation. I've got options of audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, governance risks and ethics.

Interviewee: Tax.

Sibusiso: So it's tax, okay. Then part two, it's your awareness of blockchain. You've got a Likert scale, one up to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please can you specify your level of awareness on blockchain technology?

Interviewee: Four.

Sibusiso: Four, okay. And then I'll just briefly mention a definition of blockchain; it is a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. So we move onto the accounting tasks. So in your line of work, which accounting tasks are manual?

Interviewee: Most of it is automated nowadays. Most of it is automated.

Sibusiso: Okay, so you don't have any. nothing that you can think of?

Interviewee: I can't think of it offhand, but there is quite a bit.

Sibusiso: Okay. And how long do these manual accounting tasks take, hours a day? So how many minutes, or hours.

Interviewee: It's maybe an hour and a half.

Sibusiso: An hour and a half, okay. How frequent are these tasks done? Is it daily, weekly, or monthly?

Interviewee: Daily.

Sibusiso: Okay. How will automating of the accounting tasks impact your work schedule?

Interviewee: Make it a bit easier.

Sibusiso: Okay. Which tasks can be automated with blockchain technology? Is there any that you can think of?

Interviewee: I don't know any, at the moment, ja.

Sibusiso: Okay. Part three; it's on a five point Likert scale, one up to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So I'll read out ten statements on blockchain technology, and then we'll rate them. So the first one is, blockchain-based accounting would reduce the auditing cost and time.

Interviewee: Four.

Sibusiso: Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Three.

Sibusiso: Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: Four.

Sibusiso: Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Four.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Four.

Sibusiso: Blockchain can increase the operational efficiency of the business.

Interviewee: Three.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Three.

Sibusiso: The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Three.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Four.

Sibusiso: Technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Four.

Sibusiso: And the last section of the questionnaire. It's also on a five point Likert scale. The behaviour intention is on a five point Likert scale. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: And then on perceived usefulness. It's also a five point Likert scale. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. Blockchain technology is the next-generation business process improvement software.

Interviewee: Four.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Four.

Sibusiso: Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Four.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Two.

Sibusiso: Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: Four.

Sibusiso: Use of blockchain, greatly simplifies integrity verification procedures.

Interviewee: Three.

Sibusiso: And lastly, blockchain enables a real-time fraud detecting scheme.

Interviewee: Four.

Sibusiso: Thank you very much. We've come to the end of the interview.

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Transcription of Interviews – P007

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 16th of January, 2020, and the time is two minutes before nine in the morning; so I'll start with the questionnaire on part 1, demographic profile. Please can you state your name; this is optional, you can skip it if you wish.

Interviewee: [].

Sibusiso: Okay, thank you. And then your certifications, we've got options of, CA(SA), CFA, ACCA, CIMA, CIA, and other. If it's other, then you can specify.

Interviewee: CA(CA).

Sibusiso: And then, the highest educational background? We've got Bachelors, Masters Degree, Doctoral programme.

Interviewee: Masters Degree.

Sibusiso: And then company name we'll skip, and then move onto the position.

Interviewee: SA Tax Manager.

Sibusiso: Okay. And then we move onto the area of specialisation. And then we've got different options, one being audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, governance risks and ethics, and other.

Interviewee: I'm in tax.

Sibusiso: Okay, thank you. Then part two of the questionnaire is on your awareness on blockchain; it would be rated from one to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please can you specify your level of awareness on blockchain technology?

Interviewee: Moderately aware.

Sibusiso: Moderately, okay, so that's a four. I'll just briefly mention the description of blockchain; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then on your accounting tasks. So the first question would be, which accounting tasks are manual? So on your day-to-day jobs, is there anything that you can think of that involves a lot of manual work?

Interviewee: So with our compliance work, there is a portion that you can't automate. It might be a bit of research and some of the admin stuff is, just due to the nature of what we do, is manual. But as you know, our tax, [..] example [..]. Also just because of having issues going from the automatic tax-back, we can't automate our tax return. So that's also still manual.

Sibusiso: Okay. And the next question is, how long do these manual accounting tasks take? How many hours a day, or is it a few minutes, or..?

Interviewee: So let's focus on compliance work, it would probably be like 20% of a return, yes.

Sibusiso: Okay. And then, how frequent are these tasks done? Is it daily, weekly, or monthly?

Interviewee: So we have our quiet periods, and then we have our busy periods. So let's call it busy lasts eight months of the year, every day.

Sibusiso: Every day, okay. And then, how will the automating of the accounting tasks impact your work schedule, if some of these would be automated?

Interviewee: It would definitely make it would be more efficient, if we can, ja, automate. Let's focus then automating from the tax-back to the tax return.

Sibusiso: Yes, that can save a lot of time. And then, which tasks can be automated with blockchain technology? Is there something you can think of, in your area? If there's nothing then just skip that one.

Interviewee: No.

Sibusiso: Okay. Thank you. Then we move onto part three of the questionnaire. It's on a five point Likert scale. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. I'll read out ten statements, and then we'll rate them one up to five. So the first one is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Give it a one.

Sibusiso: A one, okay. Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Four.

Sibusiso: And then, blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: Four.

Sibusiso: Blockchain would be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Four.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Four.

Sibusiso: Blockchain can increase the operational efficiency of the business.

Interviewee: Four.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Four.

Sibusiso: The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Four.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Four.

Sibusiso: And then, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Four.

Sibusiso: Four, okay. Then we move onto the last section of the interview. It's also on a five point Likert scale. The behaviour intention section is using one up to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Five.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Five.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Five.

Sibusiso: Okay. The rest of the statements are also on a five point Likert scale. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. Blockchain technology is the next-generation business process improvement software.

Interviewee: Four.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Four.

Sibusiso: Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Four.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: I want to go, three.

Sibusiso: Okay. Blockchain-based accounting will greatly reduce the time and cost of performing auditing.

Interviewee: Five.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Five.

Sibusiso: Okay, and lastly, blockchain enables a real-time fraud detecting scheme.

Interviewee: Four.

Sibusiso: Okay, thank you very much, we've come to the end of the interview.

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Transcription of Interviews – P008

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 16th of January, 2020, and the time is eleven minutes past nine in the morning; so I'll start with the questionnaire; part 1 is on the demographic profile. Please can you state your name; this is optional, you can skip it if you want.

Interviewee: [].

Sibusiso: Thank you. And then certification, we've got, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: I will be under Bachelor.

Sibusiso: Okay, and then, highest educational background? Bachelors, Masters Degree, Doctoral programme.

Interviewee: Bachelor.

Sibusiso: Okay. And then company name we'll skip, and then the position that you hold?

Interviewee: Tax Manager.

Sibusiso: Okay. And then we move onto the area of specialisation. We've got, audit and assurance, financial management, corporate reporting, strategic planning and performance management, tax, governance risks and ethics, and other.

Interviewee: I will follow tax.

Sibusiso: Okay, thank you. Now we move onto part two of the questionnaire which is looking into your awareness on blockchain; it's going to be rated on one to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please can you specify your level of awareness on blockchain technology?

Interviewee: Somewhat aware.

Sibusiso: Okay, so it's a three. So, briefly, I'll just mention the definition of blockchain; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. So then we move onto the accounting tasks. So the first question is, which accounting tasks are manual? So in your normal day-to-day, is there anything that you can think of that involves a lot of manual work?

Interviewee: I'm dealing with tax, so the accounting that is manual, is basically.. I'm just thinking now, being on a head office level, I personally don't deal with a lot of accounting entries. I just deal with information that I receive from the accountants. So the only thing that I will do manually, is basically, it's going to be uploading information into Hyperion. And that's the only manual thing that I will do on my side. So I get a lot of information from the companies

and divisions, and then I will then manually upload it onto the system. Because I am on a head office level. I don't physically do accounting entries.

Sibusiso: Okay. And then question two, how long do those manual accounting tasks take? But since you say there's not a lot of manual, so there's not a lot of time..?

Interviewee: Yes.

Sibusiso: Ja, okay. And then the other question is, how frequent are these tasks done?

Interviewee: It's done daily, and weekly as well, but it doesn't, at the moment, it takes a lot of time to do it, ja.

Sibusiso: Okay. And then, how will automating of the accounting tasks impact your work schedule?

Interviewee: It will help me when it comes to reconciliation process. It will definitely have a big impact in my life.

Sibusiso: Okay. And then lastly, which tasks can be automated with blockchain technology? Is there anything you can think of? If there's nothing we can move on.

Interviewee: Nothing, ja.

Sibusiso: There's nothing, okay. We move onto part three of the questionnaire; it's on a five point Likert scale. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So I'll read out ten statements, and then we'll rate from one up to five. So the first statement is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: I will say, five, ja.

Sibusiso: Okay. Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: I'm going to use this, based on when I look at auditing clerks, because in my environment, it's doesn't have a lot of effect, and when I look at the auditing clerks, it will definitely be a number four.

Sibusiso: A number four, okay. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: Four.

Sibusiso: Okay. Blockchain would be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Five.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Five.

Sibusiso: Blockchain can increase the operational efficiency of the business.

Interviewee: Four.

Sibusiso: Digital currency index will be key to transparency in the cryptocurrency transactions.

Interviewee: Four.

Sibusiso: Okay. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Four.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Four.

Sibusiso: And lastly, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Five.

Sibusiso: Okay. Then we move onto the last section, part four of the questionnaire. It's also on a five point Likert scale. The behaviour intention section is one up to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: Okay. I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: Okay. And then the rest of the statements is also on a five point Likert scale. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. Blockchain technology is the next-generation business process improvement software.

Interviewee: Five.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Four.

Sibusiso: Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Four.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Four.

Sibusiso: Blockchain-based accounting greatly reduces the time and cost of performing auditing.

Interviewee: Five.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Five.

Sibusiso: Then lastly, blockchain enables a real-time fraud detecting scheme.

Interviewee: Four.

Sibusiso: Okay, thank you very much. We've come to the end of the interview.

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Transcription of Interviews – P009

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 16th of January, 2020, and the time is twenty-one minutes past nine in the morning; so I'll start with part A on the demographic profile. Please can you state your name; this is optional, you can skip it if you want.

Interviewee: [].

Sibusiso: Okay, thank you. And then the next section is on certification, the options there are, CA(SA), CFA, ACCA, CIMA, CIA, and other. If it's other, then you can specify.

Interviewee: Because I'm a member of SAD South African Institute of Tax Practitioners.

Sibusiso: Okay, thanks. The highest educational background? We've got Bachelors, Masters, and Doctoral programme.

Interviewee: What do you do after your Degree, you do your.

Sibusiso: Ja, Honours. I don't have as an option

Interviewee: Honours.

Sibusiso: Ja, okay, that's fine, ja. Company name we'll skip, and then we'll move onto position.

Interviewee: I'm Tax Manager for Africa.

Sibusiso: Okay, thanks. And then on the area of specialisation, we've got audit and assurance, financial management, strategic planning and performance management, corporate reporting, governance risks and ethics, tax, and other.

Interviewee: So that'll be tax.

Sibusiso: Tax, okay, thank you. And then part two of the questionnaire is on the awareness on blockchain technology; it's on a scale of one up to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please can you state your level of awareness on blockchain technology?

Interviewee: Let's say somewhat aware, I know there's technology, but I don't know the term, blockchain.

Sibusiso: Oh, okay, so that's a three. So I'll just give a briefly definition of what blockchain is; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then we move onto the accounting tasks. So I'll just ask five questions related to what you do, and what can be automated. So the first question is, which accounting tasks are manual? So in your day-to-day job, is there anything that is manual and takes up some time?

Interviewee: The only thing that is manual is the review of the tax-backs.

Sibusiso: Oh okay.

Interviewee: I mean, we'd only do accounting.

Sibusiso: Because it's done in that divisions..?

Interviewee: Ja.

Sibusiso: Okay. So the other question is, how long do these manual accounting tasks..? So how many hours a day, for instance, the review of the tax-backs and..?

Interviewee: Well it depends on the time of the year. So like now, I have to submit the end of the month, so it's going to vary. But if I have to do, even in out over a annual basis, then you can say one hour, or maybe just.

Sibusiso: Okay. And then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: It's more annually.

Sibusiso: Okay. And then, how will automating of the accounting tasks impact your work schedule?

Interviewee: I think it's already with your HFM pack, it's already, from a hour's perspective, so I don't think you can do it further. ja.

Sibusiso: Okay. And then the last question is, which task can be automated with blockchain technology? We can skip this one if there's nothing you can think of.

Interviewee: Ja, not that I can think of. Sorry man.

Sibusiso: Okay, no problem. So we move onto part three of the questionnaire. It's on a five point Likert scale. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So the first statement is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Well as I understand it, it would be extremely likely.

Sibusiso: Okay, so that's a five. Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: I think also a five.

Sibusiso: A five, okay. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: Let's give it a four.

Sibusiso: Okay. Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: I think that's five.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Let's say, four.

Sibusiso: Okay. Blockchain can increase the operational efficiency of the business.

Interviewee: Five.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: I don't know, let's say, neutral.

Sibusiso: Ja, okay. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Let's say a four.

Sibusiso: Okay. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Five.

Sibusiso: And then, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Five.

Sibusiso: Okay, thanks. We move onto the last section of the questionnaire, it's also on a five point likert scale, the behaviour intention is, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Let's say a four.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Hoping. oh the one is intent, the other one is hoping.

Sibusiso: Yes.

Interviewee: So let's give it a four.

Sibusiso: Okay. I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: Okay. And then the rest of the statement is also on a five point Likert scale. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. Blockchain technology is the next-generation business process improvement software.

Interviewee: Agree, a four.

Sibusiso: A four. Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Improve the business processes, that occurs between..

Sibusiso: ..companies, radically lowering the cost of trust.

Interviewee: What is the cost of trust?

Sibusiso: The trust between different companies. So if you've got a transaction with another company, and then, ja, so..

Interviewee: Now you're using blockchain and they're using blockchain.

Sibusiso: Yes, ja.

Interviewee: So I'll give it a four.

Sibusiso: A four. Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Five.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Neutral, three.

Sibusiso: Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: Give it a four.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Four.

Sibusiso: And then lastly, blockchain enables a real-time fraud detecting scheme.

Interviewee: Four.

Sibusiso: Okay, thank you very much. We've come to the end of the interview.

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Transcription of Interview – P010

for Sibusiso Malinga
January 2020

Sibusiso: This is an interview conducted by Sibusiso Malinga, on blockchain technology; the date is the 10th of January, 2020, and the time is twenty minutes to four; so I'll start with the first part, part 1, on the demographic profile. The first section is on the name, please can we have your name; this is optional, so if you want to, then skip that.

Interviewee: Okay, we can skip it.

Sibusiso: We can skip it, okay. The next question is certification, we've got options on, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: So CA and CFA.

Sibusiso: Okay. And then, highest educational background? We've got Bachelors, Masters, and Doctoral programme.

Interviewee: Bachelor.

Sibusiso: Okay. And then company name we'll skip, and then the next section is the position that you hold.

Interviewee: Corporate reporting.

Sibusiso: Okay. And then on the specialisation, there are different areas, first being audit and assurance, financial management, corporate reporting, education, strategic planning and performance management, tax, governance risks and ethics, and other.

Interviewee: Must be financial admin... audit... isn't it corporate reporting.

Sibusiso: Corporate reporting, okay. And then we move onto part two, this is where you'll be rating from one up to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please specify your level of awareness on blockchain technology, from one up to five?

Interviewee: Slightly aware.

Sibusiso: Slightly aware, so a two, okay. So I'll just give you a brief definition of blockchain technology; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then on the accounting tasks, I've got five questions there, the first one being, which accounting tasks are manual? So in your normal day-to-day jobs, which tasks would you find manual?

Interviewee: So I can say….so the …journals, journals are manual. And share-based equity, is fairly manual. Checking the variances is also manual. Doing the equity recon is manual.

Sibusiso: Okay. And then, how long do these manual accounting tasks take? How many hours a day, for instance?

Interviewee: Say, three hours.

Sibusiso: Three hours, okay. How frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: It's monthly.

Sibusiso: Okay. And then, how will automating of the accounting tasks impact your work schedule?

Interviewee: It will make my work a lot easier, you can say. Ja, decrease the work load.

Sibusiso: Ja. And free up time for other things, yes. Okay, and then the last question is, which task can be automated with blockchain technology? From the manual tasks that you've identified, which one do you think can be automated?

Interviewee: I think the equity recon could be automated.

Sibusiso: Yes, and maybe the journals, ja. Okay. And then part three of the questionnaire will be rated using a five point Likert scale ranging from one to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So I'll read out some statements, and then we'll just rate from one up to five. So the first one is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: I think, four.

Sibusiso: Four, okay. Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: I think, four, as well.

Sibusiso: Okay. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: Four, again.

Sibusiso: Okay. Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Ja, I think, four, as well.

Sibusiso: Okay. Blockchain will be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Four, as well.

Sibusiso: Okay. Blockchain can increase the operational efficiency of the business.

Interviewee: Ja, five.

Sibusiso: And, digital currency index will be the key to transparency in cryptocurrency transactions.

Interviewee: I'll say, three.

Sibusiso: Okay. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Four.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Five.

Sibusiso: Technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Five.

Sibusiso: Now we move onto the last section of the questionnaire, on the behaviour intention, we're using a Likert scale, ranging from one to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Ja, so three.

Sibusiso: Okay. Then we move onto the perceived usefulness, but the rest of the questions are also in the Likert scale, one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; five, strongly agree. So the first one under that section is, blockchain technology is the next-generation business process improvement software.

Interviewee: Five.

Sibusiso: Okay. Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Four.

Sibusiso: Okay. Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Four.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Two, I would say, ja.

Sibusiso: Okay. Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: I think, four.

Sibusiso: Use of blockchain, greatly simplifies integrity verification procedures.

Interviewee: Four.

Sibusiso: Okay, and lastly, blockchain enables a real-time fraud detection scheme.

Interviewee: I think, three.

Sibusiso: Okay, thank you very much for the interview.

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Transcription of Interview – P011

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview, it's at offices for a logistics company, the date is the 10th of January, 2020, and the time is ten past eight in the morning; so I'll start the first section of the interview. Part 1 is on the demographic profile, so I'll ask for the name, but that's optional, do you want to skip the name?

Interviewee: ..

Sibusiso: Okay, so the second section is on the certification, so there's CA(SA), CFA, ACCA, CIMA, CIA, please can you specify which one.

Interviewee: It's the first one, CA(SA).

Sibusiso: Okay, and then, the highest educational background? We've got Bachelors, Masters, and Doctoral programme.

Interviewee: It would be Bachelor.

Sibusiso: Okay. Company name we'll skip, and then position?

Interviewee: I'm the GM of Finance.

Sibusiso: Okay. Please select your field of specialisation. The choices here are, audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, education, governance risks and ethics, and other.

Interviewee: Ja, I think it's more the corporate reporting side.

Sibusiso: Okay. Now we move to part two of the questionnaire, which examines the level of awareness of the accountant on blockchain technology. Please specify your level of awareness on blockchain technology, ranging from one to five; one, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware.

Interviewee: I think it would be, two.

Sibusiso: Two, slightly aware. I'll just give a brief definition of what blockchain is; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. Then we move to the accounting tasks relating to the job that you do. Which accounting tasks are manual?

Interviewee: Quite a bit of it. All of our schedules are done manually; our disclosures are done manually. We use certain info, directly from systems, but again, those are prepared manually and retrieved manually. So a lot of manual work is done.

Sibusiso: Okay, thanks. The second question is, how long do these manual accounting tasks take? How many hours a day, for instance?

Interviewee: Yeah, well half the day, I think I'd say, ja.

Sibusiso: Okay. And then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: Daily.

Sibusiso: Okay. And then, how will automating of the accounting tasks impact your work schedule?

Interviewee: Hugely, it will be a great benefit, if we can automate it fully.

Sibusiso: Okay. And then the last one on this section is, which task can be automated with blockchain technology?

Interviewee: That, I wouldn't be sure of.

Sibusiso: Okay. And now we move to part three of the questionnaire, which determines the level of likelihood that blockchain technology has the impact it has to the accounting profession. The items would be ranked using a five point Likert scale, ranging from one to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; five, extremely likely. So the first one is, blockchain-based accounting would reduce the auditing cost and time.

Interviewee: I think it will be number five.

Sibusiso: Okay. Number two is, simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Ja, maybe likely, extremely likely, let's go with number four.

Sibusiso: Number four. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals; basically meaning that it will be the best system to use for journals, though.

Interviewee: Ja, I think, neutral, there.

Sibusiso: Okay, so a three. Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Ja, I think number four there.

Sibusiso: Number four. Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: I think number three there.

Sibusiso: Number three. Blockchain can increase the operational efficiency of the business.

Interviewee: I think, five or four.

Sibusiso: Okay, four. Digital currency index will be the key to transparency in cryptocurrency transactions.

Interviewee: Four.

Sibusiso: The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Three.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goal.

Interviewee: Five.

Sibusiso: Technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Five.

Sibusiso: Okay, thanks. And now we move to the last section of the questionnaire. This questionnaire examines the effect of the perceived usefulness, perceived to use and technology fit, tasks to behaviour intention to use blockchain technology. The items would be rated, using a five point Likert scale ranging from one to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So the first one, is on the behaviour intention. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Number four.

Sibusiso: The second question is, I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: Okay. And then we move to the perceived usefulness. This section will be ranked from one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. So the first one there is, blockchain technology is the next-generation business process improvement software.

Interviewee: Number three.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Number four.

Sibusiso: Blockchain is a special business process that will work more efficiently and effectively.

Interviewee: Number four.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Number three.

Sibusiso: Blockchain-based accounting would greatly reduce time and cost of performing auditing.

Interviewee: Number four.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: I think five.

Sibusiso: And then lastly, blockchain enables a real-time fraud detection scheme.

Interviewee: Three.

Sibusiso: Okay, thank you very much. We've come to the end of our interview.

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Transcription of Interview – P012

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on the 10th of January 2020, the time is eighteen minutes to nine, in the morning. So I'll start with the interview now. Part 1 is on demographic profile, so the first section is on the name, this is optional, you can skip it if you want.

Interviewee: Anonymous.

Sibusiso: Anonymous, okay. The next section is certification, the options there are, CA(SA), CFA, ACCA, CIMA, CIA, and the other one is, other.

Interviewee: CA(SA).

Sibusiso: Okay. Highest educational background is, Bachelor, Masters Degree, Doctoral programme.

Interviewee: Bachelor.

Sibusiso: We'll skip the company name, and then move onto the position.

Interviewee: Project Accountant.

Sibusiso: Okay. And then the next section is your area of specialisation. The options here are audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, education, governance risks and ethics, and other.

Interviewee: Financial Management.

Sibusiso: Okay. And then we move onto part two of the questionnaire, it's on the level of awareness on blockchain; so this would be rated from one up to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; five, strongly aware. So please specify your level of awareness on blockchain technology? From one up to five.

Interviewee: One.

Sibusiso: One, not at all aware. Okay, I'll just give you a brief definition of blockchain; blockchain technology is a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. Benefits are in real-time settlement, which saves time, low cost traceability, accuracy, distributed ledger, reliability. So those are some of the benefits of blockchain technology. So now we move onto the accounting tasks in your area of specialisation. The first question one is, which accounting tasks are manual?

Interviewee: Preparation of our journals.

Sibusiso: Okay. The next question is, how long do these manual accounting tasks take? How many hours a day?

Interviewee: I'll say it takes about an hour.

Sibusiso: An hour a day, okay. The next question is, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: Weekly.

Sibusiso: Weekly, okay. How will the automating of the accounting tasks impact your work schedule?

Interviewee: There will be less errors, less human intervention, and also it will save time.

Sibusiso: Okay. Then lastly, which task can be automated with blockchain technology?

Interviewee: Sjoe! I don't know.

Sibusiso: Okay, it's fine, you can skip that, because we did mention the manual tasks, so mainly it's journals that can be automated by blockchain technology. So now we move to part three of the questionnaire. And this section determines the level of likelihood that blockchain technology's impact the accounting profession. The items would be rated using a five point Likert scale ranging from one to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So the first statement is, blockchain-based accounting would reduce the auditing cost and time.

Interviewee: Two.

Sibusiso: The simplification of procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Four.

Sibusiso: Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals; meaning to be the best technology to use, for posting journals.

Interviewee: Four.

Sibusiso: Blockchain would be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Five.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Three.

Sibusiso: Blockchain can increase the operational efficiency of the business.

Interviewee: Four.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Three.

Sibusiso: The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Four.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Five.

Sibusiso: And lastly, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Four.

Sibusiso: Four, okay. So that's the last question on part three. And now we move onto the last section part four. Here, we'll also be rating from one up to five, the behaviour intention, perceived usefulness, perceived easy to use and technology task feed. So on the behaviour intention section, we'll be using a scale one to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; five, definitely would use. So the first question under behaviour intention is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: A four.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: Okay. The next section, perceived usefulness. It's using a five point Likert scale, from one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. So the first question there is, blockchain technology is the next-generation business process improvement software.

Interviewee: Four.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Two.

Sibusiso: Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Four.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Three.

Sibusiso: Blockchain-based accounting will greatly reduce the time and cost of performing auditing.

Interviewee: Four.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Five.

Sibusiso: And lastly, blockchain enables a real-time fraud detection scheme.

Interviewee: Two.

Sibusiso: Okay, thank you very much. We've come to the end of the interview.

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Transcription of Interview – P013

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview at a logistics company, the date is the 10th of January, 2020, and the time is twenty-eight minutes past eight in the morning; so I'll start with part A of the questionnaire, which is on the demographic profile. The first section is on the name, but that's optional, do you want to give your name, or we can skip that.

Interviewee: [].

Sibusiso: Okay. And then the next section is on certification, the, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: Okay, I've got a SAIPA.

Sibusiso: Okay.

Interviewee: And the highest educational background is a Bachelors.

Sibusiso: Bachelors. And then we can skip company name, and then position.

Interviewee: I'm an accountant here.

Sibusiso: Okay. Please select your field of specialisation; the options here are, audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, education, governance risk and ethics, and other.

Interviewee: Okay, so based on my studies, it's audit and assurance, but I'm doing more reporting at the moment.

Sibusiso: Corporate reporting, okay. Then part two of the questionnaire examines the level of awareness of the accountants, on blockchain technology; please specify your level of awareness on blockchain technology.

Interviewee: That's the first time I'm even hearing that.

Sibusiso: Okay, so from one to five; one, being not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; five, strongly aware.

Interviewee: I'll say one.

Sibusiso: A one, okay. I will explain it to you, so blockchain technology is a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then we move onto the accounting tasks. So the first question is, which accounting tasks are manual? So in your line of work, which accounting tasks would you..?

Interviewee: Agh, I don't really do accounting at the moment, because we're more into reporting, but if I had to put myself in that position, there's so many things that are manual;

everything that leads up to this ledger. So journals are manual, capturing is manual, doing certain recons is manual. A lot of those things are manual.

Sibusiso: Okay. How long do these manual accounting tasks take, hours a day?

Interviewee: Look, some things you only do at a certain time of the month, so you can't really say it takes you all of a day. So like you, for example, if you're doing a processing of a bank statement, you're going to do it when there's enough transactions, so you might not just start doing it once a week, it will take you the day maybe, you might find yourself doing it bi-weekly, taking a day. Journals, if you're doing month-end journals, it'll probably take you two hours, half a day, depending on the extent of the journals that you have to process. And then that probably answers your question on how frequent are these tasks done. It depends on the task at hand. A journal is not a thing you do every day, so you might only do it once a month. Or sometimes you might find a specific journal, which is not a normal journal done during ordinary course of activities, and it might be special. Other than that, certain of those things are either weekly or monthly, I would say.

Sibusiso: Okay. And then the next question is, how will the automating of the accounting tasks impact your work schedule?

Interviewee: At least maybe we'll have nicer deadlines on when the things will be done.

Sibusiso: Yes, so maybe you'll have.. it will free up more of your time to do other things as well.

Interviewee: I think.. yes, it does lend you some spare capacity in terms of time, to do other things; to do those ad hoc tasks that fall onto your table, when you least expect it to.

Sibusiso: Yes, okay. And then the last question on this section is, which task can be automated with blockchain technology?

Interviewee: Look, a lot of the things I think, are manual, because I mean, here it's a distributed ledger system, but some things need to be done manually, in order for it to get onto that level, so processing can't be automated, that required human intervention, that somebody needs to do it. But certain journals, I suppose, can be automated, certain recons can be. But I don't think everything can be automated, because for you to have something to work with, requires a human to either capture it…

Sibusiso: Yes, to make sure that it's right, yes.

Interviewee: And like you say, there is also, even after that's there, someone needs to sign it off, somebody needs to check it. Yes, there is a system that can maybe do some of those things, but then it needs to come back to manual, because things can go wrong.

Sibusiso: Yes, true. And with accounting you need to be extra vigilant.

Interviewee: Yes, definitely.

Sibusiso: Okay, thank you. Now we move to the next part of the questionnaire, this determines the level of likelihood that blockchain technology is impacting the accounting profession. The items will be rated using a five point Likert scale, ranging from one to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; five, extremely likely. So the first statement is, blockchain-based accounting will reduce the auditing cost and time. So which one would you rate it, from one to five?

Interviewee: Likely.

Sibusiso: Likely, so a four, okay. Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: I would say, four, as well.

Sibusiso: Four as well. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals; meaning to be the best system for you to use for journals.

Interviewee: Three. It's also going to depend very much on the users of the systems.

Sibusiso: Yes. Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Likely, probably.

Sibusiso: Four, okay. Blockchain will be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Likely.

Sibusiso: Four as well. Blockchain can increase the operational efficiency of the business.

Interviewee: Four.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Also four.

Sibusiso: Also four. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: I'd say three.

Sibusiso: Okay. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Four.

Sibusiso: Four. Technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Four.

Sibusiso: Four, okay. Thank you very much. Now we move to the last section of the questionnaire, which examines the effect of the perceived usefulness, perceived to use, and technology task fit to behaviour intention, to use blockchain technology. The items will be rated using a five point Likert scale, ranging from one to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So under behaviour intention, the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: I'd say it almost sounds the same. Four.

Sibusiso: Ja, it's just intend and hoping.

Interviewee: Intend and hoping.

Sibusiso: And then, the other statement is, I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Three.

Sibusiso: Okay. And then the next section, perceived usefulness. So this will be rated from one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. So the first statement is, blockchain technology is the next-generation business process improvement software.

Interviewee: Three.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Four.

Sibusiso: Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Four.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Three.

Sibusiso: Blockchain-based accounting will greatly reduce the time and cost of performing auditing.

Interviewee: Three.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Three.

Sibusiso: And the last one is, blockchain enables a real-time fraud detection scheme.

Interviewee: Four.

Sibusiso: Thank you very much. We've come to the end of the interview.

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Transcription of Interview – P014

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview at a logistics company; the date is the 10th of January, 2020, and the time is five minutes to nine in the morning; so I'll start with part A of the interview, and this section is on the demographic profile. The first section is on the name, this is optional, so you can skip it if prefer.

Interviewee: [].

Sibusiso: Okay. And then certification options here are, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: CIPA, the South African Institute of Professional Accountants.

Sibusiso: Okay. And then, the highest educational background? We've got Bachelors, Masters, and Doctoral programme.

Interviewee: Bachelors.

Sibusiso: And then company name we'll skip, and then the position?

Interviewee: Accountant.

Sibusiso: And then we move onto the field of specialisation. The options here are, audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, education, governance risks and ethics, and other.

Interviewee: So I would lean more towards corporate reporting. I'm also obliged in terms of tax, and financial management, I guess, in terms of reviewing if figures are correct. And corporate reporting would be the main one.

Sibusiso: ..the main.. okay. And then we move to part two of the questionnaire, this is on the awareness of the accountant on blockchain technology; so from one to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; five, strongly aware. Please specify your level of awareness on blockchain technology?

Interviewee: I would say, one.

Sibusiso: One. Okay, let me just give a brief definition of blockchain; blockchain technology is a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then we move onto the accounting tasks. So the first one.. so in your area, which accounting tasks are manual?

Interviewee: In my accounting tasks that are manual, would be the reviewing of [..] tax is manual. Preparation of the reports is also manual. And I would also say, the retrieving of the information from the accounting system, is also manual.

Sibusiso: Okay. And the second question is, how long do these manual accounting tasks take? Like how many hours a day, roughly?

Interviewee: I'd say.. if I were to single out one, it can take up to half a day, ja.

Sibusiso: Okay. And then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: So these tasks are monthly.

Sibusiso: Monthly, okay. How will the automating of the accounting tasks impact your work schedule?

Interviewee: It would definitely free up more time, in terms of me adding more value as an accountant, ja, rather than being a data capturer / reviewer, in terms of that.

Sibusiso: Yes, okay. Then the last question on the task is, which tasks can be automated with blockchain technology?

Interviewee: I think of all the tasks, like literally from uploading information into the accounting system, and also ensuring it's accuracy, that can all be automated.

Sibusiso: Ja, okay thanks. Now we move to the part three of the questionnaire; this determines the level of likelihood that blockchain technology has impact on the accounting profession. The items would be rated using a five point Likert scale, ranging from one to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; five, extremely likely. So the first statement is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: I'd say, extremely likely.

Sibusiso: Simplification of procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: I'd say, likely.

Sibusiso: A Four. Blockchain plays a pivotal role for development to become the system of systems, or journal of journals; meaning it to be the best system to use for passing of journals.

Interviewee: ..going forward. I'd say four.

Sibusiso: Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Four.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: I'd say, three, there.

Sibusiso: Okay. Blockchain can increase the operational efficiency of the business.

Interviewee: Four.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Three.

Sibusiso: The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Five.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Three.

Sibusiso: Technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Four.

Sibusiso: Okay, thank you. We've come to the end of part three, and now we're moving to the last section. This questionnaire examines the effect of the perceived usefulness, perceived to use, and technology task fit to behaviour intention, to use blockchain technology. The items will be rated using a five point Likert scale, so for the first three questions on behaviour intention, it will be one to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Five.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Five there as well.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: I'd say five, again.

Sibusiso: The next section is the perceived usefulness; and there it's a Likert scale of one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; five, strongly agree. The first statement there is, blockchain technology is the next-generation business process improvement software.

Interviewee: Five.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: I'd say four.

Sibusiso: Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: I'd say, four.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: I'd say, two.

Sibusiso: Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: Four.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Four.

Sibusiso: And then lastly, blockchain enables a real-time fraud detection scheme.

Interviewee: I'd say, four.

Sibusiso: Okay, thank you very much. We've come to the end of the interview.

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Transcription of Interview – P015

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview at a logistics company; the date is the 10th of January, 2020, and the time is ten minutes past nine in the morning; so I'll start with part one of the questionnaire, on the demographic profile. Please can I have your name; this is optional, we can skip it if you want.

Interviewee: Can we skip it?

Sibusiso: Okay. And then the next section is on the certification, the options, they are, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: Yes, CA(SA).

Sibusiso: And then, the highest educational background? We've got Bachelors, Masters, and Doctoral programme.

Interviewee: Bachelor.

Sibusiso: And then company name we'll skip, and then move onto your position.

Interviewee: Corporate reporting.

Sibusiso: And then we'll go to the field of specialisation. The options there are, audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, education, governance risks and ethics, and other.

Interviewee: Corporate reporting.

Sibusiso: Okay. And then we move onto part two, this is basically on your awareness of blockchain; so on a scale of one to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please specify your level of awareness.

Interviewee: Not aware at all.

Sibusiso: Not aware, so that's one. I'll just give a brief definition of blockchain; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then I will move to your accounting tasks, what you do on a daily basis, weekly or monthly. So the first question is, which accounting tasks are manual?

Interviewee: Manual. So basically the manual stuff is reviewing of the costs, the monthly costs on a basis; preparing the journals is also manual; reviewing the recons. Ja, those are manual. Ja, I can't think of anything else.

Sibusiso: Okay. Second question is, how long do these manual accounting tasks take? How many hours a day, roughly?

Interviewee: So I think it's more towards month-end where you spend more time. So once the month is over, then you can spend two hours reviewing a recon file, with all the balance sheet recons. And then before month-end, preparing the journals, and then also reviewing the cost, which is very manual. And that could take about half a day to just see that all the cost is in the right cost centres, and it's your cost and it's not somebody else's cost, so that's the manual process.

Sibusiso: Okay. How frequent are these tasks done? Have we done this one? Is it daily basis, weekly, or monthly?

Interviewee: So I say monthly.

Sibusiso: Monthly, okay. And then, how will automating of the accounting tasks impact your work schedule?

Interviewee: But automating like what?

Sibusiso: So also these manual tasks that you've identified, if it's now automated, how will that impact your work schedule?

Interviewee: Well I'll have more time.

Sibusiso: Yes, to look at other tasks

Interviewee: Yes.

Sibusiso: Okay, thank you. And then, which tasks can be automated with blockchain technology? I know you say you're not aware of blockchain technology, but after going through some of these definitions, what do you think can be? Is it maybe journals, or..? Or if you are not aware, then you can just skip that one, okay.

Interviewee: Ja, no, I can't see how it would.

Sibusiso: Okay, right, ja. Okay, now we move to part three of the questionnaire, which determines the level of likelihood that blockchain will impact the accounting profession. So it would be rated using a five point Likert scale ranging from one to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; five, extremely likely. So the first statement is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: I don't see how. okay, say neutral.

Sibusiso: Neutral, okay. Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Okay, maybe it's likely.

Sibusiso: Likely, so a four.

Interviewee: When the technology will be able to see how accurate the data is, in the system, and then we don't have to review it. So likely.

Sibusiso: Ja. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals; basically meaning it to be thee system to use for posting journals, ja.

Interviewee: But we have like accounting systems, like SAP, that post journals. So how would blockchain.

Sibusiso: Well, the definition is that blockchain is transparent, there's traceability, you can see what all the transitions that happen, all the parties that are in the transactions, can see at any point.

Interviewee: But SAP can tell you the same thing. It can tell you all the users, it can tell you who posted, who released it, it gives you supporting documents, it gives you.. I'm just trying to understand how.

Sibusiso: Ja. So with this one you don't need a platform.

Interviewee: Because like somebody has to go now and do the debits and credits; would blockchain be able to do that?

Sibusiso: Yes, that's what they are saying, yes.

Interviewee: That's what you are saying?

Sibusiso: So one party in the transaction would be between the different parties; so the one party will post a journal, the other one in the same transaction, will approve, this one will see this one has approved.

Interviewee: So everything will be done in the system and there's no manual, so there's no manual person that can go and say, approve this or post this journal from there, so there's no path post.

Sibusiso: Yes. And there's no central system like SAP, so it's computers speaking to another computer. So you don't need like SAP as a middle software. So I, with my own computer, can deal with you directly, if we are on the same network, blockchain.

Interviewee: Okay.

Sibusiso: Ja.

Interviewee: Okay. I'll say, likely.

Sibusiso: Likely, four. Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Likely.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Real-time?

Sibusiso: Yes, immediately, you can detect fraud.

Interviewee: I'd say unlikely.

Sibusiso: Unlikely. Blockchain can increase the operational efficiency of the business.

Interviewee: Likely.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Likely.

Sibusiso: The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: I'd say unlikely.

Sibusiso: Unlikely, that's two. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: I say extremely likely.

Sibusiso: Five, okay. Technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Likely.

Sibusiso: Likely, okay. So we move onto the last section which is part four of the questionnaire, which looks at the perceived usefulness, perceived to user and technology fit to behaviour intention, to use blockchain technology. Items would be rated using a five point Likert scale, ranging from one to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; five, definitely would use. So the first statement on behaviour intention is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: But then now that's a business, that's a company's decision, because I can't decide of my own.

Sibusiso: Ja, but if it was just you.

Interviewee: If it was just me?

Sibusiso: Yes, not speaking for the company.

Interviewee: Okay, so I might use it.

Sibusiso: So which one would it be?

Interviewee: Three.

Sibusiso: Three. I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Is it not the same as this first one? Oh, I intend and hoping.

Sibusiso: Ja.

Interviewee: (talks to self) Probably use.

Sibusiso: Probably use, so a four. And then, I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Probably would use.

Sibusiso: Okay, that's a four. And then we move onto the perceived usefulness, also rating from a scale of one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; five, strongly agree. The first one is, blockchain technology is the next-generation business process improvement software.

Interviewee: Agree.

Sibusiso: Agree, that's four. Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Agree.

Sibusiso: Agree, that's four. Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Agree.

Sibusiso: Was a four. Transactions submitted to a public ledger, do not need third party validation.

Interviewee: I disagree.

Sibusiso: Two. Blockchain-based accounting will greatly reduce the time and cost of performing auditing.

Interviewee: I disagree.

Sibusiso: Two. Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Agree.

Sibusiso: That's a four. And then lastly, blockchain enables a real-time fraud detection scheme.

Interviewee: I'd say, neutral.

Sibusiso: Neutral, okay, so that's a three. Okay, we've come to the end of the interview.

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Transcription of Interview – P016

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 10th of January, 2020, and the time is twenty minutes to one; so I'll start the survey on part 1, which is the demographic profile. The first part is the name; this is optional, we can skip it if you prefer.

Interviewee: [].

Sibusiso: Okay. And then certifications, I've got, CA(SA), CFA, ACCA, SIMA, CIA, and other.

Interviewee: CA(SA).

Sibusiso: Okay. Then, highest educational background? We've got Bachelors, Masters, and Doctoral programme.

Interviewee: It would be bachelor.

Sibusiso: Okay. Then company name we'll skip, and then go to the position.

Interviewee: General Manager Finance.

Sibusiso: Okay. And then the next section is, the field of specialisation. We've got audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, education, governance risks and ethics, and other.

Interviewee: Mine would be financial management.

Sibusiso: Okay. And then we move onto part two of the questionnaire which examines the level of awareness; so from one to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please specify your level of awareness on blockchain technology, from one to five?

Interviewee: I would say, I'm moderately aware, so that would be a four.

Sibusiso: A four, okay, thanks. Just to give a brief definition of blockchain technology; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then we move onto the accounting tasks. So the first question there is, which accounting tasks are manual? So in your line of work, what do you find that is manual

Interviewee: It's reporting, I would say, reporting, and specific items, you can't readily obtain from the system, so you have to do manual work, to get the output.

Sibusiso: Okay. Then how long do these manual accounting tasks take? So how many hours a day?

Interviewee: It depends on the requests, sometimes it could take a day, and sometimes it could take two hours.

Sibusiso: Okay. And then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: I would say, twice a week, we would generally do, it depends on the time in the month as well, so if it's month-end, it's generally daily, but if it's not month-end, then it's more twice a week, kind of thing.

Sibusiso: Okay, alright. And then, how will automating of these accounting tasks impact your work schedule?

Interviewee: I think automation would really bring about more analysis and review, and less input and doing stuff, because you're so busy manually putting stuff together, you don't really have a lot of time to review and add value.

Sibusiso: That's right, ja.

Interviewee: Yes, so I think if we have automation, and we can rely on the fact that there's accuracy and completeness in the automation, my time is more valuable to the company, if I'm reviewing and analysing and picking out problems, and giving solutions on how we can resolve those problems. So I think I can add more value if we have automation.

Sibusiso: Okay. And the last question on the accounting task is, which tasks can be automated with blockchain technology?

Interviewee: For us, in reporting, a lot of the month-end tasks can be automated, mainly your journals, your stuff that you do monthly, on a routine basis, if that is automated, it takes a lot of work away, manual work. Also from a reporting perspective, I'd be able to extract the reports I require, instead of being able to spend hours putting the report together. It will be a click of a button, extracting it, and reviewing it.

Sibusiso: Okay, alright, thank you very much. And then we move onto part three of the questionnaire. This section we're just rating from one up to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So I'll be giving ten statements, and then you'll be rating them, from one up to five. So the first statement is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Five, extremely likely.

Sibusiso: Okay. Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Five.

Sibusiso: Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: Five.

Sibusiso: Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Five.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: I think, five.

Sibusiso: Blockchain can increase the operational efficiency of the business.

Interviewee: Definitely five.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Okay, I'm not hundred percent sure about the cryptocurrency, but I think if it's digitalised, we definitely will make it more transparent. So I would think, four.

Sibusiso: Four. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Yes, definitely, five.

Sibusiso: Five. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Five. If they don't they're going to get left behind.

Sibusiso: Ja. And then, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Five.

Sibusiso: Okay, thank you very much. Now we move onto the last section of the questionnaire. It's also on a Likert scale of one up to five. So the behaviour intention is on a different scale, which is one to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Five.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: I think it would be a five. So hopefully we will be implementing blockchain here, because I think it would really bring about a lot of automation. So I'm not sure where the

company's going with the future, but I think it would be part of the solution and the strategy to drive automation.

Sibusiso: Yes, and then the last one on the behaviour and intention is, I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: I think, ja, it would be a five for me, if we are given the privilege of using it.

Sibusiso: Okay. And then the rest of the statements will be rated on a different scale, it's still a Likert scale, one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. So the first one there is, blockchain technology is the next-generation business process improvement software.

Interviewee: Five.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: I think five, ja.

Sibusiso: Okay. And then, blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Five.

Sibusiso: Okay, and then, transactions submitted to a public ledger, do not need third party validation.

Interviewee: It might need third party validations. So because someone has to check it, and approve it, so I would say, three.

Sibusiso: Three. Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: Definitely, if the data is accurate and valid, it would definitely be a five, ja.

Sibusiso: A five, okay. Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: I think, yes, it would, because the integrity of data will be there. It has the tool to identify fraud, identify errors, pick up unusual transactions, that kind of thing, so I would say, five.

Sibusiso: Five, okay. And then the last one is, blockchain enables a real-time fraud detection scheme.

Interviewee: From what I've heard I think that's true, so, five, ja. It looks at unusual transactions and picks out the one, from what I've heard.

Sibusiso: Yes, okay. Thank you very much for the interview. So it's done now

Transcription of Interview – P017

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 10th of January, 2020, and the time is six minutes to one; so I'll start with the first part of the questionnaire, which is on the demographic profile. Please can I have your name; this is optional, we can skip it if you prefer

Interviewee: [].

Sibusiso: Okay. And then your certification, I've got, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: Okay, I've got BCom, Accounting, Honours, CTA, and part one of the CA(SA).

Sibusiso: Okay. And highest educational background? I've got Bachelors, Masters, and Doctoral programme.

Interviewee: That's most probably then Bachelors.

Sibusiso: Okay. And then company name we'll skip, and then we'll go to the position that you occupy.

Interviewee: My position with?

Sibusiso: Yes, your position at the company.

Interviewee: Financial Management.

Sibusiso: Okay. And then your area of specialisation. The options are, audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, education, governance risks and ethics, and other.

Interviewee: Let's say Financial Management. It's most probably not that really.

Sibusiso: Okay. Ja, well the dominant one, it would be.

Interviewee: Financial management, let's stick to that one.

Sibusiso: Okay. And then part two is on the awareness of blockchain; it will be rated from one to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. So please can you specify your level of awareness on blockchain technology?

Interviewee: I was actually not aware of it. It's actually, one.

Sibusiso: Okay, so it's a one. Okay, so just a brief definition; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability,

security and speed. And then so we can move onto the accounting tasks. So the first question is, which accounting tasks are manual?

Interviewee: Which are not manual? It's basically the typing of journal entries, doing recons, capturing of Hyperion packs, is actually basically manual. Then ja, all the other recons that you do, except when you've written a report and you run the reports. But.. so ja, so it's basically capturing of journals, the typing of the journals before you can capture it. The doing of the recons. And capturing of the Hyperion packs.

Sibusiso: Okay. And then, how long do these manual accounting tasks take? How many hours a day, for instance?

Interviewee: It's not every day. So like the cashflows and that, would take you.. if you only work on that, it might take you, say, a day, because I've got my Head Office, I've got the Advanced Head Office, I've got Milotek, I've got Conree, I've got.. ja, I've got a few.

Sibusiso: Okay, alright. And then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: These are monthly.

Sibusiso: Monthly, okay. How will the automating of the accounting tasks impact your work schedule?

Interviewee: That would be very helpful, it will shorten the time that you work on that.

Sibusiso: Ja, and free up time to do more things, ja, okay. And then, which tasks can be automated with blockchain technology? So if you're not aware, that much, of blockchain, you can skip this one.

Interviewee: Okay, maybe, because I don't know that much. It's very interesting, actually. I think if this thing is set up..

Sibusiso: Ja, because mainly on transactions that they do on blockchain, so that's why your cryptocurrencies, your bitcoin, they all operate on a blockchain technology. So everyone in the transaction can see what's happening. So if there's three people involved in a transaction, it's visible to everyone, ja so it's.. but ja, it's still in one of those technologies being introduced.

Interviewee: It's almost like what they're trying to do with this click sends and the way they want to go with SAP.

Sibusiso: Yes, ja, because it's SAP as well, you'll be able to go down to source and.. ja. So it's the same..

Interviewee: That's interesting.

Sibusiso: Ja, so the visibility is there, main thing, so ja.

Interviewee: That's nice. But you still need the capturing.

Sibusiso: Yes, so you still need to..

Interviewee: Ja, you need to..

Sibusiso: Ja, but there would be time saved if you're auditing something, ja.

Interviewee: Ja, for reporting purposes and that, so basically to capture the pack and those things, it's because you just basically pull it in.

Sibusiso: Yes, true. So the next section, we're using a five point Likert scale, ranging from one to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; five, extremely likely. So I'll just mention the statements, and then you'll rate it one up to five. So the first one is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: That's likely, it's four.

Sibusiso: Four. Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Four.

Sibusiso: Four. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals; meaning that it will be thee system to use for posting journals.

Interviewee: Four.

Sibusiso: Okay, blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: That would be.. let's make it, for now, a three.

Sibusiso: A three, okay. Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: That's four.

Sibusiso: Okay. Blockchain can increase the operational efficiency of the business.

Interviewee: That's definitely, I think, that's a five.

Sibusiso: Okay. Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Goodness gracious me. A four.

Sibusiso: The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Definitely a four.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: I think that's a five.

Sibusiso: Okay. And then the last one in this section is, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: That's a four.

Sibusiso: A four, okay, thank you. Now we move onto the last section; it's also on a Likert scale. So we'll first look at the behaviour intention. The rating is on a scale of one to five; one, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: That's a four.

Sibusiso: A four. I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Ja, we're definitely going to use it, so it's a five.

Sibusiso: A five. I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Ja, that's a five.

Sibusiso: A five, okay. Then the rest of the questions, it's also a Likert scale, one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. So the first one there is, blockchain technology is the next-generation business process improvement software.

Interviewee: That's a four.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: That's a four.

Sibusiso: Okay. Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Okay, five.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: That one, I'll say, a three.

Sibusiso: Three. Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: That's a four.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: That's a four.

Sibusiso: And the last, blockchain enables a real-time fraud detection scheme.

Interviewee: That's a four.

Sibusiso: Four, okay. Thank you very much, we're done with the interview.

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Transcription of Interview – P018

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview at a logistics company, the date is the 10th of January, 2020, and the time is twelve minutes past one; so I'll start with the first section on the questionnaire, which is part 1, demographic profile. Please can you state your name; this is optional, you can skip it if you..

Interviewee: [].

Sibusiso: Okay, thank you. And then certifications, we've got, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: I've got my Honours, Financial Management.

Sibusiso: Okay. Then, highest educational background? We've got Bachelors, Masters, and Doctoral programme.

Interviewee: Bachelors.

Sibusiso: And then company name we'll skip, to the position.

Interviewee: Group Financial Manager.

Sibusiso: Okay. And then the area of specialisation. We've got audit and assurance, financial management, corporate reporting, strategic planning and performance management, tax, governance risks and ethics, and other.

Interviewee: Financial management.

Sibusiso: Okay. And then part two of the questionnaire is, your awareness on blockchain; rating from one to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; five, strongly aware. Please specify your level of awareness on blockchain technology?

Interviewee: One.

Sibusiso: One, okay. So just a brief description; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. So then we come to the tasks that you do on a normal basis. The first question is, which accounting tasks are manual?

Interviewee: Journals, processing of packs, and recons, basically.

Sibusiso: Okay. And how long do these manual accounting tasks take? How many hours a day, for instance?

Interviewee: It all depends what time of the month it is. So I would say, maybe in total, one or two days.

Sibusiso: Okay. Then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: Monthly.

Sibusiso: And then, how will automating of the accounting tasks impact your work schedule?

Interviewee: It will help a lot.

Sibusiso: Okay. And then, which task can be automated with blockchain technology? We can skip that one as you selected a one on.. not at all aware.

Interviewee: Ja.

Sibusiso: Okay. And then we move onto part three, so this will be rated from one up to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; four, extremely likely. So the first statement is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Four.

Sibusiso: Simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Four.

Sibusiso: Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: Three.

Sibusiso: Okay. Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Four.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Five.

Sibusiso: Blockchain can increase the operational efficiency of the business.

Interviewee: Four.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Four.

Sibusiso: The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Four.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Three.

Sibusiso: And then the last one in this section is, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Four.

Sibusiso: Four, okay, thanks. And now we move onto the last section, it's also on a rating of one up to five. So behaviour intention would be on a Likert scale, one up to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So the first statement there is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: And then on the rest of the questions it's also a Likert scale, one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. So the first one there is, blockchain technology is the next-generation business process improvement software.

Interviewee: Three.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Four.

Sibusiso: And then, blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Four.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Four.

Sibusiso: Blockchain-based accounting will greatly reduce the time and cost of performing auditing.

Interviewee: Four.

Sibusiso: Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Four.

Sibusiso: And the last one is, blockchain enables a real-time fraud detecting scheme.

Interviewee: Four.

Sibusiso: Okay, thank you very much, we've come to the end.

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Transcription of Interview – P019

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 10th of January, 2020, and the time is twenty-two minutes past one; so I'll start with the first part, part one, on the demographic profile. Please can I have your name; this is optional, you can skip it if..

Interviewee: [].

Sibusiso: Okay. And then certifications, I've got options of, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: Honours

Sibusiso: Okay. And then, highest educational background? I've got Bachelors, Masters Degree, Doctoral programme.

Interviewee: Bachelor.

Sibusiso: Okay. Company name we'll skip, and then we'll move to the position.

Interviewee: Oh, you want my position, Project Accountant.

Sibusiso: Okay. And then the field of specialisation; we've got several options, audit and assurance, financial management, corporate reporting, strategic planning and performance management, tax, governance risks and ethics, and other.

Interviewee: Financial Management.

Sibusiso: Okay. Then part two is on your awareness on blockchain; so this would be a rating of one up to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware.

Interviewee: I'll select, three.

Sibusiso: Three, okay. Now, just to give a brief definition of blockchain; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then on the accounting tasks, the first question is, which accounting tasks are manual? So in your normal day-to-day.

Interviewee: That would be journals, inter-company confirmations, are manual on my side. Resolutions also tend to be manual. I'm just trying to think what else is there. And capturing of input into the actual ledger system can also be manual.

Sibusiso: Okay. Then how long do these manual accounting tasks take? How many hours a day, for instance?

Interviewee: Well, in my line of work, you could say, could maybe take two days of my month, because it is small companies, so it's not big volume driven. So its small companies, so you can say, two to three days of the month, okay. Okay, then also what's manual, is also the recons, so you can add another day for recons as well.

Sibusiso: Oh okay. And then, how would the automating of accounting tasks impact your work schedule?

Interviewee: Well, it would free up those two to three days of my time, if it is automated.

Sibusiso: Yes, okay. And which tasks can be automated with blockchain technology?

Interviewee: Maybe resolutions, because that we need like signing and tracing of the signing, when it was signed, resolutions. Ja, I think it's basically resolutions and maybe most of my journal entries are to do with transfers between companies, so maybe those can maybe be transfers of funds between companies, so that could maybe go via the blockchain technology that traces the steps from when the party got the money and when it moved out and all of that.

Sibusiso: Ja. Okay, thanks. So the next part is part three; it's on a Likert scale of one to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So I'll be reading out the statements, and then rating. So the first one is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Most probably, four, likely.

Sibusiso: Okay. The simplification of the procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: I'll say neutral.

Sibusiso: Okay, three. So then, blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: Four.

Sibusiso: Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: I'll also say, four.

Sibusiso: Okay. Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Four.

Sibusiso: And then, blockchain can increase the operational efficiency of the business.

Interviewee: Let me go, three.

Sibusiso: Okay. Digital currency index will be the key to transparency in cryptocurrency transactions.

Interviewee: I would say, three.

Sibusiso: Okay. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Four.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Five.

Sibusiso: And then the last one in this section is, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Five.

Sibusiso: Okay, thanks. Then we move onto the last section. It's also on a Likert scale, one to five, so on the behaviour intention, one to five. One, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. The first statement there is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: You can say, four.

Sibusiso: Okay. And then, I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Four, as well.

Sibusiso: Okay. I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: Okay. And then the rest of the questions, also on a Likert scale, one to five. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. So the first one there is, blockchain technology is the next-generation business process improvement software.

Interviewee: Four.

Sibusiso: Okay. And then, blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: I'd say, four.

Sibusiso: Okay. Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Let's say, three, for now.

Sibusiso: Okay. Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Three. Let's just keep it neutral.

Sibusiso: Ja. Blockchain-based accounting will greatly reduce the time and cost of performing auditing.

Interviewee: Say, four.

Sibusiso: Okay. The use of blockchain, greatly simplifies integrity verification procedures.

Interviewee: Four.

Sibusiso: Okay. And then lastly, blockchain enables a real-time fraud detection scheme.

Interviewee: Four.

Sibusiso: Okay. Thank you very much. We've come to the end.

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Transcription of Interviews – P020

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 17th of January, 2020, and the time is twenty to eight in the morning; I'm just going to start with the questionnaire on part 1, which is on the demographic profile. Please can you state your name; this is optional, you can opt to skip it if you want.

Interviewee: []

Sibusiso: Okay. And then certifications, we've got, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: I think my highest would be other, would be CTA.

Sibusiso: Okay. And then, highest educational background? We've got Bachelors, Masters, and Doctoral programme.

Interviewee: Mine would be Bachelor.

Sibusiso: Okay. And then please can I have your company name and position?

Interviewee: It's Deloitte and I'm an Audit Senior.

Sibusiso: Okay, thanks. And then we've got the area of specialisation, we've got auditing assurance, financial management, strategic planning and performance management, tax, corporate reporting, governance risks and ethics, and other.

Interviewee: I'm in auditing assurance.

Sibusiso: Okay, thanks. And then part two, we're going to rate one up to five, your level of awareness. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware. Please can you specify your level of awareness on blockchain technology?

Interviewee: I think a four.

Sibusiso: A four, okay. I'll just give a brief definition of blockchain technology; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And then we move onto the accounting tasks. So on your day-to-day tasks that you do, which accounting tasks do you think are manual?

Interviewee: I think that's processing journals, doing calculations, that's pretty manual, cleaning of data, because systems often don't generate a data copy for us. I don't know if that answers your question.

Sibusiso: Yes, it does. And how long do these manual accounting tasks take? How many hours a day, for instance, if you can..?

Interviewee: Sure, so I think out of all of them, cleaning data takes us very long in our field, so sometimes it can be four to six hours every day, on average, ja.

Sibusiso: Okay. And then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: I'd say weekly.

Sibusiso: Okay. And how will automating of accounting tasks impact your work schedule?

Interviewee: It would impact us majorly, because if you had proper systems that generated proper schedules for us, it would make our testing a lot faster and efficient, it would improve the whole system.

Sibusiso: Alright. Okay, thanks. And then, which task can be automated with blockchain technology? Can you think of any of the manual tasks that can be automated by blockchain? If there's nothing we can skip this one, if there's nothing that comes to mind.

Interviewee: So based on my understanding of it, I think it would be helpful if we could generate our own reports, directly, like our own GL and stuff, from the system, if its blockchain then you can track every step of the way. So it will make our audit trail a lot easier, we don't have to get physical invoices and stuff.

Sibusiso: Yes, and it would be instant information at your fingertips.

Interviewee: Yes.

Sibusiso: Yes. Okay, thank you. Now we move onto part three of the questionnaire. It's on a five point Likert scale. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So I'll read out ten statements, and then we'll rate them on the one to five Likert scale. So the first one is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: A five.

Sibusiso: Okay. Simplification of procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: I think, a four.

Sibusiso: Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: I think a five.

Sibusiso: Blockchain would be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: Five.

Sibusiso: Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: I think it's three.

Sibusiso: Okay. Blockchain can increase the operational efficiency of the business.

Interviewee: Five.

Sibusiso: Digital currency index will be the key to transparency in the cryptocurrency transactions.

Interviewee: Five.

Sibusiso: The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Five, definitely.

Sibusiso: Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Four.

Sibusiso: Technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: I think that's a five, ja.

Sibusiso: Okay, thanks. And now we move onto the last section of the interview. Part four is also on a five point Likert scale; we look at the behaviour intention, perceived usefulness, and perceived ease of use and technology task fit. So for the behaviour intention, it's a Likert scale of one to five; one, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; and five, definitely would use. So the first statement under behaviour intention is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: I think, four, yes.

Sibusiso: I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Five.

Sibusiso: I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: I think that's a three.

Sibusiso: Okay. And then the rest of the statements, it's also in a five point Likert scale. One being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. Blockchain technology is the next-generation business process improvement software.

Interviewee: Five.

Sibusiso: Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Four.

Sibusiso: Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Five.

Sibusiso: Transactions submitted to a public ledger, do not need third party validation.

Interviewee: Two.

Sibusiso: Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: Five.

Sibusiso: Use of blockchain, greatly simplifies integrity verification procedures.

Interviewee: Five.

Sibusiso: Blockchain enables a real-time fraud detection scheme.

Interviewee: Four.

Sibusiso: Okay, thank you very much. We've come to the end of the interview.

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Transcription of Interview – P021

for Sibusiso Malinga
January 2020

Sibusiso: This is Sibusiso Malinga, conducting an interview on blockchain technology; the date is the 16th of January, 2020, and the time is twenty minutes after four in the afternoon; so I'll start with the questionnaire on part 1, which is demographic profile. Please can you state your name; this is optional, we can skip it if you opt to.

Interviewee: [].

Sibusiso: Okay. And then the certification, I've got options of, CA(SA), CFA, ACCA, CIMA, CIA, and other.

Interviewee: So I will be getting my CA(SA), by the end of this year.

Sibusiso: Okay. And then, your highest educational background? I've got Bachelors, Masters, Doctoral; I don't have Honours, as an option.

Interviewee: Ja, it's Bachelor, but highest is my post articles

Sibusiso: Honours?

Interviewee: Ja.

Sibusiso: Okay. And your company name?

Interviewee: Deloitte.

Sibusiso: Okay, and then the position you hold?

Interviewee: Third year senior audit manager.

Sibusiso: Okay. And then the area of specialisation, I've got options below, audit and assurance, financial management, strategic planning and performance management, tax, corporate reporting, governance risks and ethics, and other.

Interviewee: Audit and assurance.

Sibusiso: Okay, thank you. Now we move onto part two of the questionnaire, it's on your level of awareness on blockchain; it's rated from one up to five. One, being, not at all aware; two, slightly aware; three, somewhat aware; four, moderately aware; and five, strongly aware.

Interviewee: One. Not at all aware.

Sibusiso: Okay. I'll just briefly give a definition of blockchain; it's a distributed ledger system which enables collective verification of the ecosystem, offering a huge degree of traceability, security and speed. And now we move onto your accounting tasks. So there's five questions that I ask you, relating to what you do on a day-to-day basis. The first one is, which accounting tasks are manual?

Interviewee: That would be like bank recons, creditor's recons, ja.

Sibusiso: Okay. And then, how long do these manual accounting tasks take? So how many hours a day, for instance?

Interviewee: It will depend on how many items there are, how many accounts there are, how many creditors are there. So it really depends on the nature and the company. So it can take..

Sibusiso: ..a long time, ja.

Interviewee: Must I give a specific hours, or is this okay?

Sibusiso: Approximately, but it's fine, even if..

Interviewee: Ja, it really depends on the situation.

Sibusiso: Ja, okay. And then, how frequent are these tasks done? Is it daily basis, weekly, or monthly?

Interviewee: Mostly monthly, is what I've seen for the specific examples I've given.

Sibusiso: Okay. And then, how will automating of the accounting tasks impact your work schedule?

Interviewee: They will take so much less time, and just from an auditing perspective it will be easier to test as well, because it's automated, so we just test the controls then we move on.

Sibusiso: Ja, okay. Then lastly, which task can be automated with blockchain technology? Is there anything that you can't think of that can be automated. If there's nothing that comes to mind, it's fine, we can skip this one. Because you selected one, ja, not at all aware.

Interviewee: Ja, because I don't have a deep understanding of blockchain, yes.

Sibusiso: Okay. So then we move onto part three of the questionnaire. It's on a Likert scale of one up to five. One, being extremely unlikely; two, unlikely; three, neutral; four, likely; and five, extremely likely. So I'll mention five statements, and then you'll rate them, one up to five. So the first one is, blockchain-based accounting will reduce the auditing cost and time.

Interviewee: Well, I mean, if they're going to save time, if it's going to be automated, then yes, number four, likely.

Sibusiso: Ja, okay. Simplification of procedures in the accounting data verification, by using blockchain-based accounting technology.

Interviewee: Like I don't know. I have to see this blockchain.

Sibusiso: Yes, so which one would you.. are you neutral..?

Interviewee: Ja, let me say, okay, four, likely.

Sibusiso: Four, okay. Blockchain plays a pivotal role for the development to become the system of systems, or journal of journals.

Interviewee: I'm going to say, neutral.

Sibusiso: Okay. Blockchain will be programmed, that unusual patterns of transactions can be checked immediately.

Interviewee: That would be, four, likely.

Sibusiso: Likely, okay, four. Blockchain would be capable to provide a real-time alerting schema to detect fraud.

Interviewee: Number three, neutral.

Sibusiso: Okay. Blockchain can increase the operational efficiency of the business.

Interviewee: Four, likely.

Sibusiso: Okay. Digital currency index will be the key to transparency in cryptocurrency transactions.

Interviewee: Neutral, number three.

Sibusiso: Okay. The high level of trustworthiness of accounting information in blockchain technology regime, will alter the role of accountants.

Interviewee: Ja, likely, yes, four.

Sibusiso: Likely, four, okay. Many leading organisations consider digital transformation as a part of their strategic goals.

Interviewee: Definitely, extremely likely.

Sibusiso: Okay, five. And then lastly, technology disruption is evolving due to employee and customer expectations, values and behaviour.

Interviewee: Yes, number five, extremely likely. Can I change number eight, to also number five?

Sibusiso: Okay, alright it's fine, okay. And then the last part of the questionnaire, it's on a Likert scale; the behaviour intention, the description of the scale one to five; one, being, definitely wouldn't use; two, wouldn't use; three, might use; four, probably would use; five, definitely would use. So the first statement is, I intend to use blockchain technology in accounting and / or other business processes.

Interviewee: Four.

Sibusiso: Okay. I'm hoping to use blockchain technology in accounting and / or other business processes.

Interviewee: Okay wait, number three. The first one, number three, and then the second one, number four. Sorry.

Sibusiso: Okay, then the third one is, I will continue to use blockchain technology in accounting and / or other business processes.

Interviewee: Three.

Sibusiso: Okay. And then the rest of the statements, also on a five point Likert scale; one being, strongly disagree; two, disagree; three, neutral; four, agree; and five, strongly agree. Blockchain technology is the next-generation business process improvement software.

Interviewee: Four.

Sibusiso: Four. Blockchain intends to improve the business processes that occur between companies, radically lowering the cost of trust.

Interviewee: Four.

Sibusiso: Blockchain is a special business process that makes work more efficiently and effectively.

Interviewee: Four.

Sibusiso: Four. Transactions submitted to a public ledger, do not need third party validation.

Interviewee: One.

Sibusiso: Okay. Blockchain-based accounting will greatly reduce time and cost of performing auditing.

Interviewee: Four.

Sibusiso: Okay. Use of blockchain, greatly simplifies the integrity verification procedures.

Interviewee: Three.

Sibusiso: Three. And then lastly, blockchain enables a real-time fraud detection scheme.

Interviewee: Three.

Sibusiso: Okay, thank you, we've come to the end of the interview.

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