

https://dspace.org/

Exploring the role external audit regulation in Namibia plays in ensuring the quality of financial statement audits in the country

Dikuua, Miriam B

2020
https://hdl.handle.net/10539/31486

Downloaded from a DSpace repository. https://dspace.org/

Exploring the role external audit regulation in Namibia plays in ensuring the quality of financial statement audits in the country

Thesis submitted by:

Miriam B. Dikuua

Student number: 2011867

Cell: +264 81 735 1515

Email: 2011867@students.wits.ac.za /

midikuua@yahoo.com

Date submitted: 31 October 2020

Ethics clearance number: CACCN/1188

Supervisors:

Warren Maroun and Wayne van Zijl

in fulfilment of the requirements for the degree of

Master of Commerce (Accounting)

University of the Witwatersrand

School of Accountancy

2020

Declaration of own work

I, Miriam Berenice Dikuua (student number 2011867), hereby declare that this thesis is my own unaided work. It is submitted in partial fulfillment of the degree of Master of Commerce in Accounting at the University of the Witwatersrand, Johannesburg. It has not been submitted elsewhere for the purpose of being awarded another degree or for examination purposes.



Miriam Berenice Dikuua
31 October 2020

Abstract

In Namibia external regulation of the audit profession is enforced by the Public Accountants' and Auditors' Board as well as the Institute of Chartered Accountants of Namibia, with the ultimate goal of enhancing the quality of financial statement audits. This study explored the role external audit regulation in Namibia plays in actually ensuring the quality of financial statement audits in the country and is the first research of its kind. Previous research includes the exploration of a correspondence between audit quality and reportable irregularities in South Africa, however the correspondence between external audit regulation and audit quality, specifically in Namibia, is yet to be researched. To address this gap, a mixed method approach grounded in an interpretive epistemology was employed. The opinions of audit and regulation experts on the effect that external regulations have on audit quality using a correspondence analysis instrument was sought and interviews were conducted to complement the correspondence analysis. This research is helpful to regulators and audit practitioners in gaining a better understanding of whether or not the current regulations adequately enhance audit quality, instead of being a perceived 'tick-the-box' exercise.

Keywords: Audit quality, External regulation, ISQC 1, Namibia, Public Accountants' and Auditors' Board (PAAB), Institute of Chartered Accountants of Namibia (ICAN)

Table of Contents

CHAPTER 1. INTRODUCTION 5
1.1 Context and purpose of the study 5
1.2 Significance of the study 7
1.3 Problem statement, research question and objective 7
1.4 Assumptions, limitations and delimitations 8
CHAPTER 2. LITERATURE REVIEW 8
2.1 Namibian regulatory measures 12
2.2 ISQC 1 elements of audit quality 16
CHAPTER 3. DATA AND METHOD 20
3.1 Population and sample 20
3.2 Correspondence analysis 21
3.3 Interviews 26
3.4 Validity and reliability 27
3.5 Limitations 28
CHAPTER 4. RESULTS 29
4.1 The correspondence plot 30
4.2 Analysis of the final correspondence plot 35
4.3 Views from audit experts 36
4.4 Complementary analysis 42
CHAPTER 5. CONCLUSION 47
5.1 Implications and contribution 49
5.2 Limitations and areas for future research 49
APPENDIX 51
REFERENCES 55

CHAPTER 1. INTRODUCTION

1.1 Context and purpose of the study

The audit profession in Namibia has been in existence for 67 years. Chartered Accountants (CA) resident in Namibia[1] established a Branch Association of the Cape Society of Chartered Accountants in 1955 (ICAN, 2018). This branch was the forerunner of the present-day Institute of Chartered Accountants in Namibia (ICAN) which was established in October 1990 (ICAN, 2018). The Public Accountants and Auditors Board (PAAB) was established by the Public Accountants' and Auditors' Act of 1951 as amended in 1990 [2]. While the PAAB is responsible for the regulation of the audit profession in Namibia, it had been inactive from 2007[3] with no appointed board, and only resumed operations in 2012 (IFAC, 2016). As a result, the ICAN assumed the responsibilities of the PAAB (IFAC, 2016).

Prior to 2014, to ensure compliance with all relevant audit regulations, the ICAN partnered with the Independent Regulatory Board of Auditors (IRBA) in South Africa to perform quality assurance (QA) reviews over ICAN audits performed by PAAB members offering audit services (IFAC, 2016). However, since 2014 the ICAN is no longer responsible for the implementation of QA reviews and focuses its efforts on supporting the PAAB and its members with the implementation of quality control standards to ensure a high level of audit quality (IFAC, 2016). The PAAB has since assumed the responsibility of carrying out QA reviews. Currently, this function is outsourced to a consultancy firm[4]. The PAAB is in the process of establishing a formal division to carry out this critical function. The PAAB recognises the importance of this task, especially in light of the fact that the audit function is evolving from a purely technical process to one from which clients expect more insight from auditors based on their detailed understanding of the industry in which the client operates, the client's business and business processes (Barac, Gammie, Howieson & Van Staden, 2016).

Corporate scandals have resulted in decreasing levels of confidence in the audit profession which, in turn, have led to serious questions about the integrity of the financial reporting system and the quality and usefulness of the information an audit generates (De Jager & Odendaal, 2008). These scandals resulted in the failure to meet societal expectations of faithful representation (Lohlein, 2016). They have also led to serious concerns being raised about auditor independence and audit quality in general (Firth, Rui, & Wu, 2012). The quality of the

[1] Formerly known as South West Africa before gaining independence on 21 March 1990
[2] Based on the South African Public Accountants' and Auditors' Act No.51 of 1951
[3] The PAAB had been inactive for this period because of a lack of resources, specifically the lack of an appointed board.
[4] The name of the South African based company contracted to perform these reviews cannot be provided by the PAAB, in line with confidentiality.

audit function as a means to prevent or reveal corporate fraud and gross mismanagement is being questioned by users of financial statements as a result of corporate failures which have occurred in recent years (Harber, 2018).

Audit failures[5] over the past decades have led regulators to question whether external auditors are, in fact, independent of their clients; this has led to the introduction of more stringent regulatory measures (Daniels & Booker, 2011). This is highlighted by the proliferation of external regulation, with the aim of improving minimum levels of audit quality in reaction to these corporate failures (ACCA, 2010; Barac, Gammie, Howieson, & Van Staden, 2016; Holm & Zaman, 2019; Humphrey, Kausar, Loft, & Woods, 2011)

Namibia is not alone. In the United Kingdom, the crisis of a lack of confidence in the auditors has prompted a move away from self-regulation to a greater emphasis on 'independent' audit regulation (Holm & Zaman, 2012). Similarly, in the United States of America, the establishment of the Public Company Accounting Oversight Board (PCAOB) in 2002 represented a shift from the self-regulation regime to one of statutory regulation in the hope of improving audit quality (Church & Shefchik, 2012; Holm & Zaman, 2019).

In the Namibian context, while the PAAB is charged with the legal responsibility of monitoring and maintaining the quality of services provided by registered auditors, the profession remains mostly self-regulated. Forms of self-regulation include, *inter alia,* internal practice reviews and quality assurance reviews on selected audit files. The introduction of additional external regulation in an environment which is typically self-regulated may seem redundant, as auditors operating in such an environment are regarded as sufficiently disciplined to comply with the professional auditing standards (Dikuua, Gertze, Ketjinganda, Mahindi, & Wyk, 2018).

Because of the fact that regulators increasingly attempt to enhance audit quality, resulting in a highly regulated audit environment globally (Barac, Gammie, Howieson & Van Staden, 2016) and the fact that international audit practices are present in the country (Dikuua et al., 2018), Namibia cannot remain stagnant when it comes to the introduction of new regulations and the revision of existing statutory regulation. The regulator has, in recent years, taken notable measures to ensure that external regulatory measures remain relevant.

The goal of this study is to refine our current understanding of how the Namibian audit regulation affects audit quality. For the purpose of this thesis, audit quality is based on the elements of *International Standard on Quality Control 1: Quality Control for Firms that*

[5] Enron, WorldCom and Sunbeam, for example.

Perform Audits and Reviews of Historical Financial Information, and Other Assurance and Related Services Engagements (ISQC1). External regulations are those imposed by audit regulators in Namibia, specifically the PAAB and the ICAN.

1.2 Significance of the study

A significant amount of prior audit quality research has been centred on assessing the relationship between regulatory developments and audit quality proxies (Humphrey, 2008). While these prior studies have made a valuable contribution to the understanding of the assurance function, 'we can and have to learn more from the experiences of auditors within and across different firms, contexts and nations' (Humphrey et al., 2011, p. 433).

Research relating to the Namibian audit profession is limited. This study aims to provide a new knowledge base to the historically un-researched auditing landscape in Namibia. The study provides evidence on how audit practitioners interpret and react to regulation, rather than testing audit quality indirectly by using audit quality surrogates.

The aim is not to suggest new regulatory measures but to unpack the current measures in place. Evidence is gathered directly from audit experts via correspondence analysis and bolstered by semi-structured interviews. The results of this study offer empirical evidence from a primary source. This study is important because it sheds light on whether or not the current external regulatory measures improve audit quality in Namibia.

Regulators and auditor practitioners are the key beneficiaries of this research. Regulators may find the research relevant because it deals with how regulation affects audit quality and whether their regulations are adequate or not. Audit practitioners may gain a better understanding of how external regulation is aimed at improving audit quality instead of regarding it as a 'tick-the-box' exercise.

1.3 Problem statement, research question and objective

Research on the audit environment in Namibia is scarce. A scholarly gap exists specifically in the area of external audit regulation. This study aimed to contribute to closing this gap by addressing the following research question:

What role does Namibian external audit regulation play in ensuring the quality of financial statement audits in Namibia?

The research objective of this study is to contribute to the body of knowledge in the Namibian audit environment. With the information gathered in this study, the researcher aims to develop a conceptual model illustrating links among elements of regulation and audit quality to address the above research question

1.4 Assumptions, limitations and delimitations

Audit practitioners and regulators are considered experts in this field of study (ICAN, 2018). Auditors rely on their professional judgement when making audit-related decisions.

The research does not aim to develop new external regulations. The study is also specific to a single jurisdiction (Namibia). While findings may be useful for other countries, they should be considered with caution. Lastly, this study frames audit quality using the quality control elements in ISQC 1. A review of alternate constructions of audit quality are beyond the scope of this research.

CHAPTER 2. LITERATURE REVIEW

According to professional guidance, the conventional answer to the question, 'What does an audit produce?' is that it increases confidence in the information audited (Power, 2003). It could, therefore, easily be concluded that audited financial statements are more reliable and increase public confidence in financial reporting, than do financial statements which are unaudited (ACCA, 2010). Prior literature on audit quality identified in Table A1 in the Appendix is further analysed below.

Some researchers argue that an audit is not a naturally co-ordinated series of technical steps but a societal enterprise relying on deeply embedded perspectives (Power, 2003). These perspectives are further legitimised by the notion that the social construction of the profession means that its technical function is not the only reason for audit's long-standing credibility (Watts & Zimmerman, 1983). The audit profession's standing is a function of its technical expertise which promotes professional appearance (Carrington, 2010), claims to independence (Knechel, Krishnan, Pevzner, & Shefchik, 2013) and the ritualised displays of verification which reassure stakeholders of the reliability of the financial statements on which an auditor expresses an opinion (ACCA, 2010).

These varying views lead to the perception that there may be little consensus regarding the definition and measurement of audit quality (Knechel et al., 2013), triggering the age-old question of what exactly characterizes audit quality:

> ‘Is the quality of an audit to be measured by some measure of the quality of the audited financial statements? Or is it to be measured by compliance with audit standards and regulation? Or is it the reputation of the auditor that is the best measure of quality? Or is it the efforts put it that are the best proxy for quality? Do we really know that much about audit quality already?’ (Carrington, 2010, p. 669).

Numerous indicators of audit quality have been identified. Francis (2004) has broadly researched audit tenure and its link to audit quality. ‘Audit quality can be conceptualised as a theoretical continuum ranging from low to very high audit quality’ (Francis, 2004, p. 346). Indicators such as firm size (DeAngelo, 1981), industry specialisation (Francis, 2004), office characteristics (Francis, 2011) and cross-country differences in legal systems and auditor liability exposure (Firth et al., 2012) all contribute to the quality of an audit (Francis, 2004). Some researchers also believe that the longer an audit firm maintains a relationship with their client, the more the public perceptions of auditor independence, as well as audit quality, are threatened (Daniels & Booker, 2011).

One of the most commonly used indicators of audit quality is the size of the audit firm (DeAngelo, 1981). The perception that the Big 4 audit firms (Deloitte, Ernst & Young, KPMG and PWC) produce a higher quality audit is supported by evidence that over the period 2004 – 2009, Big 4 audit practices had fewer audit quality deficiencies than second-tier audit practices had (Church & Shefchik, 2012). The fact that Big 4 firms are more inclined to have a lower rate of litigation than the smaller audit practices do (Palmrose, 1997), is supporting evidence that the size of the audit practice positively corresponds to the quality of an audit (DeAngelo, 1981; Francis, 2004). Francis (2011) also points out that the audit firm in which a practitioner works affects the level of audit quality.

The prior research focuses mainly on quality proxies, rather than on specific policies, systems and practices (Humphrey, 2008) which may contribute to better quality audits. As a result, in 2013 the PCAOB embarked on a project to develop audit quality measures and found that there are two types of audit quality indicators: output- and input-based indicators. Examples of the former include the number of frauds or financial restatements detected. Examples of the latter are processes and procedures adopted to detect fraud or the average experience level of staff members assigned to audit engagements. The result of this priority project was the audit quality framework presented in Figure 1 below.

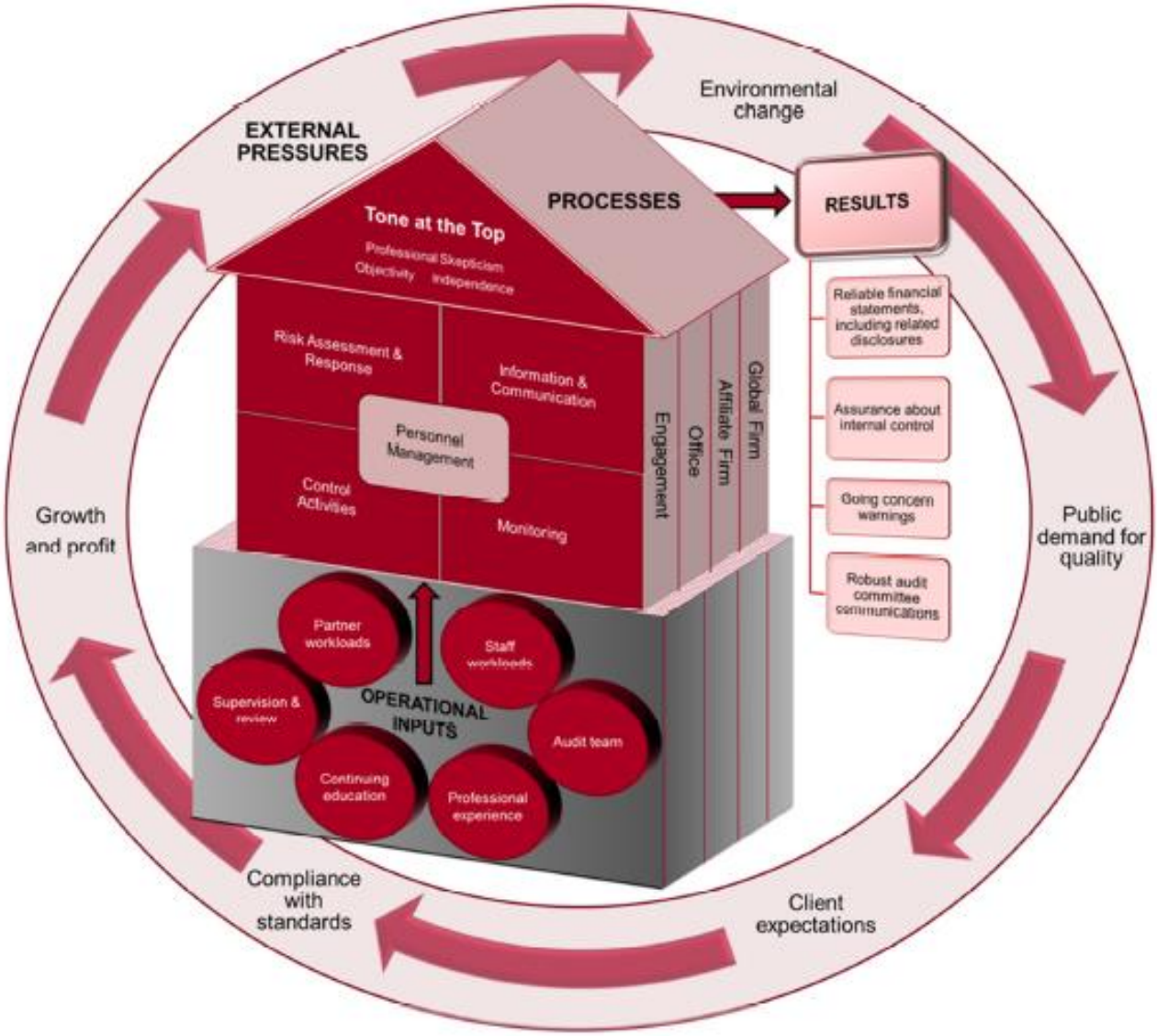


Figure 1: Audit Quality Framework (PCAOB, 2013, p. 6)

Operational inputs can be analysed in more detail. Partner and staff workloads play a significant role in the delivery of quality audits. Excessive utilisation percentages and/or workloads, as well as an unreasonable ratio of partners to staff, may result in the engagement team not having sufficient time to execute and/or supervise and review audit procedures appropriately, which in turn may impact audit quality (PCAOB, 2013). The number of chargeable hours spent on excessive client responsibilities and undue audit team turnover and transfers, usually resulting from a lack of efficient staff planning, on an engagement team may also have an adverse effect on audit quality (PCAOB, 2013). The number of years of experience of the engagement team members, the team's composition and competence, in addition to their expertise and proficiency in the industry within which their client operates, positively contribute to audit quality (PCAOB, 2013). Where engagement team members can make sound audit decisions regarding specific tests executed and appropriately assess the

evidence from these tests, the quality of the audit is enhanced (Francis, 2011). Audit processes are also strengthened if the operational inputs are of a good quality (Francis, 2011).

Basic processes, such as consistently exercising professional scepticism and ensuring auditor independence, are fundamental in supporting other audit quality processes. These include specific control activities, information and communication systems and risk assessment and responses (PCAOB, 2013). The audit firm's leadership, or tone at the top, and its commitment to emphasising the importance of audit quality, evaluating and rewarding high-quality engagement performance and establishing the appropriate structures to support audit quality are quintessential to promoting audit quality (PCAOB, 2013).

The issue of audit quality has become particularly relevant in the aftermath of recent corporate scandals[6] (De Beer & King, 2018; Maroun, 2014; PCAOB, 2013). Information about deficient audit quality usually comes to light in the context of a subsequent business failure (PCAOB, 2013). Subsequent to Enron's bankruptcy in 2001, and the following collapse of Arthur Anderson in 2002, it became fashionable to criticize the audit profession as a whole and to question the quality of audits performed - especially by Big 4 audit firms (Francis, 2004). Namibia is undoubtedly not isolated from the effects of these corporate scandals because of the presence of global audit firms in the country (Dikuua et al., 2018).

Regulators in various jurisdictions have introduced measures such as mandatory audit firm rotation[7], in an attempt to strengthen the independence of auditors (Harber, 2018). Despite the fact that this measure has been met with strong objection, mandatory audit firm rotation is to be effective in South Africa for financial years commencing on or after 1 April 2023 (IRBA, 2018). Deloitte's response to this mandatory audit firm rotation legislation was as follows:

> 'The Deloitte position is to support any measure to enhance auditor independence, audit quality and the transformation of the audit profession. We question whether mandatory audit firm rotation is the best mechanism to achieve any of these objectives (Deloitte SA, 2018).'

Research has found that the presence of a rotation plan strengthens the perception that the auditor is independent but does not necessarily enhance audit quality (Daniels & Booker, 2011) and that the regulatory environment within which an auditor operates has an impact on the auditor's behaviour, as well as the standard of care which an auditor applies (Francis,

[6] Examples of recent corporate scandals include Steinhoff International, African Bank, VBS Mutual Bank and SME Bank (Namibia).
[7] Mandatory audit firm rotation has not been introduced in Namibia.

2004). McMillan (2004) believes that, unless the character of the attest function is addressed explicitly through the development of the ideals of trust, the pragmatic solutions of the various regulatory bodies, introduced as additional regulatory measures, will fall short.

2.1 Namibian regulatory measures

As mentioned in Section 1.1, the PAAB is charged with the legal responsibility of monitoring and maintaining the quality of services provided by Registered Auditors (IFAC, 2016). The PAAB was established by the Public Accountants' and Auditors' Act of 1951, which was amended in 1990. Subsequently, the PAAB has embarked on a project to revise the 1951 Act. A draft bill was distributed for comments in 2016 to members of the profession (PAAB, 2016). The ICAN also plays an integral role in preserving a high standard of professional conduct (IFAC, 2016) and, as a result, the professional body imposes specific regulatory measures. The mandatory monitoring of continuing professional development (CPD) falls under the ambit of the ICAN (ICAN, 2018). External regulatory measures which are applicable in the Namibian audit environment are summarised below. They are labelled R1 to R8 and included as row headings in a correspondence table (Table 1).

Training

The PAAB administers training regulations pertaining to the training of trainee accountants, registration of training officers and administration of training contracts (PAAB, 2017). Training regulations include, among others, administrative issues, core experience, assessment and disciplinary processes. Salient features of the training regulations include the selection of people with high intellectual ability, an increased focus on professional values, ethics and business acumen and a balance of compulsory, elective and residual skills (PAAB, 2017). Refer to Figure 2 below.

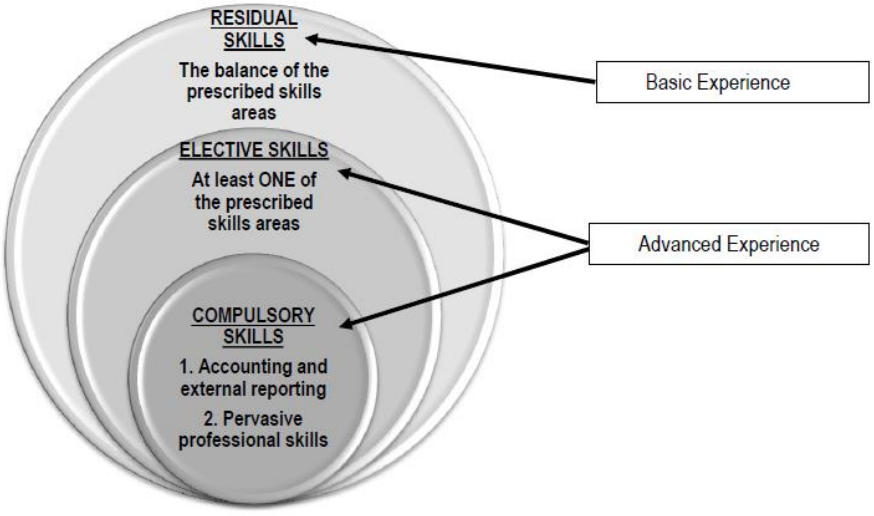


Figure 2: Structure of the PAAB's training programme (PAAB, 2017, p. 21)

The content of the PAAB's training programme covers accounting and external reporting, as well as, pervasive skills such as professional conduct, management and leadership, personal attributes and information technology, which are compulsory for all competencies (PAAB, 2017). In addition to these compulsory competencies, training offices must select at least one of the following skills areas as an elective, and must cover all the other skills areas as electives:

- Auditing and Assurance;
- Financial Management;
- Management Decision-Making;
- Taxation and
- Risk Management and Governance (PAAB, 2017, p. 20)

In the context of the PAAB's training programme, training includes workplace-based activities for the development of the trainee's competence and may be undertaken while performing actual tasks, i.e. on-the-job training, or indirectly through instruction or workplace simulation, i.e. off-the-job training (PAAB, 2017). Practice reviews are then conducted in conjunction with the PAAB training regulations. With these points in mind, the following regulatory measures designed to drive better quality audits are identified:

- **R1:** The registration and administration of training officers and contracts, respectively, are performed by the PAAB.
- **R2:** Training offices are re-accredited on a regular basis to ensure that educational programmes are enforced by practical experience and training through integrated application of knowledge, skills and professional values.
- **R3:** Quality Assurance Reviews are performed on engagement partners' audit files by the PAAB on a regular basis and this process is overseen by the PAAB Quality Assurance Committee.

The Audit Development Programme (ADP), introduced by the PAAB in 2017, is a period of specialisation undertaken by professional accountants who wish to become Registered Auditors and Accountants (RAA) in Namibia (PAAB, 2017). The ADP provides a context in which the consolidated capabilities developed in the training programme can be refined in a more complex learning environment (PAAB, 2017). Candidates are expected to perform at a level which is more advanced than that undertaken in their training contract.

Candidates registered for the ADP are referred to as Registered Candidate Auditors (RCA). The ADP gives the RCA an opportunity to gain exposure to a broad range of complex matters

faced by an RAA in practice and helps to develop professional competence and judgement, ethical values as well as lifelong learning skills and attitudes (PAAB, 2015). The candidates are exposed to tasks which, over time, increase in complexity and allow candidates to take on more responsibility for the aspects of an audit engagement which present a greater risk to the firm, the clients and other stakeholders (PAAB, 2015). Once the ADP is completed and the candidate has demonstrated the required competencies, it is expected that the newly registered RAA will continue with this process of refinement of their auditing skills and ability to manage an audit engagement effectively, as the RAA takes on new responsibilities and maintains a high level of capabilities (PAAB, 2015).

- **R4:** Effective February 2015, auditors are required to complete a mandatory 18-month Audit Development Programme to be registered by the PAAB as a Registered Auditor.
- **R5:** Every ADP candidate is required to complete a portfolio of evidence, by which certain competencies have to be demonstrated and which is evaluated by the PAAB Audit Development Committee.

Continuing development of professional knowledge and skill has distinct benefits for the individual professional accountant in maintaining a high level of technical competence, developing new areas of expertise and increasing career options, job satisfaction and client satisfaction (ICAN, 2018). CPD learning takes place in the form of either a structured or unstructured model (ICAN, 2018). Structured learning includes courses presented by educational institutions, member bodies or employers, individual study programmes, participation in conferences, briefing sessions or discussion groups and service as a member of a technical committee of a professional body or firm (ICAN, 2018). CAs can also keep abreast of current developments affecting clients and the profession in general, and this can be done with unstructured learning (ICAN, 2018). Examples of unstructured learning include reading professional journals, financial and business press, discussing current developments with peers and accessing relevant databases on the internet (ICAN, 2018).

In Namibia, the monitoring of CPD, in line with IFAC requirements of *inter alia* lifelong learning and access to mandatory CPD to all professional accountants (ICAN, 2018), is enforced by the ICAN.

- **R6:** Holders of the Chartered Accountant (Namibia) (CA (NAM)) designation and essentially Registered Accountants and Auditors, are required to demonstrate continued development of professional knowledge and skill which is monitored by the ICAN.

- **R7:** Members who do not meet the CPD requirements have to provide an achievable plan of remedial action to the ICAN Secretariat. Failure to provide a plan of remedial action or failure to carry out the plan provided to the ICAN Secretariat can result in the ultimate revoking of the CA (Nam) designation.

Peer review and inspection

Peer reviews, together with mandatory inspections, were introduced as a means to re-establish the trust in the audit function by ensuring increased audit quality (Lohlein, 2016). There are opposing views on whether or not external quality control contributes positively to the improvement of audit quality. In the six years of inspections conducted by the PCAOB, which were underway in 2012, it remained unclear whether the inspection process, in fact, benefitted audit quality (Church & Shefchik, 2012). While some research has shown a positive correlation, other has indicated that external users do not regard peer reviews as useful for decision-making purposes (Lohlein, 2016).

In the United States of America, international audit firms are subject to the rules and regulations of the Public Company Accounting Oversight Board (PCAOB) which includes rules relating to audit firm inspections (Bishop, Hermanson, & Houston, 2012). When the PCAOB was established in 2002 to oversee the audit firms of publicly traded entities, the traditional self-regulatory system of the accounting profession in the United States came to an end (Lohlein, 2016). PCAOB inspections include the review of selected audit work performed by the audit firm and reviews of other matters related to the firm's quality control procedures and systems (Bishop et al., 2012) which is meant to improve audit quality (Church & Shefchik, 2012)

In Namibia, the PAAB is responsible for conducting practice reviews (currently outsourced [8]) with the intention of building local capacity. These reviews are focused on technical, as well as ethical issues. In addition, one of the PAAB's vital mandates is to investigate, through the PAAB Investigations Committee, any allegations of improper conduct which are reported (PAAB, 2008).

- **R8:** Allegations of improper conduct are investigated, in accordance with the PAAB Disciplinary Rules and the IFAC Code of Ethics for Professional Accountants, by the PAAB Investigations Committee.

[8] The name of the South African based company contracted to perform these reviews could not be provided by the PAAB because of confidentiality reasons.

2.2 ISQC 1 elements of audit quality

Over the years, many organisations have attempted to define audit quality, with little consensus reached (PCAOB, 2013). 'Audit quality is much debated, but little understood' (Knechel et al., 2013, p. 385). Some researchers argue that the size of the audit firm is an indicator of the quality of the audit engagement (DeAngelo, 1981). Others are of the opinion that the discretionary accruals (Francis & Wilson, 1988) and the frequency of litigation (Palmrose, 1997) may also be determinants of audit quality. Auditors conducting an audit may define high audit quality as satisfactorily completing all audit procedures required in line with the audit firm's audit methodology (Knechel et al., 2013) and International Standards on Auditing (IAASB, 2009).

For the purpose of this research, the 'elements' of audit quality per ISQC 1 are used as column headings in a correspondence analysis. Each is discussed briefly below.

Firm leadership and a culture of quality

The leadership of any firm is responsible for promoting an internal culture of quality (IAASB, 2009). The International Ethics Standards Board for Accountants iterates that the leadership of a firm should promote compliance with the fundamental principles, as outlined in the International Code of Ethics for Professional Accountants. It also sets out the expectation that engagement team members will act in the public interest and emphasizes the importance of ethical behaviour (IESBA, 2018).

A quality-oriented internal culture emphasises the need to have policies and procedures in place to meet the requirement to perform work which complies with the relevant professional standards and issue appropriate reports (IAASB, 2009).

- **Q1:** Establishing policies and procedures promoting a culture of quality driven by firm leaders and strengthened by enhanced supervision.

Independence

Auditor independence is a key indicator of audit quality (PCAOB, 2013). This sentiment is echoed by the International Auditing and Assurance Standards Board (IAASB) which identifies independence as a core requirement for ensuring high ethical standards and effective firm leadership (IAASB, 2009). King-IV endorses this view with one of the core objectives of the code being the promotion of corporate governance, including a culture of

ethics and independence, as integral to running an organisation and delivering desirable outcomes (Institute of Directors in Southern Africa, 2016). Researchers further argue that an auditor who has an economic interest in his/her client and, as a result, lacks the fundamental quality of independence, will be less likely to report any irregularities and, in turn, this reduces audit quality (Daniels & Booker, 2011).

Independence comes in two forms: 'in mind' and 'in appearance' (IESBA, 2018). The former is

> 'the state of mind that permits the expression of a conclusion without being affected by influences that compromise professional judgement, thereby allowing an individual to act with integrity, and exercise objectivity and professional scepticism' (IESBA, 2018, pp. 118-119) .

Independence in appearance is concerned with

> 'the avoidance of facts and circumstances that are so significant that a reasonable and informed third party would be likely to conclude that a firm's, or an audit team member's, integrity, objectivity or professional scepticism has been compromised' (IESBA, 2018, p. 119).

The users of financial statements rely on auditors to provide an unbiased audit opinion and, as a result, the perception of independence is critical (Daniels & Booker, 2011). Auditor independence contributes to achieving trust in the audit profession (Power, 2003). Regulators have introduced measures, *inter alia* mandatory audit firm rotation, in an attempt to strengthen the independence of auditors (Harber, 2018).

Regulators in the United States of America recommended that auditors include 'forensic-type' procedures in their standard audit procedures in an effort to increase detecting material financial statement fraud (Holm & Zaman, 2012). A review of the audit methodologies, guidance and training material with peer reviewers of the material and their implementation was also encouraged by the same regulator (Holm & Zaman, 2012). The European Commission's Green Paper presented possible regulatory reform in terms of the provision of non-audit services, joint audits, new governance requirements for audit firms and enhanced public supervision (Humphrey et al., 2011). In the United Kingdom, the UK Professional Oversight Board suggested the extension of public reporting on Audit Inspection Unit findings (Holm & Zaman, 2012).

In South Africa specifically, mandatory audit firm rotation has been introduced by the IRBA and is effective for financial years commencing on or after 1 April 2023 (IRBA, 2018). Prior to this regulation in December 2014, the IRBA introduced a mandatory requirement that all auditor's reports in the annual financial statements should disclose the number of years which the audit firm or sole practitioner was the auditor of the entity (IRBA, 2015). Audit tenure refers to the length of the relationship between the client and the auditor and was introduced to strengthen auditor independence and will encourage transparency of association between audit firms and their clients (IRBA, 2015). In Namibia, regulation relating to auditor independence is yet to be introduced and is still under discussion at the PAAB and the ICAN.

The following statements have, therefore, been included in the correspondence table:

- **Q2:** Maintaining independence of mind and appearance, where obliged by relevant ethical requirements.

Client acceptance and continuance procedures

Audit firms are required to adopt client and engagement acceptance procedures to ensure compliance with the fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional (IESBA, 2018). Client acceptance procedures have also been used in prior research as an output measure of audit quality (Francis, 2011). Based on the importance of client acceptance and continuance procedures, the following statement has been included in the correspondence table:

- **Q3:** Ensuring ethical compliance, including client acceptance and continuance procedures.

Competence of engagement team members

Under ISQC 1, audit firms are required to establish policies and procedures designed to provide the audit firm with reasonable assurance that it has sufficient personnel with the required competence, capabilities and commitment to ethical principles (IAASB, 2009). This notion of competence is further supported in terms of corporate governance which states that effective leadership is exemplified by competence (Institute of Directors in Southern Africa, 2016). Professional competence and due care, evidenced by attaining and maintaining professional knowledge and skill at the level required to ensure professional service, are fundamental principles which each engagement team member must demonstrate (IESBA, 2018).

- **Q4:** Awareness of the importance of sufficient engagement team members with the required competence and capability to apply and comply with ISA.

Consultation

Consultation in the form of second partner and other specialist reviews, bearing in mind that the engagement partner retains the ultimate responsibility of signing the audit opinion, is considered a positive layer to a statutory audit (Barac et al., 2016). The 'collective experience and technical expertise of the firm' at the appropriate level on complex or controversial and ethical issues are considered to strengthen the overall audit process and firm culture (IAASB, 2009, pp. 26-27).

- **Q5:** Ensuring that appropriate consultation on complex audit matters takes place, that differences in opinion are resolved and that consultation conclusions are implemented.

Review and monitoring process

Alongside independence and competence requirements, effective monitoring, supervision and consultation are critical, especially for difficult or contentious issues (IAASB, 2009). Similarly, ISQC 1 emphasises the importance of continuous improvement, internal quality control and sound documentation standards (IAASB, 2009) which are essential in reaching an appropriate audit opinion.

- **Q6:** Appointing engagement quality control reviewers to enhance the overall quality of the engagement.
- **Q7:** Ensuring that quality engagement files are completed on a timely basis and that all aspects of the engagement have been thoroughly documented.
- **Q8:** Ensuring that a firm establishes a monitoring process of its internal quality control policies and procedures which drive continuous improvement.

CHAPTER 3. DATA AND METHOD

A mixed method approach grounded in an interpretive epistemology was employed in this study. The opinions of audit experts on the effect which external regulations have on audit quality are explored, using a correspondence analysis, instead of testing whether a causal relationship exists between the two 'variables' (Maroun, 2014). The use of a correspondence analysis is appropriate in this study because the research is exploratory in nature and this technique has become increasingly popular in exploratory research (Kudlats, Money, & Hair Jr., 2014). Correspondence analysis is regarded as a useful technique which has been used in various contexts to highlight correlations between identified characteristics (Garnett, Maroun, & Ram, 2016). See section 3.2 for various fields of expertise where correspondence analysis has previously been used.

It is important to note that the aim of this study is not to quantify a measure of audit quality but to gain an understanding of the association between external regulation and audit quality (Maroun, 2014). Data were collected in the following two phases:

- Phase 1 used correspondence analysis to aggregate and summarise the perceptions of audit experts in Namibia. The researcher engaged 73 potential participants for this purpose, of which 42 participants responded.
- Phase 2 used the correspondence plot as a basis for semi-structured interviews with 5 audit experts[9] to further explore the association between external regulation and audit quality and enhance the interpretation of results from the correspondence analysis.

3.1 Population and sample

The researcher chose to select audit experts as participants in this study. This selection represents purposive sampling (Leedy & Ormrod, 2014) which is appropriate for maintaining a high level of reliability. Purposeful selection, using a small sample size, enhances the quality of the research findings (Maroun, Turner, & Sartorius, 2011) by ensuring that only participants with extensive audit experience and who are knowledgeable on ISQC 1 and Namibian regulatory measures are engaged.

[9] The researcher performed 5 interviews and achieved saturation. Due to the fact that the interviews are used to complement a correspondence analysis (completed by an 42 respondents) a smaller number of interviews is sufficient.

The aim of the study is not to generalise results which is consistent with other exploratory studies (Ram, 2018). A sample size of 73 audit experts was selected for the correspondence analysis, of which 42 audit experts responded, representing a 58 percent response rate. In addition, 5 interviews were conducted in an effort to interpret the results (Rowley, 2012).

This small sample size is consistent with sample sizes used in similar prior literature (Kudlats, Money, & Hair, 2014; Maroun, 2014; Ram, 2018). For the correspondence analysis, there is a direct relationship between the sample size and the number of row and column headings. Studies with comparable correspondence tables (in terms of the number of row and column points) rely on samples consistent with those proposed by this study (Garnett et al., 2016; Kudlats, Money, & Hair, 2014; Ram, 2018).

Most qualitative research relies on 10 – 12 interviews (Rowley, 2012). As the interviews are used to complement the correspondence analysis, a smaller sample of 5 - 8 respondents were planned for. The final sample was driven by the need to achieve saturation of findings (ibid). The population from which the interviewees were selected includes all Namibian practicing audit partners registered with the PAAB and ICAN who have at least 10 years' experience in the audit profession. A sample of 5 – 8 interviewees were selected from this population making use of the purposive sampling method, as described above. The selection was made using the researcher's existing networks to contact potential interviewees via e-mail, inviting them to participate in the interview process.

3.2 Correspondence analysis

Correspondence analysis is an exploratory method enabling researchers to analyse data and develop a perceptual map aiming to improve the interpretation and communication of their findings (Kudlats, Money, & Hair Jr., 2014). This method has been applied by Social Science researchers (Kudlats, Money, & Hair Jr., 2014) and in Psychology (Doey & Kurta, 2011). The purpose of using a correspondence analysis is to explore the relationship between the ISQC 1 elements of audit quality and external regulatory measures. Key external regulations constitute column headings, while ISQC 1 audit quality elements constitute row headings. The columns are labelled 'R1' to 'R8' and the rows are labelled 'Q1' to 'Q8[10]' as explained in Section 2.

The result is an 8-column x 8-row correspondence table which was circulated among audit experts, comprising audit experts. The fact that solely audit experts were used in this study

[10] The categorisation of regulatory and quality elements as either rows or columns has no bearing on the results.

presents an element of bias. On the other hand, it ensures that only knowledgeable individuals are engaged which, in turn, adds to the internal validity of the findings (Maroun, 2014). Surveying both the setters of regulation and those subjected to those regulations mitigates possible bias in the study. This approach is in line with the exploratory nature of this study and the fact that the aim is not to generalise the findings (Ram, 2018). The study is also focused on the impact of audit regulation on audit practice, rather than on how external parties perceive audit quality to change because of the use of external regulation (Maroun, 2014). In order to ascertain the validity and suitability of the correspondence table, a pilot study was undertaken among the lecturers at the Namibia University of Science and Technology, Namibia.

The correspondence table below, together with instructions, was distributed to relevant lecturers in the Accounting, Economics and Finance Department of the Faculty of Management Sciences. The researcher discussed the tool with each lecturer individually, when questions regarding the completion of the tool arose. The lecturers completed the correspondence table and returned it to the researcher via e-mail. No problems with the correspondence table were identified through this pilot. Minor amendments were made to the instructions to provide better guidance and clarity on how the tool was to be completed. Refer to Table A2 in the Appendix for an extract of the instructions distributed to the participants.

	Namibian regulatory measures							
Quality trait as per ISQC1	R1: The registration and administration of training officers and training contracts, respectively, are performed by the PAAB.	R2: Training offices are re-accredited on a regular basis to ensure that educational programmes are enforced by quality in practical experience and training through integrated application of knowledge, skills and professional values.	R3: Quality Assurance Reviews are performed on engagement partners' audit files by the PAAB on a regular basis and this process is overseen by the PAAB Quality Assurance Committee.	R4: Auditors are required to complete a mandatory 18-month Audit Development Programme to be registered by the PAAB as a Registered Auditor.	R5: Every ADP candidate is required to complete a portfolio of evidence, within which certain competencies have to be demonstrated and which is evaluated by the PAAB Audit Development Committee.	R6: Allegations of improper conduct are investigated, in accordance with the PAAB Disciplinary Rules and the IFAC Code of Ethics for Professional Accountants, by the PAAB Investigations Committee.	R7: Holders of the CA (NAM) designation, and essentially Registered Accountants and Auditors, are required to demonstrate continued development of professional knowledge and skill, which is monitored by the ICAN.	R8: Members who do not meet the CPD requirements have to provide an achievable plan of remedial action to the ICAN Secretariat. Failure to provide a plan of remedial action or failure to carry out the plan provided to the ICAN Secretariat could result in the ultimate revoking of the CA (Nam) designation.
Q1: Establishing policies and procedures promoting a culture of quality driven by firm leaders and strengthened by enhanced supervision.								
Q2: Maintaining independence of mind and appearance, where required by relevant ethical requirements.								
Q3: Ensuring ethical compliance, including client acceptance and continuance procedures.								
Q4: Awareness of the importance of sufficient engagement team members with the required competence and capability to apply and comply with ISA.								
Q5: Ensuring that appropriate consultation on complex audit matters takes place, that differences in opinion are resolved and that consultation conclusions are implemented.								
Q6: Appointment of engagement quality control reviewers to enhance the overall quality of the engagement.								
Q7: Ensuring that quality engagement files are completed on a timely basis and that all aspects of the engagement have been thoroughly documented.								
Q8: Ensuring that a firm establishes a monitoring process of its internal quality control policies and procedures which drives driving continuous improvement.								

Table 1: Correspondence table

Data collection

In order to develop the correspondence table, the researcher engaged directly with the Namibian regulators of the audit profession, the ICAN and the PAAB. Both these professional bodies provided the researcher with the regulatory measures enforced by each of them. The quality traits in this context were quoted from ISQC 1. Participants, with the assistance of the PAAB and ICAN, are informed of the purpose and nature of the research. The two professional bodies distributed the correspondence table to their members together with an explanation of the method employed and instructions (Table A2 in the Appendix) on how to complete the correspondence table (Table 1). For the purpose of this study, the researcher requested that the correspondence table and instructions be distributed to all audit partners. The participants were asked to mark an 'X' in cells where the ISQC 1 audit quality elements (rows) correspond positively with the respective external regulation (columns). As a result, each cell either contains an 'X' or is left blank, depending on the opinion of the participant. Each 'X' response was assigned a value of one. Each blank cell or non-response was assigned a value of zero.

Data analysis

The results of the correspondence tables were aggregated and a statistical programme (STATA) was used to generate the descriptive statistics and a row and column correlation matrix (Kudlats, Money, & Hair, 2014). The results were accumulated into a single frequency table and a two-variable scatterplot (Bendixen, 1996). Column headings (quality indicators) were used to label the axes in the final correspondence plot. Regulatory measures were then positioned based on their size, correlation with the axes and inertial contribution. This is explained in more detail below (see Figure 3). This scatterplot provides an initial correspondence between the quality traits and regulatory measures.

A methodical sequence of steps as described by Kudlats, Money, and Hair (2014) was applied. Step one was to determine the strength of associations between ISQC 1 quality traits and regulatory measures. This was measured through the inertial contribution which each point makes to the total inertia of the model. Inertia is described as the key measure of association within the plot (Ram, 2018) which is developed to position each of the regulatory measures with respect to the four categories of quality traits.

Step two involved determining a suitable number of dimensions. In general, two dimensions on the correspondence plot are acceptable because of the complexity in analysing plots with three or more dimensions (Ram, 2018). A vital factor to take into account when considering

whether to use two or more dimensions is the contribution that the axes in the correspondence plot to the total inertia. Where a two-dimensional solution accounts for a significant part of the total inertia of the model, the two dimensions are considered appropriate (Bendixen, 1996).

Step three of the sequence required the interpretation of the dimensional representation (Ram, 2018). The researcher determined, based on the descriptive statistics, which quality traits (row headings) and regulatory measures (column headings) are statistically significant and to be displayed on the correspondence plot. The total inertia of the model was allocated independently but equally to each quality trait and regulatory measure by dividing the total inertia of 100 percent by the number of points. Where the inertial contribution of a quality trait or regulatory measure exceeded the average inertia per trait and measure, they are considered statistically significant (Kudlats, Money, & Hair, 2014; Ram, 2018).

Each dimension was then assigned a dimensional reference and the researcher placed each significant trait and measure on the plot based on the co-ordinates of each point. The sign of the co-ordinate (positive or negative) provided the necessary evidence for whether a significant regulatory measure was to be placed on the positive or negative side of the relevant *x*- or *y*-axis. For each placement, the grouping of significant traits was analysed for interconnections and based on these findings, the researcher named each of the four-axis placements.

Rows which had comparable patterns or counts had points which are close together on the scatterplot and columns which had comparable patterns of counts had points which are close together on the scatterplot (Doey & Kurta, 2011). The row and column points were then shown on the same graphical display to allow for easy visualisation of the associations (Doey & Kurta, 2011) among regulatory measures and elements of audit quality. A Chi-square statistic was used to measure the distance between points on the scatterplot and, in turn, measure the association among variables (Bendixen, 1996; Doey & Kurta, 2011).

Finally, the researcher evaluated the relationship between the two dimensions. The initial analysis of the association between ISQC 1 quality traits (Q's) and regulatory measures (R's) and presented, analysed and discussed in Chapter 4. It is important to note that correspondence analysis is a non-parametric tool and there is no theoretical distribution to which the observed distances can be compared (Doey & Kurta, 2011). A total of 42 participants completed the correspondence analysis tool and the researcher conducted semi-structured interviews with 5 audit experts.

3.3 Interviews

To corroborate and aid further analysis of the results from the correspondence tables, a limited number of semi-structured interviews were conducted with the respondents. An interview generally involves face-to-face exchanges in which the interviewer wishes to acquire information and/or gain an understanding from the interviewee (Rowley, 2012). The most common type of interview is a semi-structured interview, which centres around a few well-phrased questions with some flexibility in the questions (Rowley, 2012). The interviews were semi-structured and flexible, meaning that the researcher was able to raise new questions throughout the course of the interview, based on the interviewee's responses (Kudlats, Money, & Hair Jr., 2014). With these semi-structured interviews, the researcher aimed to explore any unexpected associations between external regulation and elements of audit quality which may come to light. The approach used by Maroun (2014) was applied.

The correspondence analysis technique was explained to the interviewees at the beginning of the interviews. Any misunderstandings or misinterpretations were resolved verbally after which the correspondence plot was provided. The interviewees were then given the opportunity to interpret the plot and provide their views on the relevance of Namibian regulation to enhance audit quality. Where it was deemed necessary, respondents were asked to explain certain concepts in their own words or to provide different perspectives of the evidence before them (Alvesson, 2003). A total of 5 interviews were conducted which the researcher concluded to be satisfactory as saturation was reached. Participants with at least 10 years' experience in the audit profession were selected for the interviews. Their views were reflected on to complement the initial analysis of the correspondence plot.

In order to generate findings and organise the responses, the responses were grouped according to the four axes (positive and negative *x*- and *y*-axes) identified in the first phase of data collection defined in Section 4.1. Using these pre-defined parameters did not detract from the exploratory nature of the research and allowed for the methodical analysis of the responses (Maroun & Atkins, 2014). The intention of the semi-structured interviews was not to obtain consensus amongst respondents.

At the start of the interviews, the participants were reminded of the nature and purpose of the research and the fact that there are no correct or incorrect answers, was reiterated. The researcher provided the participant with the correspondence plot (Figure 3) and an explanation of the correspondence analysis technique. The interviews were semi-formal and participants were encouraged to share their views freely. Pilot interviews were not conducted, as the

interviews were based on findings from phase 1 of the study. Details of the interviewees are provided in Table 2 below.

Participant code	Experience (Number of years)	Role at the organisation	Size of audit firm	Length of interview[11]
P1	22 years	Audit partner	Big 4	1 hour, 15 minutes
P2	13 years	Audit partner	Small	1 hour
P3	15 years	Audit partner	Medium	n/a – email
P4	10 years	Audit partner	Small	n/a – email
P5	17 years	Audit partner	Big 4	1 hour

Table 2: Details of interviewees

Interviewees' responses were coded on a line-by-line basis by first allocating them to the respective initial correspondence analysis regulatory measures and quality traits. The responses were then categorised into those supporting and those opposing the correspondence plot results. The interviewee responses was reflected on to help understand why they either supported or opposed a correspondence finding and generate the final results.

3.4 Validity and reliability

Only knowledgeable audit experts were selected as participants in the research and the semi-structured interviews were used to complement the researcher's analysis of the correspondence plot. This ensured a more detailed analysis process which added to the validity of the study (Creswell, 2014). While the purposive sampling method applied may introduce bias to the study, the inclusion of audit experts in the research enhanced reliability and is consistent with approaches applied in similar prior studies (Maroun, 2014). In this instance, purposive sampling enhanced the quality of the research findings as only knowledgeable participants are engaged (Creswell, 2014; Maroun et al., 2011).

To increase face validity (Leedy & Ormrod, 2014), the research supervisors were continuously consulted and the correspondence table was piloted with auditing academics at the Namibia University of Science and Technology. The instrument was piloted to ensure that there were no technical errors and that the participants were not unsure in of what was expected of them. No issues were identified with the correspondence table. Minor changes were made to the

[11] Because the remoteness of the researcher during the time in which the interviews had to be conducted, the interviews were conducted either through Skype or e-mails.

instructions sent to the participants with the correspondence table to ensure that there were no ambiguities (see Table A2 in the Appendix).

Reliability was strengthened by the fact that the mixed method adopted in the study allowed the researcher to triangulate the findings from the literature, the correspondence matrix and the semi-structured interviews. The coding which was developed in the correspondence analysis tool is grounded in prior literature, also limiting subjectivity and ensuring thorough and consistent analysis of the responses. A Chi-squared test was used to evaluate the strength of the association between rows and columns and to test the null hypothesis that audit quality and regulation in Namibia are independent. The results indicated significant dependencies (x^2=232.285, p<1%) between rows and columns in the correspondence matrix. The null hypothesis is, therefore, rejected. This supports the overall assertion that features of Namibia's regulatory environment are associated with respondents' perceptions of audit quality. The total inertia explained by the two-dimensional plot is 72.2%. The model accounts for most of the variances in responses and provides a sufficiently detailed account of the association between audit regulation and quality in Namibia and this increases validity and reliability of the study. The model's inertial contribution is consistent with that reported by Ram (2018), Kudlats, Money and Hair (2014) and Maroun (2014). To further strengthen reliability and validity, a three-dimensional correspondence analysis was run. The results of the three-dimensional analysis were very similar to that of the two-dimensional analysis. This further increased the validity of the two-dimensional analysis.

Finally, the researcher was responsible for developing the final correspondence table by obtaining the Namibian regulatory measures directly from the PAAB and the ICAN. Quality traits were taken directly from ISQC 1. The resulting correspondence table was then reviewed by the supervisors. Although this approach presented a level of judgement and subjectivity which may threaten the validity of the research findings, it offered a fresh perspective on the regulatory environment in Namibia, an area lacking in prior research.

3.5 Limitations

The use of correspondence analysis presented certain limitations. Correspondence analysis is an exploratory and descriptive tool (Kudlats, Money, & Hair Jr., 2014) and can, therefore, not be used for hypothesis testing or providing a quantitative conclusion (Maroun, 2014). The validity and reliability of the research were interpreted in terms of providing a justified argument which allowed the reader to gain an insight into the information being analysed (Creswell, 2014). The generalisation of the results on the audit profession as a whole may be challenging as a result of distortion which may be caused by outliers (Kudlats, Money, & Hair Jr., 2014).

The study was, therefore, exploratory in nature and the aim was not to generalise the results or to present an ideal solution. Instead, the purpose of the correspondence plot, together with the semi-structured interviews, was to inform the conversation on the relevance of regulatory measures in Namibia and was grounded in prior literature on audit quality and regulatory measures currently in place in Namibia. Low response rates may be a limitation to this study. Involving the PAAB and ICAN in the distribution of the correspondence tables may encourage the participants to respond.

Despite these limitations, correspondence analysis was considered appropriate as it is a quantitative methodological tool which enabled the researcher to analyse coded qualitative data, improve the interpretation of the data and communicate the findings more effectively using a visual perceptual mapping approach (Kudlats, Money, & Hair Jr., 2014). This method was suited to exploratory research and mitigated the potential risk of more interpretive inspired research becoming cumbersome (Creswell, 2014; Maroun et al., 2011).

CHAPTER 4. RESULTS

The results of responses received were aggregated into a single frequency table and a two-variable scatter plot. This scatter plot provided an initial correlation between the rows and the columns. The degree of correspondence between the rows and the columns was then translated into a row and column 'mass', which was used to define the axes of a two dimensional space and the positioning of different point-row plots (Maroun, 2014). Table 3 summarises provides the preliminary descriptive statistics and the Chi-squared test results.

Statistic	**Value**
Active rows	8
Active columns	8
Number of observations	780
Pearson's x^2 (48)	232.285
Prob < x^2	0
Total inertia	0.298
Number of dimensions	2
Explained inertia (2 dimensions) (%)	72.2%

Table 3: Descriptive statistics for correspondence analysis

Table 3 shows that the first two dimensions, which are the *x*- and *y*-axes in the final correspondence plot, account for just over 72% of the total inertia and so contributed to most

part of the exploratory potential of the graphical plot. At 49 degrees of freedom, the Chi-square statistic of 232.285 was significant at the 1% level ($p<0.01$); in other words, was in excess of the critical value using a 99% confidence level. This indicator provided evidence that there are strong associations between the rows and the columns in the two-variable solution.

4.1 The correspondence plot

The below two-variable scatter plot below provided a preliminary view of the correspondence between the rows and columns in the correspondence table. Only regulatory measures (R's) and quality traits as per ISQC 1 (Q's) that make an above average inertial contribution were included in the analysis for ease of interpretation. There were eight regulatory measures and eight quality traits. Each was derived in Section 2.1 and 2.2 respectively. Therefore, statistically significant points were those with inertial contributions exceeding 12.5 percent (100 percent inertia divided by the 8 regulatory measures and 8 quality traits, respectively). The researcher chose to round this percentage down to the nearest whole number, 10 percent. All the statistically significant (10 percent and above) points have been included in the correspondence plot (Figure 3).

Each row-point's sign, correlation coefficient and Chi-square value were then used to position the row points on the positive or negative *x*- and *y*-axes (Bendixen, 1996; Kudlats, Money, & Hair, 2014; Maroun, 2014). It is important to note that the sign of each row point is not in itself indicative of whether an association is favourable or unfavourable but merely specifies the positioning of each row point on the positive or negative *x*- and *y*-axes, relative to different elements of ISQC 1 quality traits.

The following statistics were generated by STATA and provided the necessary guidance in selecting the significant quality traits to be loaded on the positive or negative *x*- and *y*-axes. Where a quality trait had an inertial contribution of more than 10%, it was regarded as significant and the cell is highlighted in Table 4 below. The table also indicates whether the quality trait should be placed on axis 1 (*x*-axis) or axis 2 (*y*-axis).

ISQC 1	Mass			Inertia	Contribution of Point to Inertia of Dimension	
					Axis 1	Axis 2
1	0.137	0.028	0.916	0.047	0.000	0.358
2	0.141	0.704	0.418	0.046	0.209	0.077
3	0.127	-0.202	-0.875	0.037	0.015	0.302
4	0.136	-1.207	0.034	0.072	0.593	0.000
5	0.078	0.686	-0.539	0.025	0.110	0.071
6	0.106	0.411	-0.378	0.034	0.054	0.047
7	0.103	0.148	-0.516	0.016	0.007	0.085
8	0.172	-0.151	0.333	0.020	0.012	0.059
Active Total	**1.000**			**0.298**	**1.000**	**1.000**

Table 4: Statistics for quality traits as per ISQC 1 in symmetric normalisation

Based on the above statistics, the following quality traits are regarded as significant:

- **Q1**: Establishing policies and procedures promoting a culture of quality driven by firm leaders and strengthened by enhanced supervision.
- **Q2**: Maintaining independence of mind and appearance, where required by relevant ethical requirements.
- **Q3**: Ensuring ethical compliance, including client acceptance and continuance procedures.
- **Q4**: Awareness of the importance of sufficient engagement team members with the required competence and capability to apply and comply with ISA.
- **Q5**: Ensuring that appropriate consultation on complex audit matters takes place and that differences in opinion are resolved and that consultation conclusions are implemented.

In the same way, the following statistics provided the necessary guidance in selecting the significant regulatory measures to be loaded on the positive or negative *x*- and *y*-axes. Where a regulatory measure had an inertial contribution of more than 10%, it was regarded as significant and the cell is highlighted in Table 5 below. The table also indicates whether the regulatory measure should be placed on axis 1 (*x*-axis) or axis 2 (*y*-axis).

Regulation	Mass			Inertia	Contribution of Point to Inertia of Dimension	
					Axis 1	Axis 2
1	0.059	-0.521	0.758	0.024	0.048	0.105
2	0.150	0.016	0.809	0.037	0.000	0.306
3	0.212	0.381	-0.602	0.052	0.092	0.239
4	0.132	-0.959	-0.400	0.051	0.364	0.066
5	0.136	-0.652	-0.315	0.034	0.173	0.042
6	0.131	0.839	-0.350	0.053	0.276	0.050
7	0.133	0.278	0.651	0.029	0.031	0.176
8	0.047	0.342	0.339	0.018	0.017	0.017
Active Total	**1.000**			**0.298**	**1.000**	**1.000**

Table 5: Statistics for regulatory measures in symmetric normalisation

Based on the above statistics, the following regulatory measures are regarded as significant:

- **R1**: The registration and administration of training officers and training contracts, respectively, are performed by the PAAB
- **R2**: Training offices are re-accredited on a regular basis to ensure that educational programmes are enforced by quality in practical experience and training through integrated application of knowledge, skills and professional values.
- **R3**: Quality Assurance Reviews are performed on engagement partners' audit files by the PAAB on a regular basis and this process is overseen by the PAAB Quality Assurance Committee.
- **R4**: Auditors are required to complete a mandatory 18-month Audit Development Programme to be registered by the PAAB as Registered Auditors.
- **R5**: Every ADP candidate is required to complete a portfolio of evidence, within which certain competencies have to be demonstrated and which is evaluated by the PAAB Audit Development Committee.
- **R6**: Allegations of improper conduct are investigated, in accordance with the PAAB Disciplinary Rules and the IFAC Code of Ethics for Professional Accountants, by the PAAB Investigations Committee.

- **R7**: Holders of the CA (NAM) designation, and primarily Registered Accountants and Auditors, are required to demonstrate continued development of professional knowledge and skill which is monitored by the ICAN.

Quality traits relating to the maintenance of independence of mind and appearance and consultation on complex audit matters, showed strong association on the positive *x*-axis, which the researcher named *Independence and consultation.* The importance of having sufficiently competent engagement team members on an audit team showed a significant association on the negative *x*-axis, hence the naming of the negative *x*-axis as *Engagement team competence.* The establishment of policies and procedure promoting a culture of quality, driven by the firm leadership, was placed on the *y*-axis in line with the statistics presented below. The *y*-axis was named *Culture of quality.* Finally, the statistics relating to client acceptance and continuance procedures to ensure ethical compliance indicated placement on the negative *y*-axis.

Table 6 shows the loading of the significant quality traits (developed interpretively by the researcher) onto the *x*- and *y*-axes in the correspondence plot.

Axis	**Significant ISQC 1 quality traits**	**Axis name**
Positive *x*-axis (Dimension 1)	**Q2**: Maintaining independence of mind and appearance where required by relevant ethical requirements. **Q5**: Ensuring that appropriate consultation on complex audit matters takes place, that differences in opinion are resolved and that consultation conclusions are implemented.	Independence and consultation
Negative *x*-axis (Dimension 1)	**Q4**: Awareness of the importance of sufficient engagement team members with the required competence and capability to apply and comply with ISA.	Engagement team competence
Positive *y*-axis (Dimension 2)	**Q1**: Establishing policies and procedures promoting a culture of quality driven by firm leaders and strengthened by enhanced supervision.	Culture of quality

Negative *y*-axis (Dimension 2)	**Q3**: Ensuring ethical compliance, including client acceptance and continuance procedures.	Client acceptance and continuance

Table 6: Relationship between axes and quality traits

Significant regulatory measures were loaded onto the positive and negative *x*- and *y*-axes, according to the statistics generated by STATA. Table 7 below shows how the regulatory measures were loaded onto the axes.

Axis	**Significant regulatory measures**	**Axis name**
Positive *x*-axis (Dimension 1)	**R6**: Allegations of improper conduct are investigated, in accordance with the PAAB Disciplinary Rules and the IFAC Code of Ethics for Professional Accountants, by the PAAB Investigations Committee.	Independence and consultation
Negative *x*-axis (Dimension 1)	**R4**: Auditors are required to complete a mandatory 18-month Audit Development Programme to be registered by the PAAB as a Registered Auditor. **R5**: Every ADP candidate is required to complete a portfolio of evidence, within which certain competencies have to be demonstrated and which is evaluated by the PAAB Audit Development Committee.	Engagement team competence
Positive *y*-axis (Dimension 2)	**R2**: Training offices are re-accredited on a regular basis to ensure that educational programmes are enforced by quality in practical experience and training through integrated application of knowledge, skills and professional values. **R3**: Quality Assurance Reviews are performed on engagement partners' audit files by the PAAB on a regular basis and this process is overseen by the PAAB Quality Assurance Committee. **R7**: Holders of the CA (NAM) designation, and essentially Registered Accountants and Auditors, are required to	Culture of quality

	demonstrate continued development of professional knowledge and skill which is monitored by the ICAN.	
Negative *y*-axis (Dimension 2)	**R1**: The registration and administration of training officers and training contracts, respectively, are performed by the PAAB.	Client acceptance and continuance

Table 7: Relationship between axes and regulatory measures

Based on the information and statistics presented above, Table 8 below summarises the labels of the positive and negative *x*- and *y*-axes. The naming of the labels was derived interpretively by the researcher.

Axis	Label
Positive *x*-axis (axis 1)	Independence and consultation
Negative *x*-axis (axis 1)	Engagement team competence
Positive *y*-axis (axis 2)	Culture of quality
Negative *y*-axis (axis 2)	Client acceptance and continuance

Table 8: Labelling of axes

4.2 Analysis of the final correspondence plot

The final correspondence plot is presented in Figure 3 below.

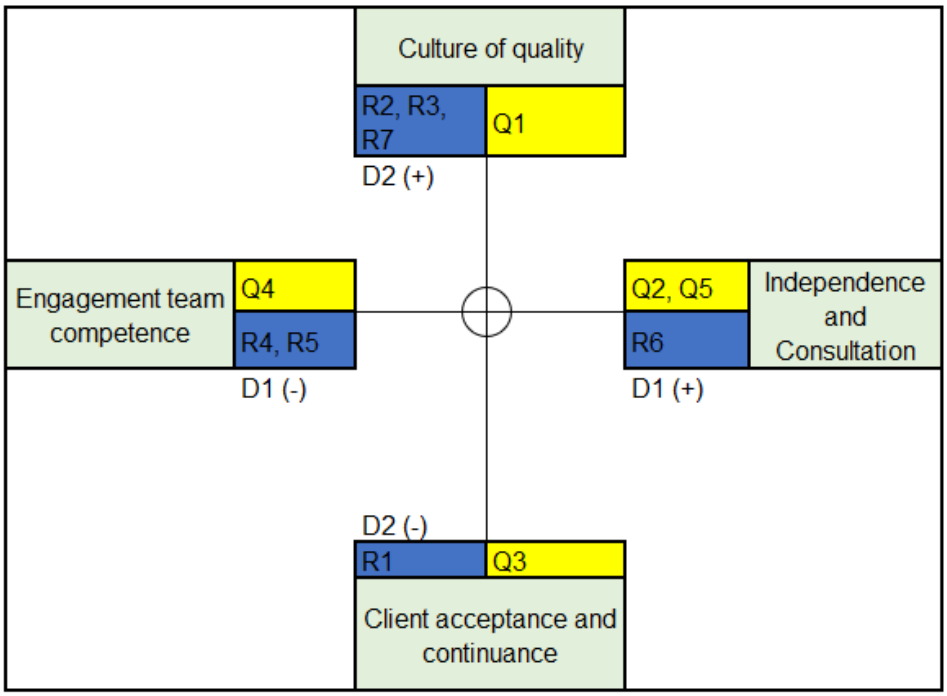


Figure 3: Correspondence plot[12]

[12] Column headings (regulatory measures) plotted on the *x*- and *y*-axes are shaded in blue. Row headings (ISQC 1 quality traits) also plotted on the *x*- and *y*-axes are shaded in yellow.

The initial results illustrated in the correspondence plot indicate that there is a strong correlation between the maintenance of independence (Q2), consultation on complex issues (Q5) and the regulatory measure enforcing the investigation of improper conduct. This result supports the view that consultation is considered a positive layer to a statutory audit (Barac et al., 2016). According to the biplot, the competence of engagement team members is ensured by the regulatory requirement for eligible candidates to register for the Audit Development Programme and to complete a portfolio of evidence in lieu of demonstrating the appropriate level of competence to be registered as an RAA in Namibia. This association supports the PAAB's view that the purpose of the ADP helps to develop professional competence and judgement (PAAB, 2015).

A culture of quality promoted by the firm leadership shows strong association with a number of regulatory measures, namely, the training office accreditation process, quality assurance reviews as well as the requirement for holders of the CA (NAM) designation to demonstrate continued development of professional knowledge and skill, which is monitored by the ICAN. This notion is supported by the view that firm leadership promotes an internal culture of quality (IAASB, 2009) and that mandatory inspections were introduced as a means to re-establish trust in the audit function by ensuring increased audit quality (Lohlein, 2016). Finally, the biplot revealed that the registration and administration of training officers and training contracts addresses ethical compliance in terms of client acceptance and continuance procedures. Refer to Figures B1 and B2 in the Appendix for a graphic illustration of the row points for ISQC 1 quality traits and column points for regulatory measures, respectively.

The researcher presented these initial results to audit experts for discussion and further analysis.

4.3 Views from audit experts

After the initial development and interpretation of the correspondence plot (Figure 3), this was used as the basis of further analysis and discussion on the relevance of the current Namibian regulatory measures with regards to audit quality. These discussions were held with five audit practitioners[13].

Interviewees generally found the correspondence analysis relatively easy to understand and agreed that the correspondence analysis technique was suitable. For ease of analysis,

[13] Because of the remoteness of the researcher during the time at which the interviews had to be conducted, the interviews were conducted either through Skype or e-mails.

discussion points are summarised according to the labels assigned to the x- and y-axis in the final correspondence plot.

Independence and consultation

Independence is regarded as a key indicator of audit quality (PCAOB, 2013). The PCAOB (2013, p.19) also suggests that the measurement of specialist hours as a percentage of the overall engagement hours is useful in understanding whether an audit firm encourages consultation with specialists to enhance audit quality. Power (2003) also argues that the independence of the auditor is critically important in achieving trust in the audit profession, while consultation can be considered a positive layer to a statutory audit (Barac et al., 2016). According to the correspondence plot (Figure 3), the row points relating to the maintenance of independence and consultation on complex audit matters have a strong association with the regulatory measure pertaining to the investigation by the PAAB Investigations Committee of alleged improper conduct, in accordance with the PAAB Disciplinary Rules and the IFAC Code of Ethics for Professional Accountants. Namibian audit experts took a similar view, as evidenced in the comments below.

> "Independence is the cornerstone of the audit profession. Without being independent, the audit practitioner cannot be unbiased and free from any conflict of interest. This has a massive impact on the quality of the audit that we deliver. Consultation also plays a critical role in the quality of the audit that we deliver. In fact, the firm's methodology requires that as a minimum, the engagement team must engage the risk advisory specialists within the firm to confirm whether or not their services are required to assess the client's systems, based on the size and complexity of the entity. The risk advisory specialists, if engaged to provide their services, must be involved in the audit throughout every stage of the audit from the pre-engagement and planning stages right up to the reporting stage. They are regarded as part of the engagement team" (P1).

The Namibian audit profession has historically been mostly self-regulated, with external regulation merely bolstering the self-regulatory measures already in place. In the bigger firms, consultation has even become a critical part of the audit methodology. Both independence and consultation have become an inherent part of audit methodologies, resulting mainly from the self-regulatory audit environment in Namibia. The added external regulation relating to the PAAB's investigations process does add an extra layer of regulation that, highlighting the importance of these two quality traits.

> "Being a smaller audit practice, we do not have the internal structures and resources to employ specialists. Also, our clients are normally small-to medium-sized. Therefore, in most cases we do not need specialists to be able to issue an audit opinion. Where we do require the services of a specialist, we source someone externally for that specific purpose" (P4).

It is clear from the responses that the size of the firm plays an important role in determining whether the firm has the necessary resources to employ internal specialists. As highlighted by DeAngelo (1981) the size of the audit firm is commonly used as an indicator of audit quality. The smaller firms usually do not require specialists' expertise, because of the smaller size and level of complexity of their clients. The smaller firms, however, recognise the importance of consultation and, while they may not have the expertise in-house, external consultants are engaged on a needs basis. This approach is supported by ISQC 1, which indicates that smaller firms can consult externally by making use of 'advisory services provided by other firms, professional or regulatory bodies or commercial organisations which provide the relevant services' (IAASB, 2009, p. 62).

> "No matter the size of the audit firm, independence in mind and in appearance is fundamental to the quality of the audit" (P2).

Independence is a key priority for audit firms of all sizes. The strong association between these two quality traits and the PAAB's investigations process suggests that in Namibia there is a strong motivation to comply with and apply these in order to ensure that the practitioners conduct themselves in a manner appropriate at all times and within the regulators' guidelines.

Engagement team competence

The awareness of the importance of sufficient engagement team members with the required competence and capability in compliance with ISA, has been highlighted as a key indicator of audit quality. As highlighted by the Institute of Directors in Southern Africa (2016), effective leadership is exemplified by competence. The correspondence plot (Figure 3) indicated that there is a strong correlation between the competence of engagement team members and the implementation of the Audit Development Programme (ADP). This result is, therefore, demonstrates the positive link between effective leadership and competence. This correlation is further supported by the PAAB's view that the ADP ultimately aims *inter alia* to develop the candidate's professional competence, judgement and ethical values (PAAB, 2015).

> "At first the ADP was not well understood and there was not sufficient buy-in from the manager body to register for the programme. However, since the regulator actively started promoting the programme, visiting audit practices to explain the need for the programme, the process and desired outcomes, there has been a definite increase in registrations" (P5).

The recently introduced ADP mirrors the development programme adopted by the IRBA in South Africa and was adjusted to meet the needs of the Namibian profession. While it took some time for the ADP to gain traction in the audit profession, the regulator has been active in promoting the programme at audit firms of all sizes and the number of registrations has increased.

> "I believe all audit firms, no matter the size of the firm, are committed to deliver a quality audit. We cannot do this without our people, and it is the leadership's responsibility to ensure that there is a tangible investment in the development of our staff. The ADP is a vehicle to achieve this for potential RAAs" (P3).

> "We have made it a policy to make it mandatory for all managers to register for the Audit Development Programme" (P1).

From the responses above, this programme is perceived as positively contributing to the competence of potential RAA's.

> "While I fully agree that the correlation between the competence of engagement team members and ADP. However, I would have expected that the training office accreditation of firms' educational programmes (R2) would also have a strong correlation with competent engagement team members. Our educational programmes are aimed more at developing our trainees and we strongly believe that competence should be developed from the first day the trainee steps into our firm" (P2).

The above respondent highlighted his/her audit firm's commitment to the development of the trainees, long before they come to point in their careers where they are eligible to register for the Audit Development Programme. The competence of any potential RAA rightly starts on the first day of traineeship which is not necessarily covered by the Audit Development Programme but starts by adopting a quality training programme.

This association supports the view that a critical factor which contributes to the legitimacy of the audit profession is technical expertise and competence (Power, 2003) and that an increased level of competence, expertise and proficiency in an engagement team positively affects audit quality (PCAOB, 2013). The strong association between Q4, R4 and R5 highlighted in the correspondence plot complemented this view and the responses of the participants further strengthened this association.

Culture of quality

The audit firm leadership or tone at the top plays a pivotal role in the emphasis of the culture of quality, as well as the importance of the quality work over financial considerations (PCAOB, 2013). This view is supported by the IAASB's stance on firm leadership and the fact that it should promote an internal culture of quality (IAASB, 2009).

> "The tone at the top drives a firm's culture and personnel management and is quintessential to promoting audit quality. It forms the pinnacle of an audit quality paradigm and is rooted in professional scepticism, objectivity and integrity; however, it also relies on the underlying processes and foundation of operational inputs for support." (PCAOB, 2013, p. 13)

The correspondence plot highlights a correlation between the establishment of policies and procedures promoting a culture of quality driven by firm leaders and strengthened by enhanced supervision (Q1), the re-accreditation of training offices to ensure the quality of educational programmes (R2), the quality assurance review process (R3) and the requirement on 'CA (Nam)' holders to demonstrate continued development of professional development (R7). This result is in line with ICAN's opinion that CPD plays an important role in ensuring that a high level of technical competence is maintained (ICAN, 2018).

> "Maintaining the required CPD hours most definitely contributes to the continuous development of the individual but also bolsters the overall professional skills of the firm and contributes to audit quality" (P5).

Maintaining the required CPD hours is perceived as a critical part of promoting a culture of quality. This association is strongly supported by respondent P5, as it is perceived to contribute positively to audit quality as a whole.

> "Any audit firm's leadership drives the entire culture of the firm. The tone at the top sets the tone of the entire organisation" (P4).

> "It was not easy to become a partner and rightly so. It reminds me of the saying 'with great power comes great responsibility'. And our responsibility to establish the appropriate structures, reporting lines, policies and procedures sets the tone of the whole firm" (P2).

The interconnection of the promotion of a culture quality by the firm leadership and the related regulatory measures, as indicated above, in conjunction with the responses received from the participants was not surprising. The regulatory measures mentioned above were perceived to contribute to the individual, the firm, as well as the audit profession in totality. Respondents all agreed that the right tone at the top is crucial to achieve and drive a culture of quality and, therefore, unanimously agreed with the associations between the quality and regulatory elements highlighted by the correspondence plot. The initial associations identified in the correspondence plot were therefore supported by the interviewed audit experts.

Client acceptance and continuance

The firm is responsible for ensuring that policies and procedures are established for the acceptance and continuance of client relationships and specific engagements (IAASB, 2009). Client acceptance procedures have also been used as an output measure of audit quality (Francis, 2011). The results yielded by the correspondence plot suggested that there is an association between client acceptance and continuance procedures (Q3) and the registration and administration of training officers and training contracts, respectively, performed by the PAAB (R1).

> "I don't really understand the correlation between client acceptance and continuance procedures and the registration and administration of training officers and training contracts" (P3).

Participants, in particular P3, stated that they were perplexed by this finding. The connection of client acceptance and continuance procedures and the registration and administration of training officers and training contracts was perceived as ambiguous.

> "Client acceptance and continuance procedures are a critical step in the audit process and the firm has set procedures which have to be followed to address this important step. I suppose the registration and administration of training officers and training contracts indirectly speaks to the quality of the individuals who are allowed to register with the PAAB, who then have to carry out these

procedures. In that sense, there may be a slight correlation, but not a very strong association as the correspondence plot is implying" (P1).

"There may be a correlation between the quality of people that are employed by the firm and registered as trainees by the PAAB and the fact these people are performing the client acceptance and continuance procedures" (P5).

While a slight association can be made between Q3 and R1, the respondents all echo the sentiment that the association is remote and not overwhelmingly convincing. In this case there is a disconnect between the initial findings from the correspondence plot and the perceptions of the audit experts. As correspondence analysis is an exploratory method, this type of disconnect is not unusual.

Correspondence analysis should not be interpreted as providing evidence of quantitatively measuring the effect of the current regulatory measures on audit quality (Maroun, 2014). Instead, this exploratory tool aggregates perceptions and suggests certain associations between elements. The results also do not imply that there is consensus between all respondents. It is clear from the responses that the size of the audit firm affects the opinions of the practitioners. Making use of specialists may be critical for the larger audits and part of the engagement teams in the Big 4 audit firms while ticking and bashing with no need for specialists may be appropriate for the smaller, non-complex clients. Therefore, the evidence presented in the correspondence plot should certainly not be interpreted as a 'one size fits all' answer but various other factors, *inter alia* the size of the audit firm and the size and the complexity of the client, should be taken into consideration.

4.4 Complementary analysis

Generally, the use of two dimensions in the biplot, as is the case with this research, is acceptable (Agresti, 2002). The use of three or more dimensions is possible even though the interpretation of this type of plot may prove complex (Bendixen, 1996). The researcher chose to do the three-dimensional analysis to expand the exploratory potential of the study. This analysis was done simply to compare the results with that of the two-dimensional biplot to assess whether it contradicts or complements the two-dimensional biplot..
The results of responses received were also aggregated into a single frequency table and a three-dimensional scatter plot. The same basis for defining the axes as described in Section 4.1 was used to define the axes of a three-dimensional space.

Table 9 summarises the preliminary descriptive statistics and the Chi-squared test results.

Statistic	Value
Active rows	8
Active columns	8
Number of observations	780
Pearson's x^2 (48)	232.285
Prob < x^2	0
Total inertia	0.298
Number of dimensions	3
Explained inertia (3 dimensions) (%)	86%

Table 9: Descriptive statistics for three-dimensional correspondence analysis

Table 9 illustrates that the three dimensions, the *x*-, *y*- and *z*-axes in the three-dimensional correspondence plot, account for 86% of the total inertia and, therefore, for most part of the exploratory potential of the graphical plot. Even though the inertial contribution of the three dimensions is slightly higher than the 72.2% contribution for the two-dimensional solution, the latter is still considered acceptable (Agresti, 2002) and the researcher chose to further investigate and analyse the two-dimensional biplot.

At 49 degrees of freedom, the Chi-square statistic of 232.285 is significant at the 1% level ($p<0.01$), in other words, is in excess of the critical value using a 99% confidence level. This indicator provides evidence that there are strong associations between the rows and the columns in the three-dimensional solution as well.

The three-dimensional correspondence plot

The same basis for the selection of statistically significant quality traits and regulatory measures, as discussed in Section 4.1, was used to determine the three-dimensional solution.

The significant regulatory measures (R1 – R7) for the three-dimensional plot are the same as for the two-dimensional plot as presented in Table 7. There is a slight difference in the quality traits for the three-dimensional solution.
In addition to the significant quality traits identified for the two-dimensional solution (Q1 – Q5), the following quality trait is also found to be significant in the three-dimensional plot:

- **Q6**: Appointment of engagement quality control reviewers to enhance the overall quality of the engagement.

As discussed in Section 3.2, column points are used to label the axes. Table 10 below shows the label of each positive and negative axis on the three-dimensional correspondence plot.

Axis	**Label**
Positive *x*-axis (axis 1)	Independence and consultation
Negative *x*-axis (axis 1)	Engagement team competence
Positive *y*-axis (axis 2)	Culture of quality
Negative *y*-axis (axis 2)	Client acceptance and continuance
Positive *z*-axis (axis 3)	Ethical leadership
Negative *z*-axis (axis 3)	Quality reviews

Table 10: Labelling of axes

There is no change in the naming of the x- and y-axes which have been explained in Section 4.1. Quality traits relating to the establishment of policies and procedures promoting a culture of quality driven by firm leaders and strengthened by enhanced supervision and the ethical requirements relating to independence showed strong association on the positive *z*-axis, which the researcher named *Ethical leadership*. The importance of consulting on complex audit matters and appointing engagement quality control reviewers to enhance the overall quality of an engagement showed a significant association on the negative *z*-axis, therefore the naming of the negative *z*-axis as *Quality reviews.*

In addition to the loading of quality traits on the *x*- and *y*- axes which are identical in the three-dimensional plot illustrated in Table 6 in Section 4.1, Table 11 shows the loading of quality traits on the *z*-axis.

Axis	**Significant ISQC 1 quality traits**	**Axis name**
Positive *z*-axis (Dimension 3)	**Q1:** Establishing policies and procedures promoting a culture of quality driven by firm leaders and strengthened by enhanced supervision. **Q2**: Maintaining independence of mind and appearance, where required by relevant ethical requirements.	Ethical leadership
Negative *z*-axis (Dimension 3)	**Q5**: Ensuring that appropriate consultation on complex audit matters	Quality reviews

	takes place, that differences in opinion are resolved and that consultation conclusions are implemented. **Q6**: Appointment of engagement quality control reviewers to enhance the overall quality of the engagement.

Table 11: Relationship between the *z*-axis and quality traits

The significant regulatory measures were loaded on to the positive and negative z-axis shown in Table 12 below. Refer to Tables A3 and A4 in the Appendix for the statistics supporting the loading of the quality traits and regulatory measures.

Axis	Significant regulatory measures	Axis name
Positive *z*-axis (Dimension 3)	**R3**: Quality Assurance Reviews are performed on engagement partners' audit files by the PAAB on a regular basis and this process is overseen by the PAAB Quality Assurance Committee. **R6**: Allegations of improper conduct are investigated, in accordance with the PAAB Disciplinary Rules and the IFAC Code of Ethics for Professional Accountants, by the PAAB Investigations Committee.	Ethical leadership
Negative *z*-axis (Dimension 3)	**R1**: The registration and administration of training officers and training contracts, respectively, are performed by the PAAB.	Quality reviews

Table 12: Relationship between axes and regulatory measures

Analysis of the three-dimensional correspondence plot

The three-dimensional correspondence plot is presented in Figure 4 below.

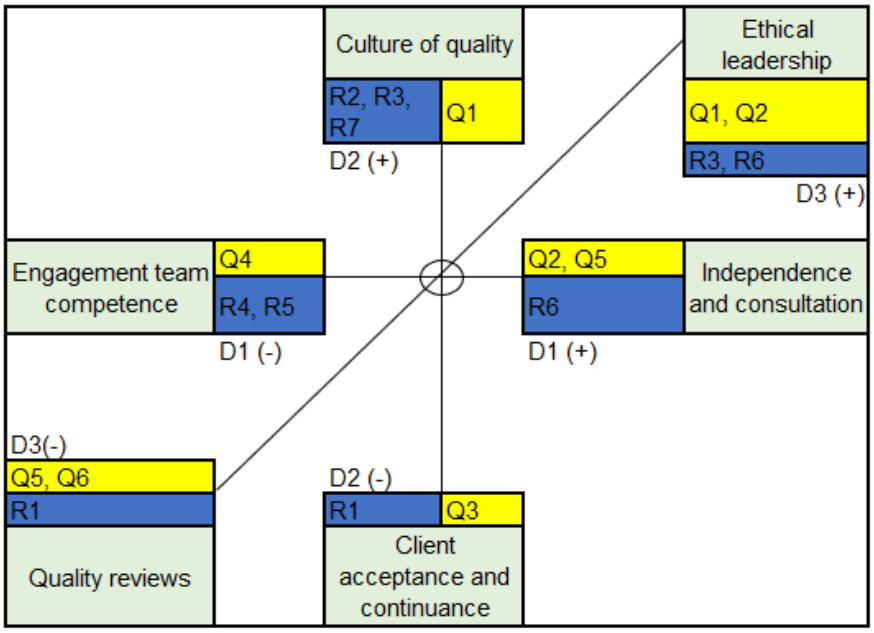


Figure 4: Correspondence plot[14]

In addition to the initial analysis of the two-dimensional plot in Section 4.2, the three-dimensional correspondence plot showed evidence of a strong correlation between the establishment of policies and procedures promoting a culture of quality by the firm's leadership (Q1), the ethical requirement to maintain independence and the regulatory measures enforcing quality reviews on engagement partners' audit files conducted by the PAAB and the investigation of improper conduct also performed by the PAAB. According to the plot, effective consultation on complex audit matters (Q5) and the use of engagement quality reviewers to enhance the overall quality of the audit is ensured by the regulatory requirement for training offices and training contracts to be registered and administered by the PAAB.

These additional results are not significantly different from those of the two-dimensional correspondence plot. The associations resulting from the three-dimensional plot are significantly the same as the two-dimensional plot and, therefore, there were no changes in the x- and y-axes. The naming of these axes remained the same. This fact supports the researcher's view that the two-dimensional plot was sufficient for further analysis. The only additional information coming from the three-dimensional plot is the z-axis, as discussed above. The three-dimensional analysis was merely performed to complement the two-dimensional plot which is the primary solution used to base further discussion with audit experts.

[14] Column headings (regulatory measures) plotted on the *x*-, *y*- and *z*-axes are shaded in blue. Row headings (ISQC 1 quality traits) also plotted on the *x*-, *y*- and *z*-axes are shaded in yellow.

CHAPTER 5. CONCLUSION

This research has provided some initial insight into the audit regulatory environment in Namibia and the role it plays in ensuring audit quality. Although the Namibian audit profession has historically been self-regulated, the Namibian regulators (ICAN and PAAB) have in recent years become more active in introducing relevant external regulation. For instance, the recently introduced Audit Development Programme has proven to enhance the level of competence of potential RAAs and this sentiment is echoed by audit experts.

Independence is regarded as the cornerstone of the audit profession by audit experts, irrespective of the size of the audit firm, while consultation on complex audit matters has become a critical part of audit methodology. Access to the expert consultants may prove to be more achievable in the bigger audit firms where consulting divisions are an integral part of these firms. The smaller firms do recognise the importance of consultation and while they may not have the expertise in-house, external consultants are engaged on a needs basis. This approach is supported by ISQC 1, that indicates that smaller firms can consult externally by making use of 'advisory services provided by other firms, professional or regulatory bodies or commercial organisations that provide the relevant services' (IAASB, 2009, p. 62). The association among these two quality traits and regulatory measure relating to the investigations process conducted by the PAAB on improper conduct is an indicator of their level of significance.

Respondents were unanimous in concluding that a culture of quality is set and determined by the 'tone at the top'. Several regulatory measures, including but not limited to the responsibility of holders of the CA (NAM) designation to demonstrate continuing professional development, have proven to drive this culture of quality. Some ambiguity existed around client and acceptance procedures and its association with the registration and administration of training officers and training contracts (illustrated in the correspondence plot). Despite this uncertainty, some of the audit experts conceded that there may be an indirect correlation relating to the quality of candidates registered by the PAAB who perform the client acceptance and continuance procedures.

Based on the combined results of the correspondence plot and the views of the audit experts, a conceptual diagram was developed by the researcher to illustrate the associations supported by the audit experts. Refer to Figure 5.



Figure 5: Conceptual model illustrating links among elements of regulation and audit quality

The relationships illustrated above indicate that the main audit quality themes in Namibia, conceptualised from a regulatory perspective, are maintaining independence and consulting on complex audit matters, the employment of sufficiently competent engagement team members and a culture of quality driven by firm leadership.

The correspondence plot showed a distinct association between the investigation of improper conduct (regulation) and independence and consultation (quality traits). With the audit profession in Namibia being historically self-regulated, these quality traits are already engrained in the Namibian audit practitioners. The external regulation relating to the investigation of improper conduct further legitimises these quality traits. Audit experts agree that the implementation of the Audit Development Programme by the PAAB has played a significant role in ensuring the competence of engagement team members, specifically that of potential RAAs in Namibia. Some respondents are of the opinion that competence should be harnessed right from the start of the training. This association is further evidenced in the correspondence plot. Regulatory measures relating to the accreditation of training offices, quality reviews and continuing professional development have shown a strong correlation with the promotion of a culture of quality by firm leadership. This sentiment is echoed by audit experts who stress the fact that a culture of quality is driven by the tone at the top and that the correlating regulatory measures are crucial to drive this behaviour.

5.1 Implications and contribution

This empirical research employed interpretive techniques to provide insight into the regulatory environment in Namibia and its effect on audit quality in the country. The results of this study offer empirical evidence from a primary source. The research departed from the traditional approach of testing of audit quality surrogates. The data set which was used to gain these insights is unique in nature, as is this level of audit research in Namibia. This level of detailed insights into the Namibian audit practice was the first of its kind and represented more interpretive research on audit quality in general.

On a more pragmatic level, the research is useful for both audit practitioners and regulators. By examining the associations between Namibian regulatory measures and ISQC 1 audit quality traits, the research shed light on the enhancement of audit quality through the current external regulatory measures in the country. The research also provides regulators with the necessary insight into the adequacy of external regulations in enhancing audit quality in a developing country such as Namibia.

With the current disparity between capabilities and resources in the large and small audit firms in the country, the regulators can consider streamlining some regulations to make them fit for purpose for the smaller audit firms. Furthermore, while independence is considered the cornerstone of the audit profession, regulation around ensuring independence is lacking. Regulators should consider introducing measures such as audit firm rotation, relative to the Namibia audit environment, or the disclosure of audit tenure in annual financial statements.

5.2 Limitations and areas for future research

This research was not free from limitations. The analysis of the findings from the correspondence plot was based on opinions of the respondents and not necessarily on absolute facts. The questions asked in the interviews were also of such a nature that the results could not be quantified. Since this was an empirical study which was not meant to generalise or quantify results, these limitations were not regarded as a fundamental flaw in the research. In fact, the study aimed to gauge perceptions using a statistical tool, bolstered by multiple perspectives from experts in the audit profession.

Future research on audit quality and regulation in Namibia can include the following:

- The expansion of this research to include the audit clients' views on what constitutes a quality audit;

- The expansion of this research by adding a comparison of the same in the South African context;
- The audit practitioners' perception of potential external regulations which can be considered useful and practical in Namibia;
- The effect of possibly introducing mandatory audit firm rotation in Namibia;
- The development of an audit regulatory framework for the PAAB

APPENDIX

See Tables A1 – A4 and Figures B1 – B2

Table A1: Areas of prior literature on audit quality

Table A1 shows areas where prior literature on audit quality is available. This list was used to base the literature review relating to audit quality in Section 2.2 and may not be exhaustive.

Theme	Details
Audit inputs	• Engagement team members • Audit processes performed by team members • Team members' industry knowledge and expertise • Independence
Audit processes	• Professional scepticism and judgement • Risk assessment processes • Client acceptance and continuance procedures • Quality assurance reviews • Consultation on complex matters
Audit outputs	• Auditor litigation • Discretionary accruals • The quality of financial reporting • Regulatory reviews
Audit firms	• Culture of quality promoted by firm leadership • Recruitment, training, compensation, workload allocation of staff and other incentives • Size of audit firm • Reliance on large clients to generate audit fees
Audit environment	• Reputational risk • Regulatory environment

	• Independence • Audit tenure
Audit clients	• Complex matters that require specialist review • Cross-country differences in legal systems

Table A2: Extract from the correspondence table provided to participants

The correspondence analysis sheet was sent to participants, together with an introduction of the study and instructions on how to complete the tool, as described in sections 3.2 and 3.4. Table A2 is an extract of the instructions provided to participants.

Extract from the instructions provided to participants

- In this study I wish to explore the perceived relationship between external audit regulations and certain audit quality elements as described in ISQC 1, so as to ascertain the role external regulation in Namibia plays in ensuring the quality of financial statements in the country.
- If you agree to participate, kindly complete the attached correspondence table in the excel spreadsheet.
- The correspondence table contains rows representing elements of audit quality labelled 'Q1' to 'Q8' and columns representing external regulatory measures labelled 'R1' to 'R8'. The order of rows and columns are of no particular importance.
- Please mark with an 'X' those cells that you feel correlate positively. In other words, if you think that a particular aspect of the regulation ('R1' to 'R8') has a positive association with or positive effect on an audit quality element ('Q1' to 'Q8'), mark the relevant cell with an 'X'. If this is not the case, then leave the cell blank.

Example

If you feel that the training office re-accreditation process ensure that engagement team members have the required competence and capability to apply and comply with ISA, then place an 'X' in that cell. If you feel that this is not the case, then leave the cell blank. The remainder of the table is completed in the same fashion.

Table A3: Statistics for quality traits as per ISQC 1 in symmetric normalisation

Table A3 summarises the statistics (mass, inertia and contribution of point to inertia of dimension) generated by STATA relating to the audit quality traits for a three-dimensional plot. These statistics were used to determine which quality traits are statistically significant and should be loaded on the three-dimensional plot as discussed in section 4.4.

ISQC 1	Mass				Inertia	Contribution of Point to Inertia of Dimension		
						Axis 1	Axis 2	Axis 3
1	0.137	0.028	0.916	-0.534	0.047	0.000	0.358	0.192
2	0.141	0.704	0.418	0.573	0.046	0.209	0.077	0.227
3	0.127	-0.202	-0.875	-0.054	0.037	0.015	0.302	0.002
4	0.136	-1.207	0.034	0.245	0.072	0.593	0.000	0.040
5	0.078	0.686	-0.539	0.520	0.025	0.110	0.071	0.104
6	0.106	0.411	-0.378	-0.888	0.034	0.054	0.047	0.412
7	0.103	0.148	-0.516	-0.067	0.016	0.007	0.085	0.002
8	0.172	-0.151	0.333	0.156	0.020	0.012	0.059	0.020
Active Total	**1.000**				**0.298**	**1.000**	**1.000**	**1.000**

Table A4: Statistics for regulatory measures in symmetric normalisation

Table A4 summarises the statistics (mass, inertia and contribution of point to inertia of dimension) generated by STATA relating to the regulatory measures for a three-dimensional plot. These statistics were used to determine which regulatory measures are statistically significant and should be loaded on the three-dimensional plot as discussed in section 4.4.

Regulation	Mass				Inertia	Contribution of Point to Inertia of Dimension		
						Axis 1	Axis 2	Axis 3
1	0.059	-0.521	0.758	-0.640	0.024	0.048	0.105	0.119
2	0.150	0.016	0.809	0.065	0.037	0.000	0.306	0.003
3	0.212	0.381	-0.602	-0.622	0.052	0.092	0.239	0.401
4	0.132	-0.959	-0.400	0.155	0.051	0.364	0.066	0.016
5	0.136	-0.652	-0.315	0.345	0.034	0.173	0.042	0.079
6	0.131	0.839	-0.350	0.757	0.053	0.276	0.050	0.368
7	0.133	0.278	0.651	0.034	0.029	0.031	0.176	0.001
8	0.047	0.342	0.339	-0.239	0.018	0.017	0.017	0.013
Active Total	**1.000**				**0.298**	**1.000**	**1.000**	**1.000**

Figure B1: Row points for ISQC 1 quality traits

Figure B1 is a graphical display of the row points for quality traits, as discussed in section 4.2.

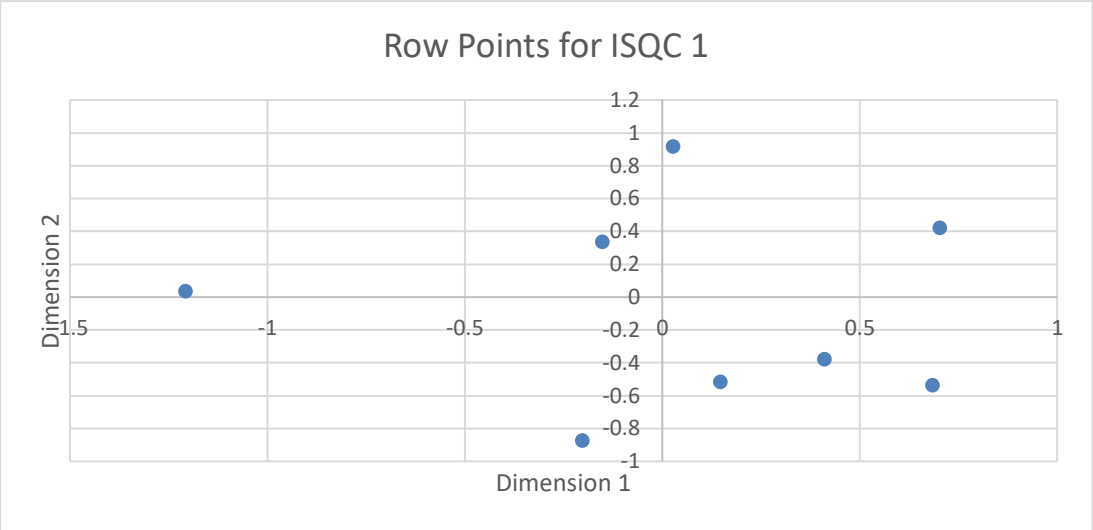
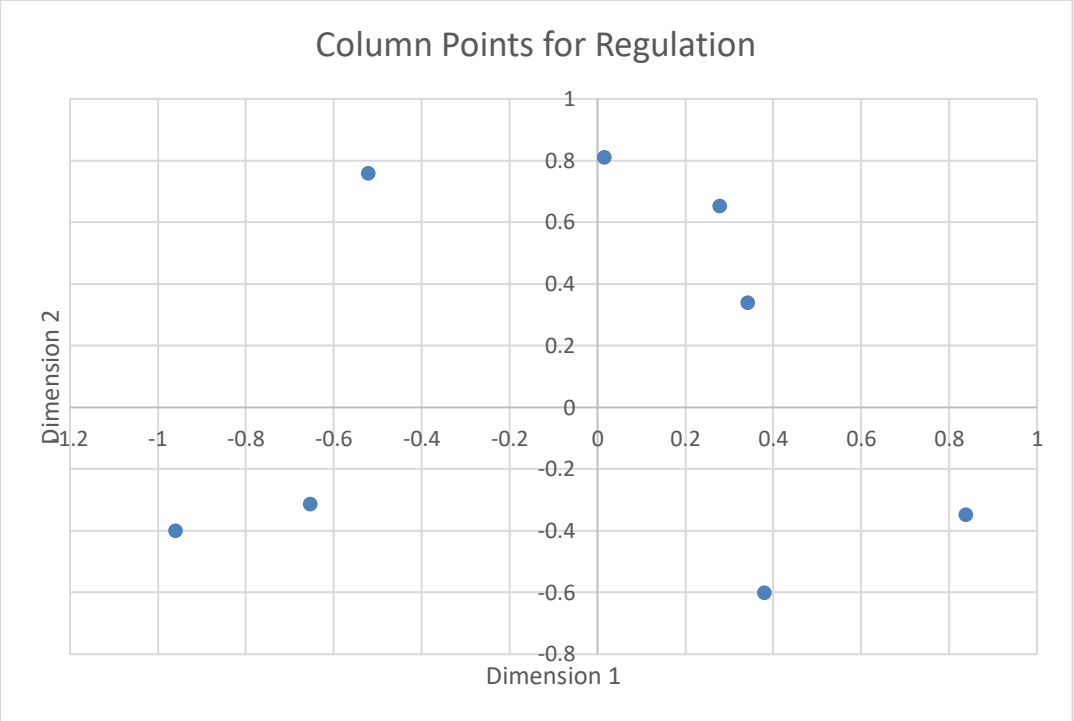


Figure B2: Column points for regulatory measures

Figure B2 is a graphic display of the column points for regulatory measures, as discussed in section 4.2.



REFERENCES

ACCA. (2010). Reshaping the audit for the new global economy. Retrieved from internal-pdf://1310443371/Reshaping the audit for the new global economy.pdf

Agresti, A. (2002). Categorical Data Analysis. John Wiley & Sons. Retrieved March 30, 2020, from https://mathdept.iut.ac.ir/sites/mathdept.iut.ac.ir/files/AGRESTI.pdf

Alvesson, M. (2003). Beyond Neopositivists, Romantics and Localists: A Reflective Approach to Interviews in Organisational Research. *The Academy of Management Review, 28*, 13-33.

Barac, K., Gammie, E., Howieson, B., & Van Staden, M. (2016). *The capability and competency requirments of auditors in today's complex global business environemnt*. Retrieved from United Kingdom:

Bendixen, M. (1996). A practical guide to the use of correspondence analysis in Marketing research. *Marketing Research On-Line, 1*, 16-38.

Bishop, C., Hermanson, D., & Houston, R. (2012). PCAOB Inspections of International Audit Firms: Initial Evidence. *International Journal of Auditing*.

Carrington, T. (2010). An analysis of the demands on a sufficient audit: Professional appearance counts! *Critical Perspectives on Accounting, 21*, 669-682.

Church, & Shefchik. (2012). PCAOB Inspections and Large Accounting Firms. *Accounting Horizons, 26*(1), 43-63.

Creswell, J. W. (2014). *Research Design*: SAGE.

Daniels, B., & Booker, Q. (2011). The effects of audit firm rotation on perceived auditor independence and audit quality. *Research in Accounting Regulation*, 78-82.

De Beer, L., & King, M. (2018). *The Auditor: Quo Vadis?* New York: Routledge.

De Jager, H., & Odendaal, E. M. (2008). Regulation of the auditing profession in South Africa. *Southern African Journal of Accountability Auditing Research, 8*, 1-13.

DeAngelo, L. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 183-199.

Dikuua, Gertze, Ketjinganda, Mahindi, & Wyk, V. (2018). Exploring Unchartered Waters; Insights into the audit profession: A Namibian Perspective. *Accounting Perspectives in Southern Africa*, 34-44.

Doey, L., & Kurta, J. (2011). Correspondence Analysis applied to psychological research. *Tutorials in Quantitative Methods for Psychology*, 5-14.

Firth, M., Rui, O. M., & Wu, X. (2012). How Do Various Forms of Auditor Rotation Affect Audit Quality? Evidence from China. *The International Journal of Accounting, 47*(1), 109-138. doi:10.1016/j.intacc.2011.12.006

Francis. (2004). What do we know about audit quality? *The British Accounting Review, 36*, 345-368.

Francis. (2011). A Framework for Understanding and Researching Audit Quality. *Auditing: A Journal of Practice & Theory*, 125–152.

Francis, & Wilson, E. (1988). Auditor Changes: A Joint Test of Theory Relating to Agency Costs and Auditor Differentiation. *Accounting Review*.

Garnett, R., Maroun, W., & Ram, A. (2016). Accounting for the Bitcoin: accountability, neoliberalism and a correspondence analysis. *Meditari Accountancy Research, 24*(1), 2-35. doi:10.1108/medar-07-2015-0035

Harber, M. (2018). An analysis of the primary IRBA arguments with regards to mandatory audit firm rotation: A case of faulty reasoning? *Accounting Perspectives in Southern Africa*, 3-12.

Holm, C., & Zaman, M. (2012). Regulating audit quality: Restoring trust and legitimacy. *Accounting Forum, 36*, 51-61.

Humphrey. (2008). Auditing research: a review across the disciplinary divide. *Accounting, Auditing & Accountability Journal, 21*(2), 170-203.

Humphrey, Kausar, A., Loft, A., & Woods, M. (2011). Regulating Audit beyond the Crisis: A Critical Discussion of the EU Green Paper. *European Accounting Review, 20*(3), 431-457. doi:10.1080/09638180.2011.597201

IAASB. (2009). ISQC 1: Quality controls for firms that perform audits and reviews of historical financial information, and other assurance and related services engagements. In *SAICA members' handbook*. Pietermaritzburg: LexisNexis.

ICAN. (2018). About ICAN. *ICANCPD.* Retrieved from http://www.icancpd.net/#

IESBA. (2018). *Handbook for the International Code of Ethics for Professional Accountants*: International Federation of Accountants.

IFAC. (2016). About IFAC. Retrieved from https://www.ifac.otg/about-ifac/membership/country/namibia

Institute of Directors in Southern Africa. (2016). *King IV: Report on Corporate Governance for South Africa* Retrieved from Johannesburg:

IRBA. (2015). IRBA strengthens auditor independence by mandating disclosure of audit tenure. Retrieved from https://www.irba.co.za/guidance-for-ras/general-guidance/audit-tenure

IRBA. (2018). MAFR gazetted to enhance auditor independence and protect public interest. Retrieved from https://www.irba.co.za/news-headlines/press-releases/mafr-gazetted-to-enhance-auditor-independence-and-protect-public-interest

Knechel, W., Krishnan, G., Pevzner, M., & Shefchik, L. (2013). Audit Quality: Insights from the Academic Literature. *Auditing: A Journal of Practice & Theory, 32*(1), 385-421.

Kudlats, J., Money, A., & Hair, J. (2014). Correspondence analysis: A promising technique to interpret qualitative data in family business research. *Journal of Family Business Strategy, 5*(1), 30-40. doi:10.1016/j.jfbs.2014.01.005

Leedy, P. D., & Ormrod, J. E. (2014). *Practical Research: Planning and Design*: Pearson Education International.

Lohlein, L. (2016). From peer review to PCAOB inspections: Regulating for audit quality in the U.S. *Journal of Accounting Literature*, 28-47.

Maroun, W. (2014). Reportable irregularities and audit quality: Insights from South Africa. *Accounting Forum*.

Maroun, W., & Atkins, J. (2014). Section 45 of the Auditing Profession Act: Blowing the whistle for audit quality? *The British Accounting Review, 46*(3), 248-263. doi:10.1016/j.bar.2014.02.001

Maroun, W., Turner, M., & Sartorius, K. (2011). Does capital gains tax add to or detract from the fairness of the South African Tax system? *South African Journal of Economic and Management Sciences, 14*(4), 436-448.

Repeal of the Disciplinary Rules made under the Public Accountants' and Auditors' Act, 80 of 1991 and adoption of new Disciplinary Rules on 7 June 2007, (2008).

PAAB. (2015). The Audit Development Programme. Retrieved from http://paab.com.na/page11.html

PAAB. (2016). *Draft Public Accountants' and Auditors' Bill*. Retrieved from Windhoek:

PAAB. (2017). PAAB Training and Admin. Retrieved from http://www.paab.com.na/page10.html

Palmrose, Z. (1997). Audit litigation research: Do the merits matter? An assessment and directions for future research. *Journal of Accounting and Public Policy*, 355-378.

PCAOB. (2013). Discussion - Audit Quality Indicators. *PCAOB.* Retrieved from https://pcaobus.org/News/Events/Documents/05152013_SAGMeeting/Audit_Quality_Indicators.pdf

Power. (2003). Auditing and the production of legitimacy. *Accounting, Organizations and Society, 28*, 379-394.

Ram. (2018). Taxation of the Bitcoin: initial insights through a correspondence analysis. *Meditari Accountancy Research, 26*(2), 214-240. doi:10.1108/medar-10-2017-0229

Rowley, J. (2012). Conducting research interviews. *Management Research Review, 35*(3/4), 260-271. doi:10.1108/01409171211210154

Watts, R., & Zimmerman, J. (1983). Agency Problems, Auditing and the Theory of the Firm: Some Evidence. *Journal of Law and Economics, 26*(3), 613-633.