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Research Paper

Audit Quality and Accounting Going Concern of Listed Financially Distressed and Financially Healthy Manufacturing Companies in Nigeria A Comparative Study

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ABSTRACT
This study examined the effect of audit quality on accounting going concern of listed financially distressed and financially healthy manufacturing companies in Nigeria from 2012 to 2022. The study employed ex-post facto research design. The secondary data for the 12 financially distressed and 12 financially healthy listed manufacturing companies sampled were sourced from the Nigerian Exchange Group, facts books and related companies' Annual Financial Reports for the periods covered in the study. In determining how audit quality affects the accounting going concern of listed financially distressed and financially healthy manufacturing companies in Nigeria using the Altman Z-score approach as a yardstick for comparison. Particularly, pre-regression analysis which included descriptive statistics analysis, correlation analysis, and normality of data analysis was conducted. Panel regression analysis (fixed and random effect) was conducted and diagnosed, to find out if the models violated the basic Gauss Markov Theorem and assumptions. The P-values of the parameters were used to test the financially distressed and healthy manufacturing companies' hypotheses respectively. Notably, the outcome revealed that: Audit tenure and audit delay had no significant effect on accounting going concern of manufacturing firms in Nigeria regardless of the financial status; Audit fee had a significant negative effect on accounting going concern for financially distressed manufacturing firms but insignificant for financially healthy manufacturing firms in Nigeria. The study concluded that the effect of audit quality on accounting going concern should be juxtaposed with the financial status (distressed/healthy) of the firm, to obtain a more robust and unique solution to problems faced by listed manufacturing firms in Nigeria. The study recommended among others that the smaller audit firms should improve their level of expertise (professionalism) and reputation (better image), thereby enhancing investors' confidence and attract stakeholders; policymakers should consider implementing fee structuring mechanisms that alleviate the financial burden on distressed companies aiming at striking a balance between the need for rigorous auditing and the financial constraints faced by distressed firms.

Keywords: *Audit quality, Accounting going concern, Audit fees, Audit tenure, Audit delay, Altman Z-score approach.*

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I. INTRODUCTION

Audit quality is all the possibilities whereby the auditor when auditing the client's financial statements can find violations that occur in the client's accounting system and report them in the financial statements (Putri, 2020). It is crucial in determining the accuracy of accounting going concern assessments. Going concern, also called continuity assumption (Egolum & Ezeh, 2021) is very influential for all users of financial statements to make the right decisions in investing, because when an investor intends an investment, he needs to know the financial condition of the company, especially concerning the survival of the firm (Hany & Mukhlasin, 2003; Egolum *et al*, 2021). Problems arise when errors are made by the auditors' opinion regarding the company's going concern opinion. The major problem with this is the issue of self-fulfilling prophecy which states that if the auditor gives going concern opinion, the company would be quickly bankrupt because many investors and creditors may cancel attractive investment funds, this assumption is vital for the valuation of assets, as it means that assets can be valued upon their business value when in use rather than their termination value, which is in general a lot lower. A firm is expected to continue to stay in business in the foreseeable future, the auditor can give an adverse opinion in the form of a going-concern opinion (Venuti, 2007; Egolum *et al*, 2021).

A company is said to be financially healthy, if it encompasses the ability to generate revenue, have

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sufficient cash flow, financial competence and return more money to investors. The condition in which a company experiences financial difficulties and is threatened with bankruptcy is known as financial distress. Companies that experience bankruptcy will begin with financial distress conditions in the company. However, if the company is experiencing financial distress, it is not certain that it will end in bankruptcy (Andriyani & Dyatmiko, 2021). Financial distress is a condition in which a company experiences financial difficulties by experiencing a stage of decreasing the company's ability to pay debts to creditors when they fall due (Platt, 2002; Andriyani *et al* 2021). Financial distress shows that the company has no ability to cover current obligations, for example, unpaid debt. Characteristics such as size, maturity, industry, and complexity are found to be related to financial distress (Lu & Ma, 2016). Janes (2005) finds that poor profitability and high financial leverage result in financial distress.

The deluge of audit failure in the world (Nigeria inclusive), has brought great disappointment to the users of financial reports making audit quality the subject of focus in this study. From the local front, it is well known that over 90 listed companies have been delisted from the floor of the Nigerian Exchange Group between the years 2002 and 2017 (Iliemena & Chibuzor, 2019), reasons due to some companies seeking to be private, some being declared bankrupt, merging and companies ceasing operation. Nigeria's giant industries are silently disappearing and investors who have made plans to set up local manufacturing plants are making U-turns (Anudu, 2022). Uchenna and Okelue (2012), opined that the continuous financial failure of manufacturing firms, was not a good omen for the country as it stifles the availability of goods and services through production, unemployment, and other macroeconomic objectives in the country

The collapse of 83 companies listed on the Nigerian Exchange Group, from which 65 are manufacturing companies in the space of 11 years, i.e between the years 2012-2022 (NGX Group, 2023) is worrisome and thus questions the quality of the audit performed by the auditors on those financial statements. Although, within the Nigeria audit scope, studies have been done to explore the effect of audit quality on accounting going concern, only a few research have analyzed this issue from the financially distressed firm's perspective, thereby combining the attributes and characteristics of financially distressed companies with the characteristics of financially healthy companies using Altman Z financial distress model classification. In this study, we strongly argue that the audit quality and structure of financially distressed companies are different from those of financially healthy companies and hence should be accorded different treatments. Since the effectiveness and characteristics of audit quality may vary depending on a firm's financial health. Numerous studies have attempted to examine the nexus between audit quality and accounting going concern in the Nigerian audit market. In most of these existing studies such as; Ozegbe and Jeroh, (2022), having financial reports with high audit quality is of immense benefit in several ways. For instance, when the risk of misstatements is low, it boosts confidence in capital markets and lowers the finance cost for businesses. Audit quality plays an important role in maintaining an efficient market environment; an independent quality audit underpins confidence in the credibility and integrity of financial statements which is essential for well-functioning markets and enhanced financial performance, (Amahalu & Obi 2020). Rafiu, Titilayo and Eghosa (2017), revealed that going concern could be a signal of financial distress as it reveals the status and capability of banks to continue in operation. In connection with these and associated with the function of financial statements themselves, the Altman-Z Score Model which serves to predict the survival of a company was adopted by the researcher to determine whether the financial health of the firm is determined by audit quality. Based on the explanation above, the researcher is interested in conducting a comparative study on "Audit Quality and Accounting Going Concern of Listed Financially Distressed and Financially Healthy Manufacturing Companies in Nigeria".

1.1 Objectives of the Study

The broad objective of the study was to determine how audit quality affected the accounting going concern of listed financially distressed and financially healthy manufacturing companies in Nigeria using the Altman-Z score model as a yardstick for comparison. The specific objectives of the study were to determine:

i. The effect of audit tenure on the accounting going concern of financially distressed and healthy manufacturing companies using the Altman Z score approach.

ii. The effect of audit delay on the accounting going concern of financially distressed and healthy manufacturing companies using the Altman Z score approach.

iii. The impact of audit fees on the accounting going concern of financially distressed and healthy manufacturing companies using the Altman Z score approach.

1.3 Research Hypotheses

To answer the stated research questions and achieve the objective of the research, the following null hypotheses were tested:

i. H0: There is no significant difference between the effect of audit tenure on accounting going concern

of financially distressed and healthy manufacturing companies in Nigeria.

ii. H0: There is no significant difference between the effect of audit delay on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

iii. H0: There is no significant difference between the effect of audit fees on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

1.4 Scope of the Study

The main focus of this study was to determine if audit quality proxied by audit tenure, audit delay and audit fees influences the going concern status of manufacturing companies (financially distressed and healthy companies) listed on the Nigerian Exchange Group for the period 2012 - 2022, using Altman-Z Score Approach. The choice of 2012 as the base year was first to account for the period when the Nigerian Federal Executive Council (FEC) approved January 1, 2012, as the effective date for the convergence of accounting standards in Nigeria with International Financial Reporting Standards (IFRS). Further, the period scope covered the time when the Nigerian economy experienced its first recession in over two decades (Aliyu, 2019; Afimia, 2017), precisely in 2016 which was attributed to negative oil prices and oil production shocks which spilt over to the non-oil sectors including the listed manufacturing companies.

II. REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Audit Quality

Good audit quality will produce information that is very useful for users of financial statements in terms of decision-making. Therefore, auditors are responsible for providing quality audit services. Auditors who have good audit quality are more likely to issue a going concern audit opinion if their clients experience going concern problems. Januarti (2008), Foroghi and Shahshahani (2012), and Putri (2020) conclude that audit quality affects the acceptance of going concern audit opinion. Audit quality is the capability of an auditor in discovering and reporting any errors in a financial statement, (Amahalu, Okeke & Obi, 2017). Audit quality is the market-estimated joint likelihood that a specific auditor would both detect and disclose a violation in the client's accounting system. The entire quality of the audit exercise is represented by audit quality (Kaoje & Mohammed, 2022). The failure of auditors to discover serious misstatements in financial statements, which raises issues about trustworthiness (Iliemena *et al*, 2019), is one of the primary threats facing investors, necessitating a focus on audit quality.

2.1.2 Accounting Going Concern

Companies prepare their annual financial statements on a going concern basis except when management either intends to liquidate the entity or to cease operations or has no realistic alternative but to do so, (International Federation of Accountants Handbook, 2010 Edition). If a company is not a going concern, this could result in the impairment of the company's assets (to reflect forced sale values) and also an upward adjustment of liabilities due to penalties for early settlement and or breach of loan terms or covenants, (Mwendamo, 2010). The going concern assumption is fundamental in the preparation of a company's financial statements as it impacts the basis upon which the assets and liabilities of a company are recorded, (International Federation of Accountants Handbook, 2005 Edition). Auditing standards require the auditor to obtain sufficient and appropriate audit evidence about the appropriateness of management's use of the going concern assumption in the preparation of a company's financial statements and to conclude whether there is a material uncertainty about the entity's ability to continue as a going concern.

2.1.3 Altman Z Score Model

A numerical measurement used to predict the chances of a business going bankrupt in the next two years. The model was developed by American Finance Professor Edward Altman in 1968 as a measure of the financial stability of companies. The Z-score uses multiple inputs from Corporate Income Statements and Statements of Financial Position to measure the financial status of a company. The inputs which Altman used were twenty-two different financial ratios divided into five categories: Liquidity, Profitability, Leverage, Solvency and Activity (Imade, 2021). The different ratios were combined into a single measure known as Z-Score.

Altman's Z-score formula is written as:

$z_ζ = 1.2A + 1.4B + 3.3C + 0.6D + 1.0E$

Where:

Zeta ($z_ζ$) is the Altman's Z-score

A is the Working Capital/Total Assets ratio B is the Retained Earnings/Total Assets ratio

C is the Earnings Before Interest and Tax/Total Assets ratio D is the Market Value of Equity/Total Assets ratio E is the Total Sales/Total Assets ratio.

The Z-score model is based on five key financial ratios, (Ika & Nadya, 2017):

2.1.3.1 Working capital / total assets:

Working capital/total asset is used to measure the liquidity of the company's assets relative to total capitalization or to measure the company's ability to meet short-term obligations. Indicators that can be used to detect problems at the level of liquidity of the company are the internal indicators such as insufficiency of cash, debt swells trade, utilization of capital declines, additional debt is uncontrollable, and some other indicators.

2.1.3.2 Retained earnings / total assets:

Retained earnings/total asset is used to measure the cumulative profitability. This ratio measures the accumulated profits during the company's operations. The age of companies affects these ratios because the longer the company operates the more it accelerates the accumulation of retained earnings. This resulted in the company being still relatively new in general and showing the result of a low ratio, except for a very large profit in its early years.

2.1.3.3 Earnings before interest and taxes / total assets:

Earnings before interest and taxes/total assets are used to measure the actual productivity of the assets of the company. The ratio measures the company's ability to generate income from the assets that were used. This ratio is the biggest contributor to the model. Some of the indicators that we can use in detecting a problem with the ability of the profitability of these companies are receivables increased, the loss continuously in several quarters, increased inventory, sales declined, and others.

2.1.3.4 Market capitalization/book value of debt:

Market capitalization/book value of debt is used to measure how much of the company's assets may be impaired before the debt amount is greater than its assets, and the company becomes insolvent. Capital in question is the combined market value of the ordinary capital and preference shares, while debt includes current liabilities and long-term debt.

2.1.3.5 Sales / total assets:

Sales/total assets is used to measure the ability of management to face competitive conditions. The ratio measures the ability of management to use assets to generate sales.

2.1.4 Audit Delay

Audit delay measures the time between the end of a firm's fiscal year and the date the auditor signs the report. Audit delay is also referred to as audit lag or audit report lag in other literature. Further Richard and Kortu (2020), define audit delay as the number of days between the date of the financial statements and the date of the auditor's report. Audit delay has an impact on the availability of public financial statements which represent publicly available information regarding a public entity's financial position and performance and, therefore, they constitute an accountability medium (Taylor & Rosair, 2000) and a means for decision-making by several interested users such as donors and other international financial institutions like the World Bank, and International Monetary Fund (IMF), (IFAC, 2007). Henceforth, their timely publication is considered vital and, therefore, the regulation mandates their timely issuance. Increased audit delay likely signals bad news to investors as well as extends the audit time, increasing audit fees. Therefore, changes to the audit process specifically aimed at streamlining audit procedures should lead to improvements in audit delay.

2.1.5 Audit Tenure

Long auditor-client ties can lead to auditor complacency about management actions involving the firm's financial statements, which is a significant concern in the auditor's conflict of interest. Following this view, the mandatory rotation of the external auditor has long been suggested as a means to improve auditor independence. With this aim, the Sarbanes-Oxley Act required a study about the potential effects of imposing the mandatory rotation of auditors, the regulators established that the lead audit partner and the concurring partner should not perform audit services for the same client for more than five consecutive fiscal years. In addition, they also require a minimum five-year time-out period before a partner may return to audit a client.

2.1.6 Audit Fees

The value of an audit lies in the perception coming from users of audited statements on the auditor's ability to detect errors or breaches in the accounting system and to resist client pressures to disclose such discoveries (DeAngelo, 1981). The calculation of fees is a sensitive issue, where professional ethics and the interest of auditing did not allow the prices budgeted to be too high or too low. Maira and Franco (2001) suggest that the best way for clients to charge fees might be using a fixed and invariable value. Nevertheless, this procedure might lead to very high fees, damaging the client, or very low, damaging the auditor, keeping in mind that prices are budgeted by taking into account the number of hours or days required to conduct the audit. Audit

fees may influence audit quality and accounting going concern. One of the major threats to auditor independence is the fees perceived by the auditor for audit (Egolum *et al,* 2021).

Auditors have economic incentives that threaten their independence as well as market-based institutional incentives to act independently. Market-based incentives that relate to reputation and litigation costs are well documented in the literature (DeFond, Raghunandan & Subramanyam 2002). In view of William (2015), economic incentives to issue an audit opinion unmodified for going concern uncertainties relate to the monetary benefits from client services provided. A crucial assumption is that auditors are inclined to sacrifice their independence and be less objective in their audit reporting when the magnitude of their service fees creates economic bonding with the client (Simunic 1984).

2.1.9 Financially Distressed and Financially Healthy Companies

The condition in which a company experiences financial difficulties and is threatened with bankruptcy is known as financial distress. Companies that experience bankruptcy will begin with financial distress conditions in the company. However, if the company is experiencing financial distress, it is not certain that it will end in bankruptcy (Andriyani *et al,* 2021). Financial distress is a condition in which a company experiences financial difficulties by experiencing a stage of decreasing the company's ability to pay debts to creditors when they fall due (Platt, 2002; Andriyani *et al* 2021). Financial distress shows that the company has no ability to cover current obligations, for example, unpaid debts. Janes (2005) finds that poor profitability and high financial leverage result in financial distress.

A company is said to be financially healthy, if it encompasses the ability to generate revenue, have sufficient cash flow, financial competence and return more money to investors.

2.2 Theoretical Framework

This study anchored on the audit quality theory and principal-agent theory propounded by Watkins, Hillison and Morecroft (2004), and Jensen (1970) as we find it keenly related to our study.

2.2.1 Audit Quality Theory

Audit quality and perceptions of audit quality have been considered as two different concepts by Watkins *et al*. (2004). In order to keep the distinction between these two concepts Watkins *et al.* (2004) use factors like "monitoring strength" and "reputation" to refer to the actual and perceived audit quality. The monitoring strength helps in influencing and maintaining the quality of the information in the financial statements, whereas the reputation of auditors can influence the credibility perceived by the stakeholders regarding the auditors. The auditor's monitoring strength can be measured via the components of audit quality which are the auditors' degree of competence and independence.

The same degree of competence and independence of auditors measured as components of audit quality from the perception of the market then would refer to auditor reputation. Auditor reputation is difficult to observe or measure since they are based on the users' beliefs. The audit quality framework presented by Watkins *et al.* (2004), captures the relationship between audit quality components, audit quality products, and the influences over the information in financial statements. The two products of audit quality which are influenced by the components of audit quality are information credibility and information quality. Variations in the auditor monitoring strength can be reflected in the financial reports in the form of trueness in the economic circumstances of the client firm. Thus, auditor monitoring strength in a way reduces the differences between the economic circumstances reported by the client and the true but unobservable economic circumstances of the client firm. The credibility of information or the reliability of information is impacted by the perceived reputation of the auditor. Auditor reputation is considered to be consistent over the period of audit engagement while audit monitoring strength may vary over the period of audit engagement. The relationship between audit quality and either demand drivers (client risk strategies and agency conflicts) or supply drivers (audit fees and auditor risk management strategies) has been presented in the framework of audit quality presented by Watkins *et al*. (2004). Watkins *et al.* (2004) have summarized the client risk strategies which is one of the demand drivers of audit quality, that high-quality information is signaled by the companies by demanding auditors with highly-acclaimed brand-name. But this may not be the case for risky clients, for whom both the demand and the ability to signal high-quality information are being mitigated by the pricing of the brand name audits.

2.2.2 Principal-Agent Theory

Jensen and Meckling (1976), Susanto (2009), Ika and Nadya (2017), and Putri (2020) described agency relations as a contract under one or more principals that involve agents to carry out some services for them by delegating decision-making authority to agents. The agent is authorized by the principal to carry out the company's operational activities so that the agent has more information than the principal. One of the types of information held by managers is the company's financial information, the disclosure of which is based on the

company's financialstatements.

Brigham and Houston (2001) state that managers are given the power by company owners, namely shareholders, to make decisions, which creates a potential conflict of interest known as agency theory. An agency relationship occurs when one or more individuals, known as the principal, hire another individual or organization, known as an agent, to perform several services and delegate the authority to make decisions to that agent. In relation to agency theory with the acceptance of going concern audit opinion, the agent is in charge of running the company and producing financial reports as a form of management accountability. This financial report will later show the company's financial condition and is used by the principal as a basis for decision-making.

2.3 Empirical Literature Review

Amahalu and Obi (2020), ascertained the effect of audit quality on the financial performance of quoted conglomerates in Nigeria from 2010-2019. Specifically, this study determined the effect of audit committee size, audit committee independence, and audit committee financial expertise on return on assets. An Ex-Post Facto research design was employed. Inferential statistics using the Pearson correlation coefficient and Panel least square regression analysis were applied to test the hypotheses of the study. The results showed that audit committee size, audit committee independence, and audit committee financial expertise have a significant positive effect on return on assets at a 5% level of significance respectively.

Andriyani and Dyatmiko (2021), aimed to examine the effect of audit quality, financial distress, and audit lag, going concern audit opinions on transportation sector companies listed on the Indonesia Stock Exchange (IDX) in 2016-2020. The type of data used was secondary data in the form of audited financial reports and independent auditor reports obtained from the IDX official website. The sample in this study amounted to 70 samples determined by purposive sampling method. The analysis used to test the effect between the variables in the study is logistic regression analysis. The results showed that audit quality had no significant effect on going-concern audit opinion, financial distress had a significant effect on going concern audit opinion, audit lag had no significant effect on going-concern audit opinion. Based on the results of the study, financial distress can be used as material for auditors' consideration in providing a going concern audit opinion.

Aswar, Akbar, and Wiguna (2021) presented empirical evidence on the relationship between independence, competence, motivation, and audit quality. It will also determine the moderating effect of time budget pressure on the relationship between factors and audit quality. Data from this study were collected through a Google form, in which 57 questionnaires were sent to internal auditors of government within the Principal Inspectorate of Indonesia's Supreme Audit Institution for at least two years. The study adopted a quantitative approach using purposive sampling. Data were analyzed using Structural Equation Modeling (SEM) with PLS version 3.0. The result findings of this study revealed that competence and motivation have a significantly positive effect on the quality of audits while independence does not. Time budget pressure does not significantly moderate such a relationship.

Averio (2020) determined the factors that affect an auditor's going concern opinion. The study used secondary data obtained from annual reports and independent audit reports published by the Indonesia Stock Exchange. The population of the study included manufacturing firms registered in the Indonesia Stock Exchange from 2015 to 2019. The sample consisted of 33 companies after purposive sampling technique was applied. The data were analyzed using logistic regression performed in statistical analysis software, SPSS 24.0. The results indicate that leverage positively affected the going concern audit opinion, then the audit quality, profitability and liquidity negatively affected going concern audit opinion, whereas firm size and audit lag did not affect the going concern audit opinion.

Chang and Hwang (2020) investigated whether a firm's financial distress is predictable using artificial intelligence techniques and research methods. The authors analyzed whether audit quality is the key factor that affects the occurrence of a company's financial distress in China. Using the binary choice model and life test method, the evidence indicates that the audit quality of the firm is negatively correlated with the probability of the firm's financial distress. The authors concluded that firms with higher audit quality would be more likely to reduce the probability of financial distress.

Egolum and Ezeh, (2021) examined the effect of audit quality on accounting going concern. Specifically, this study explored two key measures of audit quality by making use of a sample of thirty-eight (38) listed manufacturing firms in Nigeria for the period ranging from 2013 to 2018. Audit quality proxies that were considered in this study include; audit fee and audit firm size which represented the independent variables while accounting going concern (dependent variable) is measured in the framework of the Altman Z-score index and firm leverage served as a control variable in the specified model. In this study, the hierarchical regression analysis technique was employed to evaluate the panel data set that was collated from annual financial reports of the sampled manufacturing listed firms. The finding indicated that audit firm size indeed does improve the going concern status of the firm during the period under investigation. This finding translated to

support the view that non-audit services such as audits of employee benefit plans, as well as consultations concerning financial and tax planning provided by big four audit services, help to improve a firm's going concern status.

Imade (2021), examined audit quality and concept of going concern in quoted nonfinancial companies in Nigeria. We employed audit quality proxies which include Audit Firm Size, Audit Tenure, Audit Fee, Joint Audit, and Audit Delay also representing the independent variables and Altman Z scores index (dependent variable) as proxy for accounting going concern. This study employed secondary data obtained from related companies annual reports published by the Nigerian Stock Exchange. The population of this study includes all nonfinancial companies listed on the floor of the Nigerian Stock Exchange market during 10 years ie between 2011 and 2020. The sample after adopting Krejcie and Morgan sample size computation technique consist of 84 companies. The results indicate that audit firm size, audit tenure, and audit fee have statistically significant effect on going concern concept. However, joint audit and audit delay show no statistically significant effect on going concern concept of listed non-financial firms in Nigeria during the period under review.

Karina (2018) analyzed the relationship between the financial conditions of a company and the audit quality of earnings management. Besides that, an analysis of the differences between the company's good and bad financial condition is carried out to know the company's characteristics in their respective financial positions. The study was conducted on companies listed on the Indonesia Stock Exchange from 2011-2015. Research results showed a significant relationship between the financial conditions of a company with earnings management. On the other hand, the audit quality variable is different and significant based on the company's financial condition. The results showed that companies that experience poor financial conditions tend to use non-big4 auditors.

Kaoje and Mohammed (2022) examined the impact of audit quality on the financial performance of quoted Oil and Gas marketing companies in Nigeria. The population comprises of 11 oil and gas companies quoted on the Nigeria Exchange Group Plc. The paper adopted the longitudinal and ex- post facto research designs. Data were gathered from the published annual reports and accounts of the sampled oil and gas companies. The results revealed that audit firm type and auditors' tenure have no significant relationship with the financial performance of the quoted oil and gas marketing companies in Nigeria which is evidenced by a p-value of 0.995 and 0.730 respectively.

Khikmah, Rohman, and Januarti (2020) examined and analyzed the impact of external audit on financial distress in Indonesian manufacturing companies. The samples used include data from manufacturing companies within the period 2014-2017, using purposive sampling method. A total of 128 companies were evaluated using panel data regression analysis, and the results showed an effect of going concern opinion, auditor switching and audit reputation on financial distress, although audit delay had no influence.

Khurshid, Sabir, Tahir and Abrar (2018), examined the role of "corporate governance" in the detection of financial distress. In the study, board size, CEO's duality, board independence, insider's directorship, number of board meetings, audit quality, managerial ownership, financial institutions ownership, and ownership by investment companies are used as proxies of corporate governance. Secondary data were collected from 154 company annual reports for the period between 2009 and 2016. Financial distress was measured using well-known measures i.e Emerging Markets Score (EMS) which is the updated version of Altman's Z Score. The results concluded that board size, insider director's ownership, audit quality, managerial ownership, financial institutions ownership, investment companies' ownership, and profitability of firms play significant negative impact on the likelihood of financial distress, while CEO's duality, board independence, frequency of board meetings, financial constraints, and financial leverage proved positive and significant on the probability of financial distress.

Lu and Ma (2016) empirically examined the relationship between audit quality and financial distress based on Chinese listed firms. The study specifically examined whether high audit quality will reduce the likelihood of financial distress, especially in high-growth firms and government- owned firms. Results from the logistic regression indicated that the quality of external audits has a negative relationship with financial distress. In addition, for high-growth firms, results show that the relationship between audit quality and financial distress is more significant. Finally, the association between audit quality and financial problems is moderated by ownership. The authors concluded that audit quality is negatively associated with financial distress and their relationship is enhanced in growth firms and state-owned firms.

Putri, (2020) examined the factors affecting going concern audit opinions. This study determined the effect of audit quality, the size of the company, the audit opinion the previous year, the ownership of the company, the company's growth, debt default, opinion shopping, bankruptcy prediction, and the factor of the audit committee together against going concern audit opinion on the companies listed in the Indonesia Stock Exchange. In this study, researchers used purposive sampling and obtained a sample size of 141 sample companies listed on the Stock Exchange in the year 2012-2014. The analytical method used is logistic regression. The results of this study indicated the quality of the audit, the size of the company, and managerial

ownership affect the going concern audit opinion while the audit opinion in previous years, institutional ownership, growth, debt default, opinion shopping, bankruptcy prediction, the activity of the audit committee, and membership of audit committees do not affect the going concern audit opinion.

Salleh, Shauri, Samsudin, Deraman, and Khairuddin (2019) analyzed audit reports of financially distressed companies in Malaysia. In this study, companies that fall under financial distress conditions are classified as PN17 companies. Out of the 919 companies listed on Bursa Malaysia, a total of 17 companies have fallen under PN17 as of November 2017, representing 1.85% of the total number of 919 companies listed on the Exchange. The overall analysis of this study showed that more than 50% of the PN17 companies in Malaysia were given an unmodified audit report rather than a modified audit report. Detailed analysis of pre- and post-announcement periods of the PN17 status indicated that most of the PN17 companies received disclaimer opinions and qualified opinions in the post-announcement periods. These modified opinions were mostly issued to PN17 companies in trading /services, industrial product and consumer business sectors.

Sari and Susanto (2018) sought to get empirical evidence about the effect of management turnover, qualified opinion, audit delay and financial distress on auditor switching. This study used 122 listed non-financial companies in the Indonesia Stock Exchange, using a purposive sampling method in the period 2011 to 2015. The data were analyzed using logistic regression analysis. The result of the research showed that management turnover, audit delay, and financial distress have no significant effect on auditor switching. While qualified opinion has a significant influence on auditor switching.

The segmentation of the sample frame into financially healthy and financially distressed manufacturing companies is a unique feature of the study. This approach allowed for a more nuanced analysis, recognizing the diverse financial conditions that companies may experience and providing insights into how audit quality impacts these distinct groups differently.

III. MATERIAL AND METHOD

This study employed an *ex-post facto* research design, the population of the study consisted of all the fifty-nine (59) manufacturing companies listed on the Nigerian Exchange (NGX) Group, as of December 31, 2023. The study drew its sample size through a purposive non-probability sampling technique which takes cognizance of the availability and accessibility of relevant data needed for the study. First, all firms that joined the Nigerian Exchange Group after the year 2012 were removed. This was done to ensure a balanced panel data structure and a homogeneous periodic scope necessary for the data estimation process. Second, all firms lacking complete data needed for the estimation were also deselected. Third, all firms that fall in the grey category were also removed giving room for only firms that fall under the financially distressed (43) and financially healthy (12) listed manufacturing companies. Hence, the final sample size consists of listed manufacturing companies that show strong similarities in reporting structure, availability of information, completeness, and relevance in data points for the period.

Based on the chosen approach of selection, if the Z value of the studied company is smaller than 1.81, then the company is at high risk of bankruptcy, when the Z value is between 1.81 and 2.99 it still has a risk of bankruptcy, when the Z value is above 2.99 the company is predicted to be in a safe condition. The Edward Altman guidelines distribution is shown in Table 3.1.

Table 3.1 Edward Altman Guidelines

SITUATION	Z-SCORE	ZONES	RESULT
1	Below 1.79	Bankruptcy zone	Failure is certain
2	1.8 to 2.9	Healthy zone	May or may not fail
3	Above 3	Too healthy	Will not fail

Source: Imade (2021) From the table 3.1,

1. A firm with Z-Score below 1.8 is in Qualified Audit Opinion Zone.
2. If a firm has a Z-Score between 1.8, and 3, its audit opinion zone is uncertain to predict.
3. Z-Score of above 3 implies that the firm is in Unqualified Audit Zone.

Although there has been much criticism regarding the effectiveness of Z-score models, but Z-score model continues to be used in a variety of business situations from actual bankruptcy to financial distress conditions. It has been applied as a management decision tool and as an analysis tool by auditors to assess clients' ability to continue as going concern (Imade, 2021).

Table 3.2 Sample Size (Complete Financially Distressed Manufacturing Companies)

S/NO	NAME OF COMPANY	LISTING YR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	ALUMINIUM EXTRUSION IND.	1986	1.24	1.62	1.54	1.75	1.01	1.49	1.45	1.41	1.46	1.28	1.33
2	AUSTIN LAZ & COMPANY	2012	0	0.62	0.26	0.3	0.17	0.3	0.2	-0.08	-0.44	-0.12	0.18
3	BERGER PAINTS NIGERIA	1974	1.57	1.6	1.62	1.73	1.03	1.22	1.28	1.26	1.1	1.29	0
4	BETA GLASS COMPANY	1986	1.12	1.22	1.63	1.52	0	1.78	1.64	1.6	1.27	1.55	1.69
5	CADBURY NIG	1976	1.7	0	1.23	1.26	1.02	1.36	1.74	0	1.36	1.32	1.33
6	CHAMPION BREWERIES	1983	-2.26	-1.8	0.05	0.34	0.68	0.81	0.31	0	0.72	1.36	0
7	CHELLARAMS	1977	0	1.71	0	0.67	1.73	1.39	0.88	-0.34	-1.84	-2.88	1.02
8	DANGOTE CEMENT	2010	1.47	1.63	1.24	1.35	0.9	1.25	1.49	1.1	1.22	1.31	1.33
9	DANGOTE SUGAR	2007	0	0	1.78	1.73	1.51	0	0	1.65	1.63	1.21	1.33
10	FIDSON HEALTHCARE	2008	1.2	1.1	0.88	0.72	0.52	1.21	0.95	1.15	1.26	0	0
11	FLOUR MILLS OF NIGERIA	1979	1.61	1.36	1.3	0.99	1.17	1.28	1.7	1.53	1.76	0	0
12	FTN COCOA PROCESSOR	2008	-0.51	-0.39	-0.9	0.01	-0.68	-0.91	-0.4	-0.67	-0.6	-0.18	-0.88
13	GLAXOSMITHKLINE NIG.	1979	0	0	1.57	1.19	1.26	1.45	0	0	1.41	0.71	0
14	GREIF NIG.	1986	0	0	0	1.71	0	0	-1.35	-9.6	0	-0.09	0
15	GUINNESS NIG.	1965	0	1.54	1.31	1.37	0.69	1.11	1.42	1.14	0.26	1.1	1.32
16	HONEYWELL FLOUR MILL	2009	1.15	1	1.25	0.64	0.2	0.65	0.81	0.54	0.56	0.8	0.98
17	IND. & MED. GASES NIG	1979	0	1.57	1.12	0.9	0.85	1.24	1.38	1.06	1.13	1.37	1.66
18	INTERNATIONAL BREWERIES	1995	0.16	1.41	1.51	1.18	1.05	0.98	0.25	-0.34	-0.3	-0.12	-0.25
19	JOHN HOLT	1974	0.18	0.09	0.07	0.07	0.34	0.28	0.53	0.47	0.31	0.12	0.17
20	LAFARGE CEMENT WAPCO NIG	1979	1.23	1.47	1.3	0.92	0.25	0.09	0.44	0.7	0.79	1.16	1.49
21	LIVESTOCK FEEDS	1978	0	0	0	0	0	0	0	1.3	0	0	0
22	MAY & BAKER NIG	1994	0.97	1.03	1.22	1.24	1.47	0	1.62	1.49	1.51	1.51	1.74
23	MCNICHOLS CONSOLIDATED	2009	0	0	0	0	0	0	1.72	1.58	1.63	1.72	0
24	MEYER PLC	1979	0.59	0.8	0.56	0.68	-0.15	-0.58	0.68	0.47	0	1.11	0
25	MORRISON INDUSTRIES	1978	0.91	0.77	-0.46	-0.38	-0.9	-1.56	-1.31	-1.18	-1.52	-1.55	-1.62
26	MULTIVERSE	2008	0.13	-0.35	-0.83	-0.66	-0.91	-0.75	-1.13	-0.85	-1.19	-0.68	-0.66
27	NASCON ALLIED	1992	0	0	0	0	1.55	0	0	1.07	0.98	1.35	0
28	NEIMETH INT. PHARM	1979	1.54	1.64	1.51	0.6	1.47	0.21	1.77	1.71	1.24	1.35	1.36
29	NIGERIA BREWERIES	1973	0	0	1.35	1.26	1.21	1.3	1.12	1	0.68	0.8	0
30	NIGERIAN ENAMELWARE	1979	1.69	1.77	1.31	0.85	1.11	0.95	0.83	0.2	0.81	-0.67	-0.25
31	NIGERIAN NORTHERN FLOUR	1978	0	0	0	0	0.2	0.05	0.74	1.19	1.28	1.33	0
32	OKOMU OIL PALM	1991	1.11	0.62	0.56	1.23	0	0	0	1.4	1.37	1.78	0
33	PHARMA DEKO	1979	1.24	-0.23	0.48	0	0.09	0.82	-0.1	-0.46	0.14	-0.27	-0.27
34	PREMIER PAINTS	1999	-0.08	0	1.29	-0.23	0.01	-1.18	-1.75	-1.76	-2.3	-1.21	-1.66

35	PRESCO	2002	1.06	0.58	0.69	0.53	0	1.08	0.78	0.65	0.82	1.03	1.69
36	PZ CUSSONS	1974	0	0	0	0	1.48	1.37	1.3	1.33	0.58	1.31	1.35
37	SCOA NIGERIA	1977	0	1.31	0.99	0.15	-0.06	-0.51	0.32	0.32	0.42	0.76	0.54
38	THOMAS WYATT	1978	0	-0.51	-0.59	-0.54	-1.5	-1.38	-0.99	-0.01	-0.65	-0.41	-0.25
39	TRANSCORP NIG	2006	1.56	0	1.6	0.52	0.27	0.54	0.67	0.53	0.44	0.14	0.89
40	TRIPPLE GEE & COMPANY	1991	0.6	0.84	0.79	0.88	0.84	0.7	0.88	0.91	1.15	1.27	0
41	UAC OF NIGERIA	1974	1.1	1.28	1.25	0.98	1.01	1.03	0.71	1.28	1.49	1.42	1.47
42	UNILEVER NIGERIA	1973	0	0	1.29	1.21	1.13	1.76	1.66	0.59	0.93	1.23	1.33
43	VITAFOAM NIGERIA	1978	0	0	0	1.62	1.2	1.58	0	0	0	0	0

Source: Author's computation, 2023

Table 3.3 Sample Size (Financially Healthy Manufacturing Companies)

S/NO	**NAME OF COMPANY**	**LISTING YR**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
1	CHAMPION BREWERIES	1983	0	0	0	0	0	0	0	6.37	0	0	3.11
2	CHEMICAL & ALLIED PAINT	1978	4.58	5.31	5.93	5.65	3.83	3.67	3.46	3.17	0	0	3.55
3	CUTIX	1987	0	3.18	0	0	0	3.17	3.18	3.44	0	0	3.11
4	FLOUR MILL OF NIGERIA	1979	0	0	0	0	0	0	0	0	0	0	3.11
5	GREIF NIGERIA	1986	0	0	0	0	0	0	0	0	6.12	0	5.21
6	LIVESTOCK FEEDS	1978	3.37	0	0	0	0	0	0	0	0	0	3.11
7	MCNICHOLIS CONSOLIDATION	2009	0	0	0	3.21	0	0	0	0	0	0	3.33
8	MEYER PLC	1979	0	0	0	0	0	0	0	0	3.12	0	3.66
9	NASCON ALLIED	1992	3.28	0	0	0	0	0	0	0	0	0	3.1
10	NESTLE NIGERIA	1979	0	0	0	0	0	3.34	3.21	0	0	0	3.36
11	NIGERIAN NORTHERN FLOUR	1978	4.42	4.02	4.46	0	0	0	0	0	0	0	0
12	VITAFOAM NIGERIA	1978	0	0	0	0	0	0	0	3.19	0	0	3.12

Source: Author's computation, 2023

Table 3.4 Sample Size (Selected Financially Distressed Manufacturing Companies)

S/NO	**NAME OF COMPANY**	**LISTING YR**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
1	ALUMINIUM EXTRUSION IND.	1986	1.24	1.62	1.54	1.75	1.01	1.49	1.45	1.41	1.46	1.28	1.33
2	DANGOTE CEMENT	2010	1.47	1.63	1.24	1.35	0.9	1.25	1.49	1.1	1.22	1.31	1.33
3	FTN COCOA PROCESSOR	2008	-0.51	-0.39	-0.9	0.01	-0.68	-0.91	-0.4	-0.67	-0.6	-0.18	-0.88
4	HONEYWELL FLOUR MILL	2009	1.15	1	1.25	0.64	0.2	0.65	0.81	0.54	0.56	0.8	0.98
5	INTERNATIONAL BREWERIES	1995	0.16	1.41	1.51	1.18	1.05	0.98	0.25	-0.34	-0.3	-0.12	-0.25
6	JOHN HOLT	1974	0.18	0.09	0.07	0.07	0.34	0.28	0.53	0.47	0.31	0.12	0.17
7	LAFARGE CEMENT WAPCO NIG	1979	1.23	1.47	1.3	0.92	0.25	0.09	0.44	0.7	0.79	1.16	1.49
8	MORRISON INDUSTRIES	1978	0.91	0.77	-0.46	-0.38	-0.9	-1.56	-1.31	-1.18	-1.52	-1.55	-1.62
9	MULTIVERSE	2008	0.13	-0.35	-0.83	-0.66	-0.91	-0.75	-1.13	-0.85	-1.19	-0.68	-0.66

10	NEIMETH INT. PHARM	1979	1.54	1.64	1.51	0.6	1.47	0.21	1.77	1.71	1.24	1.35	1.36
11	NIGERIAN ENAMELWARE	1979	1.69	1.77	1.31	0.85	1.11	0.95	0.83	0.2	0.81	-0.67	-0.25
12	UAC OF NIGERIA	1974	1.1	1.28	1.25	0.98	1.01	1.03	0.71	1.28	1.49	1.42	1.47

Source: Author's computation, 2023

From the computation, the complete financially distressed manufacturing companies were 43 (see Table 3.2) and the financially healthy manufacturing companies were 12 (see Table 3.3). The researcher further selected 12 financially distressed manufacturing companies (see Table 3.4) from the complete financially distressed manufacturing companies (see Table 3.2). This was to ensure uniformity of mean and common basis of comparison. The criteria for selection include:

1. All manufacturing companies that fall within the financially distressed and grey category were further deselected.
2. All manufacturing companies that fall within the financially distressed and healthy category were also deselected.

Thus, the data-producing samples are presented in Tables 3.3 and 3.4 respectively.

The model for this study was adapted from the study of Imade, (2021) but modified to suit the hypotheses of this study which centred on the effect of audit quality on the accounting going concern of listed manufacturing firms in Nigeria. The functional form is stated as.

Going Concern = f (Audit Delay, Audit Tenure, Audit Fees) (1)

This can be re-written in explicit form as:

ZSCORE = $\pi_0 + \pi_1$ ATEN + π_2 AFEE + π_3 ADLAY + π_4 FLEV (2)

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fdz-score$_{it}$ = $\pi_0 + \pi_1 ATEN_{it} + \pi_2 AFEE_{it} + \pi_3 ADLAY_{it} + \pi_4 FLEV_{it} + \sum_t$ (3)

Accounting Going Concern Econometric Model Financially Healthy Manufacturing Companies

fhz-score$_{it}$ = $\pi_0 + \pi_1 ATEN_{it} + \pi_2 AFEE_{it} + \pi_3 ADLAY_{it} + \pi_4 FLEV_{it} + \sum_t$ (4)

Where;

fdz-score = Financially Distressed Altman Z-score fhz-score = Financially Healthy Altman Z-score ATEN = Audit Tenure

AFEE = Audit Fees ADLAY= Audit Delay **Control Variables**

FLEV = Financial Leverage

it = (i = no of cross section and t = time periods)

$\sum$ = Model Error Term Decision rule:

Accept Alternate hypothesis and reject Null hypothesis, if P-value <0.05 Accept Null hypothesis and reject Alternate hypothesis, if P-value >0.05

IV. RESULTS AND DISCUSSIONS

In this study, descriptive statistics, correlation analysis, tests for normality of data, and panel regression were conducted to identify the possible effect of audit quality on accounting going concern for listed financially distressed and financially healthy manufacturing companies in Nigeria. Moreso, panel regression post estimation test such as test for multi-collinearity, and test for possible heteroscedasticity were conducted. The descriptive statistics in tables 4.1a and 4.1b provide some insight into the nature of the selected listed manufacturing companies used in this study. The tables 4.1a and 4.1b show the mean, maximum, minimum, and standard deviation for each of the variables of interest.

Table 4.1a Descriptive Analysis Result
Financially Distressed Manufacturing Companies

Variable	Mean	Std. Dev.	Min	Max
Zscore	.5278788	.9110702	-1.62	1.27
aten	.780303	.4156186	0	1
adlay	121.7879	85.16477	26	471
afee	3.974697	.5422746	2.3	5.26
flev	60.12462	22.3987	15.07	117.36

Source: Author's Computation, 2023

Table 4.1a described the basic statistics of the variables employed in this study with respect to observations for listed financially distressed manufacturing companies (based on Altman Z Score Categorization) in Nigeria during the 2012 to 2022 period. The basic statistics of the variables that have been described include the mean values, the standard deviation values, the minimum and the maximum values. For the variable of audit tenure, the descriptive statistics table reveals that about 78% of the observations that fall under the financially distressed manufacturing firms adhered to the provision of the Security and Exchange Commission as regards auditors' tenure. The provision as set out by the commission requires three (3) years for the completion of an external audit tenure after which a change should be made. This outcome can be said to be impressive as it shows that only about 22% of the observations did not meet the commissions' requirement with respect to audit tenure.

Further, a cursory look at the variable of audit delay from the descriptive statistics table presented in table 4.1a clearly showed that on average, financially distressed manufacturing companies in Nigeria has a 31day lag in publishing their annual report while some annual reports were seen to have been published about 471days after year end date. In this study, the mean audit fee value seen in table 4.1a is 3.97 with 5.26 as maximum and 2.23 as minimum values for financially distressed manufacturing companies during the period under consideration.

Table 4.2b Descriptive Analysis Result
Financially Healthy Manufacturing Companies

Variable	Mean	Std. Dev.	Min	Max
Zscore	3.835714	.9824288	3.1	6.37
aten	.6571429	.481594	0	1
adlay	102.1143	66.90853	34	457
afee	4.282	.6979837	2.74	5.8
flev	54.68029	13.58642	26.86	89.32

Source: Author's Computation, 2023

Table 4.1b describes the basic statistics of the variables employed in this study concerning observations for listed financially healthy manufacturing companies (based on Altman Z Score Categorization) in Nigeria during the 2012 to 2022 period. For the variable of audit tenure, the descriptive statistics table reveals that about 66% of the observations that fall under the financially healthy manufacturing firms adhered to the provision of the Security and Exchange Commission as regards auditors' tenure. This result suggests that companies within the financially distressed positions met more with the commissions' requirement for audit tenure. Further, a cursory look at the variable of audit delay from the descriptive statistics table presented in table 4.1b clearly shows that on average, financially healthy manufacturing companies in Nigeria have a 12day lag in publishing their annual report while some annual reports were seen to have been published about 457days after year end date.

For the variable of audit fee, the mean audit fee value seen in table 4.1b is 4.28 with 5.80 as the maximum and 2.74 as the minimum values for financially healthy manufacturing companies during the period under consideration.

4.1.1 Test for Normality of Data

This study adopted the Shapiro-Wilk test for normality test procedure for n =10 to n =2000 which is in line with the position of Razali and Wah (2011). Consequently, the test for normality of data is conducted as shown in the tables 4.2a and 4.2b:

Table 4.2a Analysis for Normality of Data
Financially Distressed Manufacturing Companies
Shapiro-Wilk W test for normal data

Variable	W	V	Z	Prob>z
zscore	0.92382	7.947	4.668	0.00000
aten adlay	0.96976	3.155	2.587	0.00483
	0.63472	38.1087	8.198	0.00000
afee	0.96566	3.583	2.874	0.00203
Flev	0.98852	1.197	0.406	0.34243

Source: Author's Computation, 2023

From the results presented in table 4.2a, it is seen that accounting going concern proxied as Zscore (Prob > z = 0.00000) for the financially distressed companies is statistically significant at 1% level, hence, the variable is not normally distributed. Similarly, the independent variables of audit tenure (Prob > z = 0.00483), audit delay (Prob > z = 0.00000) and audit fee (Prob > z = 0.00203) are not normally distributed since the probabilities of the z-statistics provided by the Shapiro Wilk test for normality is significant at either 1% or 5% level.

Table 4.2b Analysis for Normality of Data
Financially Healthy Manufacturing Companies

Shapiro-Wilk W test for normal data

Variable	W	V	Z	Prob>z
zscore	0.73923	9.308	4.657	0.00000
aten	0.97367	0.940	-1.130	0.55167
adlay	0.48666	18.322	6.071	0.00000
afee	0.68773	1.326	0.589	0.27777
Flev	0.96774	1.151	0.294	0.38420

Source: Author's Computation, 2023

From the results presented in table 4.2b, it is seen that accounting going concern proxied as Zscore (Prob > z = 0.00000), for financially healthy companies is statistically significant at 1% level, hence, the variable is not normally distributed. However, the independent variables including audit tenure (Prob > z = 0.55167) and audit fee (Prob > z = 0.27777), are normally distributed since the probabilities of their z-statistics provided by the Shapiro-Wilk test for normality are statistically insignificant. The outcomes are compelling as it can be observed that more of the independent and the control variables tend to be normally distributed in the financially healthy sample frame. Worthy of note is that the interpretations of these outcomes have been justified following the study of Bera and Jarque (1982).

4.1.2 Correlation Analysis

This study employed the Spearman Rank Correlation analysis technique to conduct the correlation analysis test for the variables of interest as shown in tables 4.3a and 4.3b.

Table 4.3a Correlation Analysis Result
Financially Distressed Manufacturing Companies

Variables	zscore	aten	Adlay	Afee	flev
zscore	1.0000				
aten	-0.0893	1.0000			
adlay	-0.2267	0.1014	1.0000		
afee	-0.0561	-0.0702	0.0951	1.0000	
flev	-0.6198	-0.0166	0.2242	-0.1204	1.0000

Source: Author's Computation, 2023

Specifically, the analysis from the Spearman Rank Correlation analysis showed that the variables of interest plus the control variable include auditors' tenure (-0.0893), audit delay (-0.2267), auditors' fee (-0.0561) and firm leverage (-0.6198) are negatively correlated with the dependent variable (accounting going concern).

Table 4.3b Correlation Analysis Result
Financially Healthy Manufacturing Companies

Variables	zscore	aten	adlay	Afee	flev
zscore	1.0000				
aten	0.0477	1.0000			
adlay	-0.0944	-0.1794	1.0000		
afee	0.0790	0.0060	0.1363	1.0000	
flev	0.0543	0.4291	-0.1780	-0.3806	1.0000

Source: Author's Computation, 2023

Clearly, the analysis from the Spearman rank correlation analysis presented in table 4.3b showed some level of differences in the association among the variables of interest presented in table 4.3a. In table 4.3b, it is seen that not all the independent and control variables negatively associate with the dependent variable. Specifically, the variables of auditors' tenure (0.0477), auditors' fee (0.0790) and firm leverage (0.0543) are positively correlated with the dependent variable (accounting going concern). However, the associations are seen to be weak (less than 0.70) hence there is not much room to expect the presence of multicollinearity in the estimated model.

4.2 Regression Analyses

Specifically, to examine the effect of audit quality (independent variables) on accounting going concern (dependent variable), for financially distressed and financially healthy manufacturing firms in Nigeria, this study employed the panel regression analysis technique and proceeded to validate the estimates. The results obtained are presented in tables 4.4a and 4.4b

Table 4.4a Accounting Going Concern Regression Analysis Result

(Financially Distressed Sample)

ATEN	**-0.6447**	**-0.524**
	(0.108)	**(0.116)**
ADLAY	**-0.0016**	**0.002**
	(0.525)	**(0.346)**
AFEE	**-0.358**	**-0.216**
	(0.422)	**(0.532)**
FLEV	**-0.035**	**-0.010**
	(0.146)	**(0.490)**
CON	**2.6891**	**5.466**
	(0.000) ***	**(0.003) *****
F-STAT/WALD STAT	**2.21 (0.0223)**	**12.68 (0.0485)*****
R^2	**0.44**	**0.40**
VIF	**1.20**	
PRESENCE OF FR/RE ERRORS	**YES (3.57, 0.0094)**	
HAUSMAN SPECIFICATION TEST = 3.78 (0.7060)		
	Presence of Fixed Effect Error (YES)	**Presence of Random Effect Error (YES)**
BREUSCH AND PAGAN LAGRANGIAN MULTIPLIER TEST FOR RANDOM EFFECTS		
$CHIBAR^2(01)$ = 71.38		
PROB > $CHIBAR^2$ = 0.0000 ***		
JOINT TEST FOR NORMALITY ON E:	**$CHI^2(2)$ = 0.54 PROB > CHI^2 = 0.7641**	
JOINT TEST FOR NORMALITY ON U:	**$CHI^2(2)$ = 0.31 PROB > CHI^2 = 0.8225**	

Note: {} are p-values; (2) **, *, implies statistical significance at 5% and 1% levels respectively**
Source: Author's Computation, 2023 Software: STATA 14.0

Table 4.4a presented the results obtained from the regression of listed financially distressed manufacturing companies. As observed from the table 4.4a, the VIF value of 1.61 indicates the absence of multicollinearity. Further, a cursory look at both the F-statistic and Wald-statistic values [8.68 (0.0000) and 60.81 (0.0000)] for fixed and random effect regression models respectively showed that both models are significant at 1%. The coefficient of determination (R- squared) with values of 0.3135 and 0.3020 (fixed and random effect models respectively) indicate that about 31.3% and 30.2% of the systematic changes in the variable of accounting going concern are jointly explained by the independent and control variables. The Hausman specification test [Chi Square value = 22.00, with Probability, = 0.1012] revealed an insignificant probability value indicating the adoption of the random effect model over the fixed effect model. In the selected random effect model, this study test for potential heteroscedasticity in the residua and the diagnostics revealed that there exist significant random errors. Therefore, the panel mixed effect regression analysis technique becomes valid to control for the residua errors, and make interpretation and policy interpretation for this study.

Table 4.4b Accounting Going Concern Regression Analysis Result
(Financially Healthy Sample)

	ZSCORE MODEL (FIXED EFFECT)	ZSCORE MODEL (RANDOM EFFECT)
ATEN	-0.6447	-0.524
	(0.108)	(0.116)
ADLAY	-0.0016	0.002
	(0.525)	(0.346)
AFEE	-0.358	-0.216
	(0.422)	(0.532)
FLEV	-0.035	-0.010
	(0.146)	(0.490)
CON	2.6891	5.466
	(0.000) ***	(0.003) ***
F-STAT/WALD STAT	2.21 (0.0223)	12.68 (0.0485)***
R^2	0.44	0.40
VIF	1.20	
PRESENCE OF FR/RE ERRORS	YES (3.57, 0.0094)	
HAUSMAN SPECIFICATION TEST = 3.78 (0.7060)		
	Presence of Fixed Effect Error (YES)	Presence of Random Effect Error (YES)
BREUSCH AND PAGAN LAGRANGIAN MULTIPLIER TEST FOR RANDOM EFFECTS		
$CHIBAR^2(01)$ = 71.38		
$PROB > CHIBAR^2 = 0.0000$***		
JOINT TEST FOR NORMALITY ON E:	$CHI^2(2) = 0.54$ PROB > $CHI^2 = 0.7641$	
JOINT TEST FOR NORMALITY ON U:	$CHI^2(2) = 0.31$ PROB > $CHI^2 = 0.8225$	

Note: {} are p-values; (2) **, *, implies statistical significance at 5% and 1% levels respectively**
Source: Author's Computation, 2023 Software: STATA 14.0

Table 4.4b presented the results obtained from the regression for listed financially healthy manufacturing companies. As observed from table 4.4b, both F-statistic and Wald-statistic values [2.21 (0.0223) and 12.68 (0.0485)] for fixed and random effect regression models respectively showed that both models are significant. The coefficient of determination (R-squared) with values of 0.4387 and 0.3980 (fixed and random effect models respectively) indicate that about 44% and 40% of the systematic variation in accounting going concern are jointly explained by the independent and control variables. The Hausman specification test [Chi Square value = 3.78, with Probability, = 0.7060] revealed an insignificant probability value indicating the adoption of the random effect model over the fixed effect model. Again, in the selected random effect model, this study proceeded to test for potential heteroscedasticity in the residua and the diagnostics revealed no significant error in the residua hence random effect regression analysis technique becomes valid for interpretation and policy interpretation.

4.3 Test of Hypotheses

4.3.1 Hypothesis One:

H0: There is no significant difference between the effect of audit tenure on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria. **H1:** There is significant difference between the effect of audit tenure on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

Further, it is seen that the mixed effect model presented in table 4.4a reveals the result of the variable of auditor's tenure (aten) on accounting going concern of financially distressed firms as follows: (Coef. = -0.113, z = -1.35 and P -value = 0.176) while the random effect model employed to establish the effect of audit tenure on accounting going concern of financially healthy firms in table 4.4b is revealed as follows: (Coef. = -0.524, z = -1.57 and P -value = 0.116).

Decision: The outcome indicates that the variable of audit tenure has no statistically significant effect on accounting going concern regardless of the financial status (healthy/distress) of the company. Importantly, the result shows a consistent negative sign across both financial status during the period under investigation. This study accepted the stated null hypothesis that there was no significant difference between the effect of audit tenure on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

4.3.2 Hypothesis Two:

H0: There is no significant difference between the effect of audit delay on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

H1: There is significant difference between the effect of audit delay on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

The mixed effect model presented in table 4.4a for financially distressed firms reveals the result of the variable of audit delay (adlay) as follows: (Coef. = 0.0001, z = 0.28 and P -value = 0.777) while the random effect model employed to test the effect of audit delay on accounting going concern for financially healthy firms in table 4.4b revealed a result as follows: (Coef. = -0.002, z = 0.94 and P - value = 0.346).

Decision: The outcome indicates that the variable of audit delay has no significant effect on accounting going concern regardless of the financial status (healthy/distress) of the company. Also, notice that the result shows an inconsistent sign (positive and negative) across financially distressed and financially healthy manufacturing companies respectively during the period of interest. Therefore, based on the outcome, this study accepted the stated null hypothesis that there was no significant difference between the effect of audit delay on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

4.3.3 Hypothesis Three:

H0: There is no significant difference between the effect of audit fees on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

H1: There is significant difference between the effect of audit fees on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

The mixed effect model employed to test the hypothesis for financially distressed firms presented in table 4.4a reveals the result of the variable of audit fees (afee) as follows: (Coef. = -0.319, z = -3.34 and P -value = 0.001), while the random effect model employed to test the hypothesis of the financially healthy firms in table 4.4b revealed the result of the variable of audit fee (afee) as follows: (Coef. = -0.216, z = -0.62 and P -value = 0.532).

Decision: The outcome indicates that the variable of audit fee has a significant effect on accounting going concern for financially distressed manufacturing companies. Importantly too, the result indicates a consistent negative sign across both financial status during the period under investigation. Based on the "ceteris paribus" axiom, the result shows that higher audit fee will significantly worsen the financial distress situation of listed financially distressed manufacturing companies. This study rejected the stated null hypothesis, and accepted the alternative hypothesis that there was significant difference between the effect of audit fees on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

V. CONCLUSION AND RECOMMENDATION

Auditors and financial regulators should consider adopting customized fee arrangements for financially distressed manufacturing companies. This involves tailoring audit fees based on the specific financial conditions and constraints of distressed companies. Such customized fee arrangements can help alleviate the financial burden on distressed companies, ensuring they can access essential audit services without exacerbating their financial challenges. From the findings obtained from the empirical analysis, this study concludes that the effect of audit quality on accounting going concern should be juxtaposed with the financial status (distressed/healthy) of the firm, to obtain a more robust and unique solutions to problems faced by listed firms in Nigeria.

Based on the outcomes obtained from the regression analysis,

1. On audit tenure, this study recommends that manufacturing firm managers whose quest is to secure a higher (better) Altman Z-score should focus less on meeting with the regulation/policy of audit tenure since the effect is seen empirically to be statistically insignificant.
2. On audit delay, this study recommends that managers of manufacturing firms in Nigeria whose quest is to secure higher (better) Altman Z-score should focus less on the variable of audit delay since its effect has been empirically determined to be statistically insignificant.
3. Given the finding that audit fees significantly reduce the financial status for financially distressed manufacturing firms, policymakers should consider implementing fee structuring mechanisms that alleviate the financial burden on distressed companies aiming at striking a balance between the need for rigorous auditing and the financial constraints faced by distressed firms. However, this recommendation can be achieved by exploring the feasibility of financial assistance programs or subsidies for audit fees specifically targeted at financially distressed firms. Such programs can be designed to support distressed firms in accessing essential audit services without compromising their financial recovery efforts.

Contribution to Knowledge

This study examined specifically how audit quality affected the accounting going concern of listed manufacturing firms in Nigeria using Altman Z-score approach as a yardstick for comparison, it provided empirical evidence by exploring listed manufacturing companies which related studies have sparsely examined. Previous literature has been largely skewed to combining the attributes and characteristics of financially distressed companies with the characteristics of financially healthy ones. However, the segmentation of the sample frame into financially healthy and financially distressed manufacturing firms is a unique feature of the study. This approach allowed for a more nuanced analysis, recognizing the diverse financial conditions that firms may experience and providing insights into how audit quality impacts these distinct groups differently.

Suggestions for Further Studies

Like most other related research work, limitations are inherent hence we suggested that future authors carrying out similar studies should cover the financial sector of the Nigerian economy. In this study, we employed the Altman Z-score model as a measuring tool to determine the accounting going concern of listed manufacturing firms, the outcome from the panel regression estimation revealed that audit tenure and audit delay had no significant effect on the accounting going concern of manufacturing firms in Nigeria regardless of the financial status (financially distressed/ financially healthy). Future studies can build upon these findings by employing the use of the Emerging Market Score (EMS), which is the updated version of the Altman Z-score as a measuring tool to determine the effect of audit tenure and audit delay on the accounting going concern of listed manufacturing firms in Nigeria.

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