

## AUDIT ATTRIBUTES AND FINANCIAL DISTRESS OF LISTED MANUFACTURING FIRMS IN NIGERIA.

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### Abstract

*The study identified the determinant of audit fees in the Nigeria manufacturing sector, by examining the effect of Z score (proxy for financial distress) and firm size as control variable on audit fees. In order to gather secondary data from the financial statements of forty-six industrial companies listed on the Nigerian Exchange Group (NGX), the study used an ex post facto research design for a period of ten years (2013 to 2022). The researcher used panel data and multi-level mixed-effect regression to estimate the specified model based on 460 firm-year observation extracted from the financial statements of the units of analysis. The model estimation results show that while firm size as control variable has a negative and non-significant effect on audit fees, financial distress has a positive and non-significant effect in audit fees. Based on the findings, it was concluded that financial distress and firm size are not determinant of audit fees in the Nigeria manufacturing sector. It was therefore recommended amongst others that manufacturing companies in Nigeria should implement robust monitoring mechanisms to detect early signs of financial distress and take proactive measures to mitigate risks. This can help prevent potential audit fee increases associated with escalating distress levels.*

**Key Words:** *Audit fees, financial distress, Firm size.*

### Introduction

The manufacturing sector is one of the major sectors that the Nigerian economy is largely vested, it also creates a large number of jobs, industrial output, and economic growth. However, like many sectors, it faces various challenges, including economic volatility, regulatory changes, and competitive pressures (Dimitropoulos, 2022). Financial distress can have far-reaching implications for manufacturing firms, affecting their ability to operate, invest, and compete effectively in the market (Ayadi *et al.*, 2017). In such situations, firms often seek external assistance, including financial restructuring, debt renegotiation, and strategic alliances, to alleviate the crisis and restore financial stability (Ajayi & Ojo, 2018). In this context, the determination of audit fees becomes a critical issue for manufacturing firms in Nigeria facing financial distress.

Despite the importance of understanding the relationship between financial distress and audit fees, limited research has been conducted in the Nigerian context, particularly focusing on the manufacturing sector (Olaniyi *et al.*, 2019). Therefore, this research seeks to fill this gap by investigating the determinants of audit fees in the Nigeria manufacturing sector, with a specific focus on the influence of financial distress. By examining this relationship, the study aims to provide valuable insights for stakeholders, including policymakers, regulators, auditors, and manufacturing

firms, to better understand the dynamics of audit fee determination in the context of financial distress and its implications for financial reporting and corporate governance.

Regardless of the critical role of audit fees in ensuring the reliability and transparency of financial reporting, there remains a gap in understanding the determinants of audit fees in the Nigeria manufacturing sector. This gap is particularly pronounced in the context of listed manufacturing companies, where factors such as financial distress, audit tenure, and firm size may significantly influence the fees paid for audit services. The problem arises from the lack of comprehensive empirical research examining the specific effects of these determinants on audit fees within the Nigeria manufacturing sector. As such, there is a need to address this gap in the literature to enhance our understanding of the dynamics of audit fee determination in this context. Specifically, there is a need to investigate the impact of financial distress on audit fees, assess the influence of audit tenure, and determine the effect of firm size on audit fees of listed manufacturing companies in Nigeria.

The broad objectives are to identify the determinant of audit fees in the Nigeria manufacturing sector. Also, the research investigated the effect of audit fees and financial distress on audit fees of listed manufacturing companies in Nigeria.

## **Review of Literature**

### **Resource dependence theory**

Resource dependence theory serves as the foundation for this investigation. Pfeffer and Salancik were principally responsible for the development of resource dependence theory in the 1970s. The theory hypothesizes that organizations are dependent on external and outward resources, such as expertise, information, and legitimacy, for their survival and success. According to Pfeffer and Salancik (1978), organizations seek to manage and control their external dependencies by forming strategic relationships, alliances, and networks with external entities, including regulators, and other organizations. The essential principle of resource dependence theory is that organizations are influenced and constrained by their external environment, including the availability and accessibility of critical resources. Organizations may engage in various strategies, such as vertical integration, diversification, and resource pooling, to reduce their dependence on external sources and enhance their control over essential resources.

Critics of resource dependence theory argued that it oversimplifies and generalises Organisational behaviour by focusing excessively on external factors and neglecting internal dynamics and agency. Critics contend that the theory overlooks the role of internal capabilities, strategies, and decision-making processes in shaping Organisational behaviour and outcomes.

This theory is germane to this study in that it is of great importance to examining how organizations depend on external resources, such as expertise (auditors), to survive and thrive. In the context of the study, this theory is used to analyse how manufacturing firms in Nigeria, particularly those experiencing financial distress, depend on external auditors for assurance on their financial

statements. The theory helps to understand the strategic importance of audit services and the willingness of firms to pay fees to secure these resources.

## **2.2 Conceptual review**

### **Concept of financial distress**

Any business that experiences financial hardship may face one of two outcomes. First, there is insufficient cash flow to pay for the company's obligations. Second, the statement of financial position's liabilities side shows a large amount of debt. In this situation, businesses begin to restructure the terms of their debt and payments in order to bargain with creditors. Due to a lack of confidence in its ability to repay, the company is having trouble raising funds to support its activities (Lee et al., 2017). When a company's total obligations exceed its market-valued assets, it is declared bankrupt (Sautner & Vladimirov, 2018). The primary foundation for an organization's survival is its finance operations. There is no precise definition for the word "financial distress" due to its complexity. Furthermore, it is impossible to enumerate all of the reasons and contributing aspects of the financial crisis.

The incapacity of an organization to fulfil its essential responsibilities is known as financial distress. According to Parkinson (2018), financial distress is the likelihood of bankruptcy that is influenced by the size of one's present assets and creditworthiness. Financial distress often refers to a company's incapacity to fulfil its immediate obligations. In direr situations, the company may be reorganized or file for bankruptcy. According to further definitions, a corporation experiences financial hardship when it is unable to meet its obligations to creditors and its activities are on the verge of ceasing (Kamaluddin et al., 2019). Measuring financial suffering is a challenging task. The debt-to-earnings ratio and the debt-to-income ratio are common measures of financial difficulty. It is possible to conclude that a company is having trouble fulfilling its cash flow requirements and is therefore at a high level of bankruptcy if the debt ratio is greater than one or the times interest generated ratio is less than one. Notwithstanding, Altman Z score has been used by many empirical studies to measure financial distress (Kamaluddin *et al.*, 2019), hence this study also adopts Altman Z score for this study.

### **Concept of firm size**

Small, medium, and large businesses are the three categories into which corporations are divided. As the company's assets expand, so does the amount of capital that has to be invested. The turnover rate rises as the company's overall revenues do, and the more market capitalization a company has, the more is well-known to the public. enterprises can replace new, more competent auditors to provide better monitoring because larger enterprises will make it harder for owners to oversee, which will raise agency charges (Hussaini & Fadjaranie, 2022). One of the main issues with contemporary enterprise theory is firm size, which is still significant when examining enterprise growth (Yilun, 2020). Company size is an attempt to quantify the size of a business.

Firm size continues to be a significant factor in the study of enterprise growth and is one of the central issues of contemporary enterprise theory (Yilun, 2020). Company size refers to an effort to ascertain the size of a firm.

### **Concept of audit fee**

Statutorily, industries and organization must have an external auditor independently to review their financial statements without sacrificing the audit's quality. In order to do this, an audit client is expected to pay a certain amount of audit fees, which should be proportionate to the entire amount of audit services provided and should represent the caliber of audit work completed during the auditing process. According to Agoes (2017), an audit fee's price is determined by a number of factors, including the assignment's risk, the complexity of the services rendered, the level of experience needed to complete the service, the KAP's cost structure, and other professional factors. How high the member fee should be all depends on a number of professional considerations, including the degree of experience required to deliver the services, the risk of the assignment, the complexity of the services, the applicable KAP's fee schedule, and other factors.

### **Audit fee and financial distress**

Empirical study on the topic indicates a favourable correlation between the audit charge and audit quality. Z-Score, a measure of financial distress, has a negative and significant relationship with audit fees, according to Lu and Ma (2016). These results are also in line with previous existing research that examines how differences in audit fees affect audit quality (Reichelt & Wang).

### **Firm size and audit fee**

Owing to the complexity of their tasks and workforce, the need for expensive, experienced, and professional auditors, as well as the increased public reward for financial research, auditing the accounts of companies in major industries may take longer. They revealed more information as a result of these, which calls for a professional auditing procedure. Large companies, on the other hand, have sophisticated accounting and internal control systems that should reduce the workload and assignments of auditors and, thus, lower audit fees.

Using the panel regression technique and Simunic's (1980) audit fee model, Musah (2017) investigated the factors influencing audit fees in Ghana and found that client size has a substantial impact on audit price determination. Hossain et al. (2017) used the regression approach to examine the determinants influencing audit fees in Japan. The projected result indicated that audit fees and size have a positive relationship.

### **Conceptual model of financial distress and audit fee**

The conceptual model is a graphic that illustrates the relationship between the components in a proposed model by logically and diagrammatically connecting variables. To fully comprehend the extent to which financial distress impacts audit fees, a conceptual model is required. To understand this relationship, the model of this study includes financial distress, and firm size as control variable. These are assumed to affect the audit fee positively or otherwise. The direction of the assumed link between these variables under investigation is shown by the model in figure 1 below.

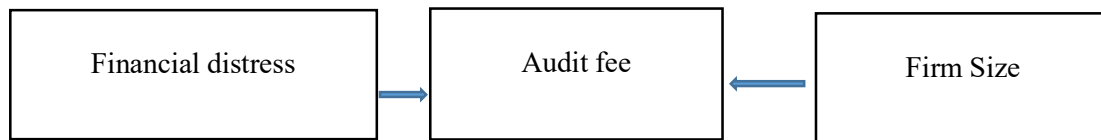


FIG. 1: Conceptual model of financial distress and audit fee

Source: Researcher's model linkage, 2024

### Empirical review

Audit effort was investigated by Monye-Emina and Jeroh (2022) as a possible determinant of aberrant audit fees. Secondary data for the observation period (2010-2019) came from the pertinent financial statements and audited annual reports of the Nigerian listed banks. The right techniques were used, including descriptive statistics, panel regression, and the correlation matrix. It is evident that irregular audit fees and joint audits were more strongly correlated, while audit fees and size were significantly but negatively correlated. The results showed that atypical audit fees were positively correlated with joint audits, but negatively correlated with IFRS, client complexity, and client size.

Castio and Lovita (2020) examined the effect of Fee Audit, Financial Distress and Profitability on Audit Delay in manufacturing companies in the mining sector is listed on the Indonesia Stock Exchange 2014-2018. With the use of Eviews 10, this study's quantitative methodology was assessed through the use of multiple linear regression-based techniques. The study's participants were mining and manufacturing firms that were listed between 2014 and 2018 on the Indonesia Stock Exchange (BEI). Purposive sampling was used to identify the sample, which consisted of 18 manufacturing enterprises that produced mining-related products. This meant that there were 90 observations in total for the study. Secondary data were employed in this investigation. According to partial regression analysis, financial difficulty was the sole factor that affected audit delays from mining and manufacturing companies listed on the Indonesia Stock Exchange (BEI) between 2014 and 2018. In other words, the more financial crisis there is, the more profits the company makes, and the quicker the audit report lag. The fee audit variable is the outcome that has no bearing on the audit delay mining firm; the auditor will always operate professionally; therefore, the amount of the fee does not have an impact on audit delay.

Shemshad (2023) investigated the relationship between financial helplessness and audit fees consider the role of firm size. Multivariate linear regression was used to test the two hypotheses of this research. The statistical population was 130 companies admitted to the Tehran Stock Exchange during 2013-2022 (1300 observations per year). Altman's model [1] was used to measure financial helplessness. The results of the research indicated the existence of a negative and significant relationship between financial distress and audit fees. That is when companies are in financial trouble, they pressure auditors to reduce their fees. The results showed that firm size can moderate the relationship between financial distress and audit fees. The results of additional tests exhibit that the difference between the sizes of the firm, that is, large and small and medium, has a significant difference in this regard.

Salehi *et al.* (2019) investigated stickiness of audit fees and the influential factors, specifically audit quality and financial crisis in an emerging economy. Three primary criteria—auditor size, industry specialization, and tenure—were used to evaluate the quality of the audit. The financial problem of the firms was identified using the Altman adjusted bankruptcy model. From 2009 to 2015, an investigation was conducted into the listed companies on the Tehran stock exchange market. Research hypotheses are tested using multiple regression models. Additionally, the Chow and Hausman tests are used to decide amongst fixed, random, and hybrid effects models. The results indicate that there is no meaningful correlation between audit quality and the stickiness of audit fees. The authors also found that financial crises have no effect on the connection between audit quality and audit fee stickiness.

Kyriakou (2022) examined the impact of the recent financial crisis on audit quality by analysing discretionary accruals. In order to examine the independence of the auditor, the study looked at a sample of non-financial companies in Germany, France, Italy, and Spain between 2005 and 2013. When the financial crisis results in a decline in audit quality, to take into consideration other aspects of the auditor's independence, it uses a cross-sectional and time-series ordinary least squares regression model. The findings demonstrated that a greater proportion of non-financial businesses had lower audit quality during the financial crisis. Additionally, auditors were less inclined to offer these non-financial organizations greater audit quality during the crisis. After the crisis ended, the quality of audits returned to normal in the years that followed.

Dimitropoulos (2022) did an empirical study regarding the impact of litigation risk on audit and non-audit fees during and after the 2008 financial crisis (FC). The study examined the audit and non-audit fee cost structures using a panel cross-sectional regression model. A sample of ninety-three non-financial companies that are listed on the London Stock Exchange (LSE) was chosen for this study. The empirical results of the research indicate that the lawsuit risk during the FC period has no bearing on the amount of auditing and non-auditing fees in the UK. Nonetheless, following the FC period, clients have pressed their auditors to lower the amount of non-auditing service charge payments.

## **Methodology**

With firm size serving as a control variable, this study uses content analysis as the ex-post facto research design used to investigate and validate the claim that financial distress influences audit fees of Nigerian listed manufacturing companies over a ten-year period from 2013 to 2022. The study focused on secondary data collected from the annual reports and accounts of manufacturing companies listed on the Nigeria Exchange Group (NGX). The population of the study comprised forty-six listed manufacturing companies excluding those involved in petroleum operations. The sample size was determined using convenience/judgmental sampling, encompassing all forty-six active manufacturing companies on the NGX market. Data collection was collected from audited financial reports from 2013 to 2022 from selected companies.

Ordinary Least Squares (OLS) regression was employed for data analysis. The functional model specified the relationship between audit fees and financial distress using Z-score as proxies. The functional model adapted can therefore be stated as

$$AF = f(FD) \text{-----} (1)$$

AF = Audit Fees

FD = Financial distress.

The model is presented in econometrics form as:

$$AF = \beta_0 + \beta_1 FD + \epsilon \text{-----} (2)$$

The model is further presented with the proxies as follows:

$$AF_{i,t} = \beta_{0i,t} + \beta_1 Z\text{-Score}_{i,t} + C_2 FS_{i,t} + \epsilon_{i,t} \text{-----(3)}$$

Where AF = Audit fee. This is measured using the logarithmic transformation of ₦ value remunerated to the auditor for the audit services (Hanlon *et al.* 2012)

Z- Score= Altman's Z-Score Model Formula use as the dependent variable. Altman's Z-score model, which uses corporate income and numerous balance sheet variables, is seen to be a helpful instrument for determining the degree of financial difficulty faced by an organization. The following is the formula for Altman's Z-score:

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

Where:

Zeta ( $\zeta$ ) = is the Altman's Z-score

A = Working Capital/Total Assets ratio

B = Retained Earnings/Total Assets ratio

C = Earnings Before Interest and Tax/Total Assets ratio

D= Market Value of Equity/Total Liabilities ratio

E= Total Sales/Total Assets ratio

If a company's Z-score is less than 1.8, it is in financial trouble and has a significant chance of going bankrupt. However, a company that receives a score of three or higher is safe and unlikely to file for bankruptcy. If a company's score is between 1.8 and 3, it is in the gray area and has a moderate chance of filing for bankruptcy.

FS = Firm size. This is the control variable included in the model and it is represented by the natural log of total assets.

$\beta_0$  = beta constant of the model

$\beta_1$  = beta coefficient of the study model without the control variable

$C_0$  = Coefficients of the control variable

$i,t$  = firm  $i$  at time  $t$

$\epsilon$  = Error term.

The dataset's panel structure, which combines cross-sectional and time series properties, led to the selection of Panel Least Squares regression as the data analysis method. Pre-estimation tests, including tests for heteroscedasticity, multicollinearity, and normality, were performed prior to model estimation in order to guarantee the accuracy of the findings. All things considered, the study used exacting research procedures and data analysis strategies to look into the connection between audit fees and financial difficulty in the manufacturing sector of Nigeria.

## Results and Discussion of Findings

Table 1: Descriptive Statistics

| Variable | Obs. | Mean    | Std. Dev. | Minimum | Maximum | Skewness  | Kurtosis |
|----------|------|---------|-----------|---------|---------|-----------|----------|
| AF       | 460  | 4.34923 | .95645    | .30     | 7.87    | .7937583  | 5.1535   |
| Zs       | 460  | 1.01082 | .372304   | -9.6    | 6.37    | -1.262237 | 13.52331 |
| FS       | 460  | 6.91789 | 1.38044   | 1.4     | 9.45    | -1.197131 | 5.051808 |

Source: Author's compilation, 2024

In this section, the study examined the variables' descriptive statistics according to the skewness, kurtosis, maximum and minimum, mean, and standard deviation. Table 1 above shows the descriptive statistics. The audit fee proxy has a mean value of 4.34923 and a standard deviation of 0.95645. Its minimum and maximum values are .30 and 7.87 respectively. For the independent variables, there is average values of 1.01082 for Z scores (Zs) and 6.91789 for firm size (FS) as log of total asset. The values of the standard deviation were .372304 and 1.38044 respectively, while maximum and minimum values are respectively -9.6 and 6.37 for Zs and 1.4 and 9.45 for FS respectively. Although the skewness values for the three variables (AF, Zs and FS) fell within the accepted range, their kurtosis values (5.1535, 13.52331 and 5.051808) fell outside the range of  $\pm 2.58$  as recommended by Hair *et al.* (2010). This showed that the distribution was not normal as some exceeded the recommended point of  $\pm 2.58$ . Notwithstanding, there is need to perform correlation analysis in other have further justification of the proof.

### Tests of normality

Table 2

| Shapiro Normality Tests |      |         |        |       |         |
|-------------------------|------|---------|--------|-------|---------|
| Variable                | Obs. | W       | V      | Z     | Prob >Z |
| AF                      | 460  | 0.93590 | 20.004 | 7.175 | 0.00000 |
| Z score                 | 460  | 0.88121 | 37.071 | 8.652 | 0.00000 |
| FS                      | 460  | 0.91977 | 25.039 | 7.712 | 0.00000 |

Source: Author's compilation, 2024

The data's normal distribution is one of the presumptions of least squares regression. Stated otherwise, the distribution of the observations is normal (Gaussian). The data normality test in this investigation was performed using the Shapiro-Wilk test, as indicated in Table 2. A statistical tool for determining if a dataset is normal is the Shapiro-Wilk test. The alternative hypothesis (H1) contends that the data in this test are not regularly distributed, whereas the null hypothesis (H0) maintains that the data are. All three variables' p-values (FS, Z-Score, and AF) are below the significance level (0.05). This

suggests that the null hypothesis is strongly refuted. As a result, we determine that the AF, Z-Score, and FS are not normally distributed and reject the null hypothesis.

### Correlation analysis

Table 3: Correlation matrix for multi-collinearity test

|    | AF      | Zs      | FS |
|----|---------|---------|----|
| AF | 1       |         |    |
| Zs | 0.2191* | 1       |    |
|    | 0.0000  |         |    |
| FS | 0.0866  | 0.1748* | 1  |
|    | 0.0635  | 0.002   |    |

Source: Researchers' compilation (2024) from STATA version 14.

\*\*Significant at 0.05 level (2 tailed)

To further investigate the relationship between the variables, the Pearson Moment Correlation Coefficient analytic method was used. According to table 3's findings, there is a slight positive monotonic association between AF and Z-score, as indicated by the correlation coefficient of 0.2191. At the 5% significance level, this association appears to be statistically significant, as indicated by the p-value (0.0000), which is less than 0.05. Additionally, there is a weak positive monotonic association between the two variables, as indicated by the Pearson Moment correlation coefficient of 0.1748 between Z score and FS. This correlation is statistically significant at the 5% significance level, as indicated by the p-value (0.002) being less than 0.05. Conversely, although if the correlation between AF and FS is positive (0.0866), suggesting a mild positive monotonic link between the two variables, the p-value (0.0635) is bigger than 0.05, meaning that the correlation is not statistically significant. Correlations of .80 and above among variables are considered a problem because of multi-collinearity (Hair *et al.* 2010). Contrary to the above result, there is no presence multicollinearity as there are low correlation results amongst the variables. More test on multicollinearity was performed to validate the proof.

### Tests of Multicollinearity

Table 4: Multi-collinearity test

| Variable | VIF  | 1/VIF    |
|----------|------|----------|
| Z score  | 1.03 | 0.969428 |
| FS       | 1,03 | 0.969428 |
| Mean VIF | 1.03 |          |

Source: Researchers' compilation (2024) from STATA version 14.

Table 4's results demonstrate that each variable's variance inflation factor (VIF) is low, with values for each variable being less than 10. The tolerance defined as  $1/vif$  is the degree of collinearity. The values show a greater figure above 0.25. This indicates that none of the model's variables exhibit multi-collinearity. It also shows that the variables are correlated.

### Heteroskedasticity test

Table 5: Heteroscedasticity test using the Breusch-Pagan-Godfrey test

| Heteroscedasticity test |        |
|-------------------------|--------|
| chi2(1)                 | 45.66  |
| Prob > chi2             | 0.0000 |

Source: Researchers' computation (2024) from STATA 14

One method for identifying heteroskedasticity in a regression model is the Breusch-Pagan/Cook-Weisberg test. The alternative hypothesis proposes heteroskedasticity, whereas the null hypothesis ( $H_0$ ) asserts that the variance of the error terms is constant. In the provided result, the test statistic (chi2) is 45.66 and the probability value (Prob > chi2) is 0.0000. We reject the null hypothesis because the probability value (0.0000) is less than the significance level, which is typically 0.05. This indicates that the fitted Z-score values provide evidence for the presence of heteroskedasticity in the model. In simpler terms, the test suggests shows the variance of the error terms is inconsistent across the range of fitting values of audit fees, hence violating the premise of constant variance of error terms.

### Regression result

Table 6: Regression Result

|                   | Pooled OLS       | Fixed effect     | Random effect   |
|-------------------|------------------|------------------|-----------------|
| C                 | 4.79659 (0.000)* | -2.5853 (0.179}  | -1.5177 (0.742) |
| Z score           | 0.16842(0.000)*  |                  |                 |
| FS                | -0.08927(0.005)* | -0.02390 (0.920} | 0.1422 (0.357)  |
| F/Wald Statistics | 15.65 (0.0000)*  | 1.65{0.1597}     | 14.54{0.0058}   |
| R-Squared         | 0.0641           | 0.0805           | 0.0918          |
| Hausman Test      |                  |                  | 16.97 {0.0002}  |

Source: Author's compilation, 2024. Note: Bracket { } are p-values; \*, †, implies statistical significance at 5 percent and LR for RE

### Hausman specification test

Table 6 display the pool least square regression result; the estimation of the least square regression findings yielded the fixed effect and random effect regression results. The Hausman specification test is conducted to enable the researcher to decide which of the two-panel regression estimation results to be interpreted and the null hypothesis, which states that the random effect model is superior to the fixed effect model, forms the basis of the test. The null hypothesis should be accepted since the Hausman test's p-value for the random effect model is less than 0.05 (0.0002). This suggests that the study's conclusions and suggestions should be based on the fixed effect panel regression results.

**Table 7: Fixed effect regression with robust**

| Variable  | Coefficient | Z-Stat | Prob>  Z |
|-----------|-------------|--------|----------|
| C         | 7.6207      | 2.81   | 0.007    |
| Z Score   | 0.03094     | 1.31   | 0.197    |
| FS        | -0.4774     | 1.21   | 0.231    |
| F-Stat.   | 1.17        |        | 0.3183   |
| R- square | 0.0103      |        |          |

*Source: Author's compilation, 2024.*

In other to improve upon the fixed effect result, the robust test was performed so as to validate casual inference. This is shown on table 7 above.

### **Discussion of findings**

The study's conclusions offer important new information about the connection between financial difficulty and audit fees of listed manufacturing companies in Nigeria considering firm size as a control variable. These are explained separately below in detail. According to the study, the audit fees of Nigerian listed manufacturing companies are positively and non-significantly impacted by financial difficulty. The implication is that financial distress experienced by the listed firm is relatively mild or moderate, thus not significantly increase the perceived audit risk or complexity for auditors. In this case, standard audit procedures and resources without the need for additional effort or specialized expertise were allocated, resulting in a positive but non-significant effect. These findings support the findings of Gul *et al.* (2018) who found that higher managerial ability increases audit fees in financially distressed firms and decreases audit fees in non-distressed firms. In the same vein, Salehi *et al.* (2019) also found that financial crisis to have no impact on the association between audit quality and audit fees stickiness. It however contradicts with the study of Shemshad (2023) who found that there is existence of negative relationship between financial distress and audit fees. The study shown that firm size has control variable to be positively related but has non-significant effect on audit fees of listed manufacturing firms in Nigeria. This implies that larger firms with well-

established and standardized financial reporting processes may require less effort and resources from auditors to conduct the audit. In such cases, the incremental increase in audit fees associated with firm size may not be statistically significant. Similar, larger firms benefit from economies of scale in their operations, including the audit process. As firms grow larger, they have more standardized processes, streamlined financial reporting systems, and better internal controls, leading to lower audit complexity and, consequently, lower audit fees. Auditors may perceive lower risk in auditing larger firms, leading to lower audit fees as compared to smaller or riskier firms. Furthermore, when negotiating audit rates with external auditors, larger organizations have more negotiating leverage and bargaining power. They may be able to attract larger audit firms or negotiate more favourable fee arrangements due to their size, reputation, and financial stability. The study contradicts with study of Sinaga and Sinaga (2018) who found that firm size has significant and positive effect on audit fee. Also, contradicting these findings is that of Shemshad (2023) whose results showed that firm size can moderate the relationship between financial distress and audit fees. Also neglecting the findings of the study is that of Zu (2019) who found that auditor firm size is a factor affecting audit fees.

## **Conclusion**

This study investigated the determinants of audit fees in the Nigerian manufacturing sector, focusing specifically on the effects of financial distress and firm size as control variable. Utilizing a robust research design and panel data analysis, the findings contribute valuable insights to the existing literature. Regarding financial distress, the study found a positive but non-significant effect on audit fees for listed manufacturing firms in Nigeria. This suggests that mild to moderate levels of financial distress may not significantly increase perceived audit risk or complexity for auditors. Instead, standard audit procedures and resources are allocated, resulting in a positive albeit non-significant effect on audit fees. These findings are in consistent with some prior research but contradict to others views, indicating the complexity and context-specific nature of the relationship between financial distress and audit fees. Similarly, firm size was found to have a positive but non-significant effect on audit fees for listed manufacturing firms in Nigeria. In other words, larger firms with established financial reporting processes may require less effort and resources from auditors, leading to lower audit fees. These findings align with certain studies but contrast with others, underscoring the diverse factors influencing audit fees across different contexts. Based on the research findings, the study concluded that financial distress and firm size are not determinant of audit fees in the Nigeria manufacturing sector.

## **Recommendations**

It was recommended amongst others that;

- i. Companies should implement robust monitoring mechanisms to detect early signs of financial distress and take proactive measures to mitigate risks. This can help prevent potential audit fee increases associated with escalating distress levels.

ii. Future research could explore additional factors influencing audit fees in the Nigerian manufacturing sector, such as industry-specific regulations, corporate governance practices, and auditor-client relationships. This would give stakeholders a more thorough grasp of the factors that affect audit fees and help them develop useful solutions.

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