International Journal of Economics and Financial Issues

ISSN: 2146-4138

available at http: www.econjournals.com

International Journal of Economics and Financial Issues, 2023, 13(5), 119-127.

The Impact of Ethics on the Audit Quality of Firms in Sub-Sahara Africa

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Received: 09 June 2023 **Accepted:** 04 September 2023 **DOI:** https://doi.org/10.32479/ijefi.14712

ABSTRACT

Sub-Saharan Africa (SSA) is a region characterised by unique challenges related to weak governance structures, inadequate regulatory frameworks, and limited resources. These challenges pose significant risks to audit quality, as they can compromise the independence, objectivity, and professional judgment of auditors. Moreover, the ethical values of the region can also have a significant impact on audit quality, as they shape the behaviour and attitudes of auditors and the firms they audit. The aim of this study was to investigate the impact of ethics on audit quality among firms in SSA. The study uses a sample of 323 firms from 12 sub-Saharan African countries, covering the period from 2012 to 2021. The research design is quantitative, employing a panel data approach and regression analysis. The econometric model used to estimate the impact of ethics on audit quality was based on variables such as audit quality, ethical values, tenure, audit size, auditor reputation, firm size, return on assets, ownership structure and board independence. The data was collected from the World Economic Forum, Bloomberg Database and other sources. Regression results demonstrated a negative and insignificant impact of ethical values on audit quality. However, the tenure of auditors had a positive impact on audit quality. The results of this study suggest the importance of promoting Ethical behaboiur and strengthening ethial standards in auditing profession in SSA.

Keywords: Audit Quality, Ethics, Audit Tenure, Audit Size, Ownership Structure
JEL Classifications: M4, M42

1. RESEARCH BACKGROUND AND GAP

A debate among scholars on how ethics in sub-Sahara-Africa (SSA) and elsewhere impact audit quality is currently occurring (Abdelhak et al., 2019; Materu and Righetti, 2018, 2019; Waweru, 2014). A clear understanding of how ethics directly or indirectly impact audit quality has yet to be empirically investigated as no studies heretofore have investigated this causal relationship in detail (Arowoshegbe et al., 2017; Materu and Righetti, 2019; Okaro and Okafor, 2015). An empirical question dominating the discussion is: How does ethics impact audit quality in SSA. In our view, the response to this question fills research gap in the literature and enables similar research.

Audit Quality has been defined differently by many scholars (Jones et al., 2018; Ponemon, 2010; Xiao et al., 2020). In the same vein, the financial reporting council argued that there is no agreed upon definition of audit quality that can be used as a standard against which impact and performance can be assessed. For instance, Cameran et al. (2022), argue that "users of financial reports deem high quality audit to be those that can preclude substantial inaccuracies in the financial statements of any entity."

Global crisis and a sharp increase in accounting scandals such as Patisserie Valerie in the UK (2018), Kingdom Bank Africa Limited and Choppies Limited in Botswana (2015, 2018 respectively), Crane Bank in Uganda (2018), Sunbeam, Global Crossing, Enron and WorldCom, and most recently Steinhoff in South Africa have shocked the public and caused policymakers and regulators to significantly reconsider the need for audit quality drivers, which aim to enhance audit Quality (Amiruddin, 2019; Rossouw and Styan, 2021) In all case cited above evidence of fraud occurred despite of clean audits (unqualified audit opinion expressed of the financial statements by auditors).

Herda et al. (2019) found "a stream of auditing research from many countries over the last 30 years highlighting the prevalence of a group of behaviours by auditors, generally libelled as audit quality reduction behaviours or audit quality threatening behaviours which includes a wide range of activities, such as premature sign offs, over-reliance on client work, and biasing sample selection to which auditors' resort to cope with what they perceive as excessively tight time constraints."

These behaviours have been highlighted by Harber and Marx (2020) as threats to the quality of audits and have potentially severe consequences for audit firms and professionals. Alberti et al. (2022) concur that ethical norms in auditing firms have become a major cause of audit quality deterioration. This stressful situation is pronounced in both Big4 and small audit firms in which a multitude of unethical behaviours are strong which justifies further research into the potential impact of ethics on audit quality.

This study extends debates by investigating the impact of ethics on audit quality in Sub-Sahara Africa. Therefore, the main aim of this article is to assess the impact of ethics on the audit quality of firms in sub-Sahara Africa. This research paper will address an empirical gap in ethics in SSA. The study will contribute to the body of knowledge in a number of ways: it will provide an extension of a significant stream in auditing literature. Evidence of a link between ethics and audit quality was missing in auditing literature and makse a contribution in this regard.

2. EMPIRICAL LITERATURE

2.1. Audit Quality

As audit quality (AQ) has been highlighted as a concern (IRBA, 2021). Audit quality ensures that auditors do not experience a conflict of interest by providing non-audit services (DeAngelo, 1981a; Watts and Zimmerman, 1981). Quick (2012) argues that if changes in the auditor's role, the audit market structure and regulatory framework have an adverse effect on audit quality, they should not be made.

DeAngelo (1981b) and Palmrose (1988) define audit quality as the joint probability of detecting and reporting material financial statement errors. Therefore, DeAngelo (1981a) contends that audit quality depends on the competence of auditors to detect breaches and be able to withstand the pressure from clients not to reveal them. The quality of an audit is equal to compliance with auditing standards (PCAOB, 2013) and determines the credibility of financial statements (Aruñada, 2004). In addition, it is determined by clients conforming to regulations, which the auditor should make clear to them (Francis, 2011). However, audit quality is not just about regulations or auditing standards but also the training given to personnel and most importantly, ethical standards play a vital role in ensuring that quality is delivered in an audit opinion.

The International Standard for Quality Control (ISQC) 1 was adopted by the International Auditing and Assurance Board (IAAB) in 2004 to ensure audit quality when firms review financial statements and provide various services (Mohd-Sanusi et al., 2008). For firms to be ethically capable of performing their core mandate, the ISQCI requires them to have all policies and processes in place for effective operation (Pflugrath et al., 2007). Firms' wide range of activities are expected to be managed through the audit quality elements of the ISQC1, which ensure that personnel comply with regulations and professional standards in producing reports (Mohd-Sanusi et al., 2008). The objective of ISQC1 is to improve audit quality through strengthening the ethical environment of the audit firm so that audit quality is sustainable (Brivot et al., 2018).

The International Standard on Quality Control 1 (ISQC 1), set up by the International Accounting and Assurance Board (IAASB), encompasses elements that create an environment that maximises consistent audit quality (IAASB, 2014). Audit quality involves a simple dichotomy of audit failure or no audit failure, which depends on the professional expertise of the auditor completing the financial reports. According to Francis (2004), audit failure usually occurs when an auditor does not adhere to professional standards/ethics and unjustifiably issues financially unqualified audit reports (i.e. a clean audit) indicating accurate financial statements, whilst, in fact, there are severe errors and material misstatements. Thus, audit failure is due to a lack of compliance with the international standard on auditing 220 (ISA 220) and the ISQC 1. Like the ISQC 1, the ISA 220 controls audit quality and indicates that the outcome of an auditor's report should be accurate and based on audit quality (International Auditing and Assurance Standards Board, 2009; Maroun, 2015).

For a fair presentation of an independent opinion to prevail, auditors are required to comply with the audit quality procedures of the ISA 220 (IAASB, 2018a); SAICA (2020). These are legal and regulatory requirements that are professionally applicable, which stipulate that auditors should issue appropriate reports (Azmat, 2014; IAASB, 2018a). The ISQC 1 plays a role in audit firm governance by emphasising consistent and sustainable AQ, which ensures the value and pertinence of a firm's audit services and the resultant trust and confidence of its clients (Maroun, 2015; SAICA, 2020). Globally, ISQC 1 ensures AQ and is consistent with corporate governance in Sub-Sahara-Africa and other jurisdictions and provides practitioners reasonable account regarding carrying out the importance of an interpretive evaluation for AQ purposes (Maroun, 2015).

2.2. Ethics and Audit Quality

Philosophical arguments regarding the impact of ethical intensity and on audit quality of firms have imbued scientific reasoning with a conscience (Martinov-Bennie and Pflugrath, 2019; Sweeney et al., 2010; Tsui, 2016). According to Tsui (2016), auditing function effectively when ethical moral behaviour theory governs conflicts, imbalances, personal interests, mutual benefits and ethical principles is operating well (Smith and Hume, 2015).

Johari et al. (2021) alluded that ethical decisions made by auditors can be greatly influenced by the ethical culture in their audit firms. In their study, Smith and Hume (2015) noted that the ethical environment factor describes the degree to which unethical behavior is punished, the degree to which ethical behaviour is rewarded, leaders, role modelling and ethical norms. Kung and Huang (2018) largely supported Emerson et al. (2007) views adding that ethical culture can be regarded as a subset of the organisational culture that represents a multidimensional interplay among formal and informal behavioural control systems. Research findings worldwide on ethics within the auditing profession have focused on two of the four components of Rest's (1986) ethical reasoning process model (moral sensitivity, moral judgement, moral motivation, and moral courage). Those are the relevant individuals' ethical evaluation and their actions to act morally.

Rest's moral ethical behaviour theory is briefly outlined as: (1) component one is referred to as moral sensitivity, where in making an ethical decision, the individual must have been able to make some interpretation of the particular situation in terms of actions was possible, who would be affected by each course of action, how the interested parties would regard such effect on their welfare (Klinker and Hackmann, 2004). (2) component two is referred to as moral judgement, where in making an ethical decision, the individual must have been able to make a judgement about which course of action was morally right, thus labelling one possible line of action as what an individual ought (morally ought) to do in that situation (Klinker and Hackmann, 2004). (3) component three is referred to as moral motivation, where in making an ethical decision, the individual must have prioritised moral values above other personal values such that the decision made was intended for what is morally right (Klinker and Hackmann, 2004). (4) component four is referred to as moral courage, where in making an ethical decision, the individual must have had sufficient perseverance, ego, strength, and implementation skills to follow through on his/her intention to behave morally, to withstand fatigue and flagging will and to overcome obstacles (Klinker and Hackmann, 2004; Rest's, 1986; Rest, 1994; You and Bebeau, 2013).

Ismail and Rasheed (2019) expanded this model by considering contextual variables such ethical culture of the organisation. However, there has been scant research on the impact of ethical culture and ethics on the audit quality of firms in Sub-Sahara Africa (Douglas et al., 2018). In addition, calls have been made for research on the impact of Rest's on the audit quality of firms and ethical decision-making (Abdelhak et al., 2019; Barrainkua and Espinosa-Pike, 2018). However, to the best of researchers' knowledge, no empirical study investigated ethics in connection with audit quality in SSA. Hence the need for empirical evidence on this topic in Sub-Sahara Africa in order to address the specific cultural issues towards audit quality.

2.3. Audit Tenure and Audit Quality

According to Karno et al. (2022) audit tenure refers to the length of time an auditor has been providing audit services to a particular client. The impact of tenure on AQ has been a topic of discussion for many years (Pesudo and Nugroho, 2022; Priyanti and Dewi, 2019; Salman and Setyaningrum, 2023). Some studies suggest that longer tenure can lead to a decline in audit quality due to the factors such as auditor complacency, reduced independence, and familiarity with the client (Jadiyappa et al., 2021). Research has indicated that the most efficient way to strengthen audit quality is the implementation of mandatory audit firm rotation (MAFR) (Franzel, 2004; Narayanaswamy and Raghunandan, 2019; Priyanti and Dewi, 2019).

Elder et al. (2015) investigated the impact of audit firm rotation policy (AFRP) on AQ and found a positive correlation. Therefore, it was recommended that municipalities implement it and use auditors specialising in public sector audits to ensure AQ (Elder et al., 2015). Bronson et al. (2016) evaluated the relationship between MAFR and audit markets and the findings from the study revealed that the regulation improves AQ through the reduction of incidences of earnings smoothing by reducing reporting of insignificant profits and increasing that of large losses.

Although long audit tenure help the auditor to better understand the client's characteristics which impact low-quality audit, other researchers such as Martani et al. (2021) soundly criticise long audit tenure reduces audit quality. In the context of firms in SSA, the impact of tenure on audit quality has also been studied (Nurmalita and Asmara, 2022). Duramany-Lakkoh (2022) found a negative relationship between audit tenure and audit quality in SSA, indicating that longer audit tenures may lead to lower-quality audits.

Putri et al. (2022) found that auditors may become too familiar with their clients over time, reducing their ability to identify and report on potential issues or weaknesses in the client's financial reporting. Putri et al. (2022) further found that long auditor tenures may result in a closer relationship between the auditor and client, potentially leading to a loss of auditor independence. However, other studies have found mixed results when examining the relationship between tenure and audit quality (Dunn et al., 2021). They argue that other factors may be at play that impacts audit quality in SSA beyond just auditor tenure.

Bala (2022) found that audit tenure has significant negative impact on audit quality in Nigeria. However, one potential gap in this study is that it only examines one country in Sub-Sahara Africa, and it is unclear whether these findings would hold true in other countries in the region. Bageni (2022) studied the impact of auditor tenure on audit quality in Kenya and found a mixed relationship. Specifically, they found that longer auditor tenures are associated with higher audit quality for larger firms, but lower for smaller firms.

Qawqzeh et al. (2018) studied the impact of auditor tenure on audit quality in Ghana and found no significant relationship between the two variables. However, they did find that auditor specialisation has a positive impact on audit quality in Ghana. Additionally, the authors do not explore the potential mechanisms behind why auditor specialisation may lead to higher audit quality. Briefly, while there is some evidence to suggest that longer auditor tenures may lead to lower audit quality in SSA, the literature is not entirely consistent in this regard. More research is needed to better understand the impact of auditor tenure on audit quality in different countries in the region, as well as the potential mechanisms behind any observed relationships. Additionally, other factors beyond auditor tenure may also be important determinants of audit quality in Sub-Saharan Africa.

2.4. Auditor Reputation and Audit Quality

Several recent studies have examined the impact of audit reputation, particularly for Big 4 audit firms, on audit quality in the context of accounting scandals (Ozili, 2022). For example, Blum et al. (2022) studied the impact of auditor reputation on audit quality in the Korean accounting scandal involving Daewoo Shipbuilding and Marine Engineering. They found that Big 4 auditors were more likely to issue going concern opinions for their clients, which may indicate higher audit quality. However, they also found that the reputational benefits of working with a Big 4 auditor were more pronounced for firms that had not previously experienced a financial restatement.

Tonekaboni et al. (2022) studied the impact of auditor reputation on audit quality in the context of the Chinese accounting scandal involving Luckin Coffee. They found that Big 4 auditors were less likely to issue going concern opinions for their clients, which may suggest lower audit quality. However, they also found that Big 4 auditors were more likely to issue modified audit opinions, which may indicate a higher willingness to report on potential issues. Tang et al. (2022) studied the impact of auditor reputation on audit quality in the context of the Chinese accounting scandal involving Kangde Xin Composite Material Group. They found that Big4 auditors were more likely to issue modified audit opinions and to disclose more information in their audit reports, which may suggest a higher audit quality.

Overall, the findings on the impact of auditor reputation on audit quality in the context of accounting scandals are mixed (Anggraini et al., 2022). While some studies suggest that Big 4 auditors may provide higher quality audits in these situations, others suggest that Big 4 auditors may be less willing to report on potential issues (Izza, 2019). Additionally, the reputational benefits of working with a Big 4 auditor may depend on the specific context of the accounting scandal and the prior history of the client (Viana et al., 2021).

The discourse about auditor independence (AI) and audit quality (AQ) for many decades has been a focus in many developed and developing economies globally (DeFond and Zhang, 2014; Viana et al., 2021). This has led to a big push to adopt mandatory audit firm rotation (MAFR), which is, "the imposition of a limit on the period of years an accounting firm may be the auditor of record for a particular issuer" (Kamarudin et al., 2022). This debate is due to the mandatory audit firm rotation (MAFR) regulation imposed on audit firms internationally to serve the public interest. Pinto et al. (2019) investigated perceptions of senior auditors at one of the Big 4 of MAFR in Portugal. The results indicated that the senior auditors had a negative perception of MAFR, which they believed would lead to a loss of client-specific knowledge. The study concluded that the link between audit tenure and independence is weak, which has a negative effect on AQ.

2.5. Audit Size and Audit Quality

There have been several studies conducted in recent years that have examined the impact of audit size and audit quality (Bawuah, 2022). Lestari et al. (2022) investigated the impact of audit firm size on audit quality and analysed data from the Australian audit market and found that larger audit firms tend to provide higher-quality audits. The authors suggested this may be because larger firms have greater resources and expertise to devote to the audit process. The impact of audit quality on earnings quality in the Korean audit market has been investigated by Salterio (2022). This study examined data from the Korean audit market and found that higher-quality audits are associated with higher earnings quality. The authors suggested that this may be because high-quality audits provide greater assurance to investors and reduce the likelihood of earnings manipulation.

Athavale et al. (2022) researched on the Impact of Audit Firm Size on Financial Reporting Quality. They analysed data from private companies in China and found that larger audit firms tend to provide higher-quality audits. The authors suggested this may be because larger firms are more likely to have experienced auditors and better-quality control systems. However, critics of the big audit size argue that large audit firms can lead to poor audit quality in several ways, including: (1) Lack of attention to smaller clients, (2) overreliance on technology, (3) reduced auditor independence, (4) pressure to meet financial targets (Cahyanti et al., 2022).

2.6. Firm Size and Audit Quality

Faizah et al. (2022) study examined data from the UK and found that smaller audit firms tend to provide higher-quality audits for private firms. The authors suggested that this may be because smaller firms focus more on client service and may be more willing to invest time and resources into understanding their clients' businesses. Debnath et al. (2022) investigated the impact of firm size on audit quality in Bangladesh and found that larger audit firms tend to provide higher-quality audits. The authors suggested that this may be because larger firms have more resources and expertise to devote to the audit process.

The Impact of Client Size on Audit Quality has also been investigated by Hussin et al. (2022). Their study examined data from the banking industry in Malaysia and found that larger clients tend to receive higher-quality audits. The authors suggested this may be because larger clients are more complex and require greater expertise to audit effectively. Elmarzouky et al. (2023) suggest that the relationship between firm size and audit quality is complex and may depend on various factors, including the specific context and industry being studied.

3. RESEARCH METHODOLOGY

The research design for this study is quantitative, as it involved the use of numerical data to examine the relationship between ethics and audit quality. Specifically, a panel data approach was employed, which involves collecting data from multiple time periods and across multiple firms. This design allowed for the analysis of changes in variables over time and could provide insights into the long-term impact of ethics on audit quality in sub-Saharan Africa.

The data for this study was a secondary data, which refers to data that has been previously collected by other researchers or organisations. The data were collected from reputable sources such as financial statements, audit reports, and other relevant financial databases. Other data were also collected from the databases of Bloomberg and World Economic Forum. The data included in the variables related to ethics, audit quality, and other factors that may impact audit quality, such as firm size, ownership structure, and industry type. The use of secondary data allowed for a cost-effective and efficient approach to data collection, as it avoids the need for primary data collection and can provide a large sample size for analysis.

The population consisted of firms operating in sub-Saharan Africa. Sub-Saharan Africa is a diverse region with a variety of countries, industries, and economic conditions. The study selected 323 firms from 12 sub-Saharan African countries based on their availability and suitability for the research objectives, taking into consideration factors such as the availability of financial statements, audit reports, and other relevant data. The study covered 10 years, from 2012 to 2021. The definitions of variables and their measurement are presented in Table 1.

4. DATA ANALYSIS METHOD

The data analysis for this study involved panel data and regression analysis. Panel data analysis, also known as longitudinal data analysis, allowed for the examination of changes in variables over time within the same firms. This approach could help control for firm-specific effects and provide more robust results. Regression analysis was also used to estimate the relationship between ethics and audit quality while controlling for other potential confounding variables. Different regression models, such as fixed effect or random effect, were employed based on the nature of the data and research objectives.

The study employed the following econometric model to estimate the impact of ethics on audit quality among firms in sub-Saharan Africa.

$$AQ_{it} = \alpha_0 + \alpha_1 Ethics_{it} + \alpha_2 Tenure_{it} + \alpha_3 AudSize_{it} + \alpha_4 AudRep_{it} + \alpha_5 FSize_{it} + \alpha_6 ROA_{it} + \alpha_7 Ownership_{it} + \alpha_8 BInd_{it} + \varepsilon_{it}$$

5. RESULTS AND DISCUSSION

This section presents the statistical results of the study. First, we present the summary statistics results of the variables in Table 2.

The results suggest that the average audit quality (AQ) score (mean=5.62) is relatively high, while the ethical values of firms (Ethics) are moderately rated (mean=4.07). The return on assets (mean=6.37%) and firm size (mean=\$0.04b) also show variability, with relatively high standard deviations. The ownership structure (mean=64.93%) and auditor reputation (mean=0.84) variables show moderate levels of variability, while auditor tenure (mean=6 years) and audit size (mean=\$0.32m) variables show relatively low variability. The implications of these results could be interpreted in several ways. Firstly, the relatively high average audit quality (AQ) score suggests that firms in SSA may have reasonably good audit quality practices. However, the moderate rating of ethical values (Ethics) indicates that there may be room for improvement in terms of ethical practices among firms in the region. This could highlight the importance of promoting ethical behaviour and strengthening ethical standards in the auditing profession in SSA.

5.1. Multicollinearity Test

The presence of multicollinearity between variables could potentially lead to inflated standard errors and unstable estimates in the regression model. As a result, the study checked for multicollinearity, whose results are presented in Table 3.

Table 1: The variables in the model, their definitions and sources are presented

Variable	Variable definition
AQ	Audit Quality, measured by the quality of audit in a country. The audit quality data were retrieved from the database of the World Economic Forum. It ranges from 1 to 7 where 1=low quality; and 7=high quality
Ethics	Ethical values of firms in a country. The data for ethical values was obtained from the database of the World Economic Forum. It ranges from 1 to 7 where 1=not ethical; and 7=highly ethical
Tenure	Tenure measured by the number of years audited auditors. Audit tenure data was retrieved from Bloomberg Database
AudSize	Audit size, measured by the natural logarithm of audit fees paid. Audit tenure data was collected from Bloomberg Database
AudRep	This variable represents auditor reputation, which was measured by Big 4 and non-Big 4. A dummy variable of 1 represents a firm audited by one of the top four auditing firms, comprising KPMG, Ernst and Young, PwC, and Deloitte. Zero is also used to represent firms not audited by one of the top 4 auditing firms. Audit tenure data was extracted from Bloomberg Database
FSize	Firm size was measured by the natural logarithm of total assets. Audit tenure data was obtained from Bloomberg Database
ROA	ROA denotes return on assets, measured by the percentage of net profit to total assets. Audit tenure data was retrieved from Bloomberg Database
Ownership	Ownership structure, measured by the percentage of institutional shareholders in a firm. The ownership structure data was obtained from Bloomberg Database
BInd	Board Independence, measured by the percentage of non-executive directors on the board. This data was retrieved from Bloomberg Database

AQ: Audit quality

Table 2: Summary statistics

Variables	Obs	Mean	SD	Min	Max
AQ	3.066	5.62	2.52	2.00	7.00
Ethics	3.578	4.07	0.51	3.11	5.14
ROA	3.302	6.37	24.32	−56.97	460.43
FSize (\$b)	3.341	0.04	0.31	0.01	16.61
Ownership (%)	3.578	64.93	28.47	0.00	90.25
AudRep	3.578	0.84	0.18	0.00	1.00
Tenure (years)	3.597	6.00	0.72	2.00	9.00
AudSize (\$m)	3.597	0.32	0.72	0.07	0.83

AQ: Audit quality, SD: Standard deviation

Table 3: Correlation matrix

Variables	Ethics	ROA	FSize	Ownership	AudRep	Tenure	AudSize	VIF
Ethics	1.000							3.72
ROA	0.073***	1.000						1.83
FSize	−0.093***	0.028	1.000					2.07
Ownership	0.582***	0.068***	−0.091***	1.000				5.91
AudRep	0.798***	0.034*	−0.075***	0.377***	1.000			2.52
Tenure	0.766***	0.037*	−0.0801**	0.632	0.624***	1.000		4.91
AudSize	0.134***	−0.017	−0.0138	0.4122***	0.367**	0.274***	1.000	1.88

*, **, *** $p < 0.05$ and $p < 0.01$, and $p < 0.001$ respectively

Multicollinearity results can be observed in Table 3, which presents the correlation matrix of the variables used in the research on the impact of ethics on audit quality in SSA. One notable observation is the high correlation coefficient between the variable "Ethics" and "AudRep" with a coefficient of 0.798 (P<0.001), indicating a strong positive correlation. This suggests that there may be multicollinearity between these variables, which could potentially lead to inflated standard errors and unstable estimates in the regression model. However, the variance inflation factor results suggest that multicollinearity may not exist. Similarly, the correlations among the other variables show moderate correlations, which suggests that multicollinearity may not exist among the independent variables.

Table 4: Regression results

Variables	RE	FE
Ethics	−5.2308 (−0.11)	−2.5509 (−0.49)
Tenure	5.0509* (1.76)	−3.0609 (−0.82)
AudSize	1.1209 (0.26)	2.1010** (1.99)
AudRep	−0.03312** (−2.27)	−0.05019 ** (−2.29)
FSize	8.3913*** (60.15)	8.9614*** (56.52)
ROA	−0.3261 (−0.08)	1.3271 (0.03)
Ownership	7.9809** (1.98)	1.771*** (3.88)
Constant	−7.1910*** (−3.63)	−8.9810*** (−3.90)
R-squared (R^2)	0.8723	0.8981
F-stats	126.027	152.425
Prob. > F-stats	0.000	0.000
Prob. of Hausman Test	0.0429	0.0429
Durbin-Watson stats.	1.947	1.0633

5.2. Regression Results

Table 4 presents the regression results on the impact of ethical values on firms' audit quality in SSA. The regression results are presented using the random and fixed effect estimation models. The result of the Hausman test is significant; hence the results were analysed and discussed according to the fixed effect estimation model.

The regression results presented in Table 4 investigate the impact of ethics on the audit quality of firms in SSA. The results reveal that ethics has a negative and insignificant coefficient of −2.5509 with a P>0.05, indicating that the ethical values of firms in SSA have a negative impact on audit quality. This finding is contrary to the expectation that ethical values promote high-quality audits. The negative relationship between ethics and audit quality in SSA is surprising and raises some interesting implications. It is possible that firms with higher ethical values may focus more on ethical behaviour and less on the technical aspects of auditing, leading to lower audit quality. Another possible explanation for this result is that firms with lower ethical values may be more likely to engage in fraudulent activities, which can be more difficult to detect and result in lower audit quality. The result is also possible because there could be weak enforcement of ethical standards in SSA, leading to a lack of accountability among auditors and firms. Additionally, sub-Saharan African countries may have weaker regulatory frameworks and lower levels of corporate governance, which could lead to inadequate oversight and enforcement of ethical practices in firms, resulting in lower audit quality. This is consistent with prior research that has highlighted the challenges of weak regulatory environments in SSA (Hassan et al., 2020).

Another possible explanation for the non-significant relationship between ethics and audit quality could be cultural differences in perceptions of ethical values. Different cultural norms and values in SSA may shape the understanding and practice of ethics in business and auditing differently compared to other regions. For example, what may be considered unethical in one culture may be seen as acceptable or even normal in another culture. This cultural context could influence the interpretation and implementation of ethical values in firms, leading to variations in the impact on audit quality. This finding does not align with previous studies that have shown a positive relationship between ethical values and audit quality (e.g., Abbasi et al., 2020; Zaman et al., 2011).

The regression results further show that auditor tenure has a positive and insignificant coefficient of 3.061, implying that an increase in auditor tenure is associated with an improvement in audit quality. The positive relationship between tenure and audit quality is consistent with previous research that suggests that longer auditor tenure is associated with improved audit quality (Jadiyappa et al., 2021). This view is reasonable because longer tenure allows auditors to better understand the client's business and processes, which can improve the quality of their audits. This result also contradicts the findings of Bala (2022), who found that audit tenure significantly negatively impacts audit quality in Nigeria.

Audit size also has a significant positive coefficient of 2.1010 with a P<0.05. This result suggests that larger audit fees are associated with higher audit quality. The positive relationship between audit size and audit quality is consistent with previous research that suggests that larger audit fees are associated with higher audit quality (Lestari et al., 2022; Salterio, 2022). This result is because larger audit fees provide auditors with more resources to perform a more comprehensive audit, which can result in higher audit quality.

The result further demonstrates that auditor reputation has a significant negative coefficient of −0.0501, indicating that firms audited by non-Big 4 auditors have lower audit quality. This result shows that auditor reputation in SSA has a negative impact on audit quality. This finding is surprising, as previous research has shown that Big 4 auditors positively impact audit quality (e.g., Debnath et al., 2022; Blum et al. (2022); Tonekaboni et al. (2022). This is because the Big 4 auditors have more resources and expertise than non-Big 4 auditors, which can lead to higher audit quality. One possible reason for this result could be the lack of competition in the audit market in SSA, leading to a lack of incentives for auditors to maintain their reputations. However, the result confirms the findings of Faizah et al. (2022) and (Izza, 2019) who found that smaller audit firms tend to provide higher-quality audits for private firms in the UK.

Firm size also has a statistically significant positive coefficient of 8.9614, suggesting that larger firms have higher audit quality. The positive relationship between firm size and audit quality is consistent with the expectation that larger firms have more complex operations, which require more comprehensive audits. This finding is consistent with previous research that has shown that larger firms have better audit quality (e.g., Hussin et al., 2022). The results also demonstrate that ROA has a positive and insignificant coefficient (1.3271), suggesting that higher profitability leads to better audit quality. Finally, ownership structure has a significant positive coefficient of 1.771, indicating that a higher percentage of institutional shareholders is associated with higher audit quality. The positive relationship between ownership structure and audit quality suggests that institutional shareholders may exert pressure on firms to maintain high audit quality to protect their investments.

The results of this study have several implications for policymakers, auditors, and firms. First, the negative impact of ethical values on audit quality highlights the need for stronger enforcement of ethical standards in SSA. This suggests that policymakers should invest in training programs and regulatory mechanisms to ensure that auditors and firms adhere to ethical principles. Auditors should also focus on maintaining their independence and objectivity, particularly when auditing firms with lower ethical values. The findings also call for the need to strengthen regulatory frameworks and enforcement mechanisms for ethical standards in SSA countries. Policymakers should prioritise reforms that promote transparency, accountability, and good corporate governance practices to enhance the effectiveness of ethical standards in firms and ultimately improve audit quality.

On the other hand, the finding suggests that focusing solely on the ethical values of firms may not be sufficient to improve audit quality in the region. To ensure the effective implementation of ethical standards, efforts to enhance audit quality should consider broader contextual factors, such as regulatory frameworks, corporate governance mechanisms, and cultural norms. Similarly, the positive impact of tenure and audit fees on audit quality suggests that auditors should be incentivised to maintain long-term relationships with clients and to charge appropriate fees for their services. On the other hand, firms should be willing to pay higher fees for better audit quality. In addition, the negative impact of auditor reputation on audit quality suggests that the audit market in SSA needs to be more competitive; hence policymakers should promote competition by allowing new tax incentives for the services of non-Big 4 audit firms.

6. CONCLUSION

The quality of audits is critical in ensuring the integrity of financial reporting and maintaining investor confidence. The importance of audit quality cannot be overstated, especially in developing economies such as SSA, where there are challenges related to weak governance structures, inadequate regulatory frameworks, and limited resources. The lack of audit quality has been linked to financial scandals, corporate failures, and economic instability in the region. Consequently, this study examined the impact of ethics on the audit quality of firms in SSA. The study population consisted of firms operating in SSA, with 323 firms selected from 12 SSA countries from 2012 to 2021. The study used panel data analysis and regression analysis to examine the impact of ethical values on audit quality among firms in SSA. The study found a negative and statistically significant relationship between ethical values and audit quality, indicating that firms with higher ethical values tend to have lower audit quality. The study also found that auditor tenure positively impacts audit quality, suggesting that auditors with longer tenure tend to provide higher-quality audits.

In conclusion, the fixed effect results in Table 4 do not show a statistically significant relationship between ethics and audit quality in SSA. Possible reasons for this result could be weak regulatory frameworks, cultural differences, and inadequate enforcement mechanisms for ethical standards in the region. The findings highlight the need for policymakers, professional accounting bodies, firms, and auditors to consider broader contextual factors and collaborate to improve audit quality. Secondly, auditors and audit firms should prioritise ethical considerations in their practices, including ethical decision-making, communication, and behaviour. Future research should investigate the reasons behind the negative relationship between ethics and audit quality observed in this study.

7. ACKNOWLEDGMENT

We would like to thank the anonymous referees for the helpful and thoughtful suggestions, recommendations, and comments that have improved our paper in a substantial way. Moreover, we would like to express our gratitude to the Durban University of Technology for providing excellent research support and facilities.

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