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Firms- Related Attributes and Timely Reporting: Evidence of Listed Family-Owned Firms in Nigeria

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ABSTRACT

Despite the regulatory deadline set by the Nigerian Exchange Group (NGX) for issuance of financial reports for listed companies, untimely presentation of financial reports still exists, leading to lopsided capital market and great concern for the market participants and other stakeholders. The study therefore seeks to examined the effect of firms related attributes on timely financial reporting. The study employed longitudinal research design on a population of 39 listed family-owned firms on the NGX as at 31st December 2022 over a period of 11 years from 2012- 2022. Secondary data were collected from the published annual reports of 17 purposively selected listed family-owned firms. Data collected were analysed using descriptive statistics, Panel Corrected Standard Error. Therefore, the study revealed negative effect on timely financial reporting, except for leverage. Profitability, audit fee and firm size revealed statistically insignificant effect, while leverage presented statistically significant result. The study concluded that leverage contribute significantly to delay in financial reporting among the firms examined. It is therefore recommended that firms should place leverage on a reasonable benchmark, at which timely financial reporting will not be affected within the listed family-owned firms. Listed family-owned firms should ensure prompt issuance of financial reports in the interest of the stakeholders and efficient capital market.

KEYWORDS: Family-Owned Firms, Profitability, Leverage, Firm Size, Timely Reporting

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1. INTRODUCTION

In the IFRS reporting era, more information is expected to be disclosed within a specified period. Contents of financial reports are of interest to diverse stakeholders which must be made public at a time it has economic advantage to them (Bananuka & Nkundabanyanga, 2022). However, several studies such as Olaoye and Osho (2021), Okerekeoti and Ezejiofor (2022), Waris and Haji Din (2023), have investigated the effect of firms- related attributes on timely issuance of financial reports, but with limited focus on family-owned businesses.

Interestingly, family-owned businesses are growing in both developed and developing markets in recent times (Alpay, 2008). According to Miroshnychenko, et al., (2021), based on sample of firms from 43 nations, family-owned businesses showcase more growth rate alongside non-family-owned counterparts. However, it cannot be disputed that family-owned businesses' uniqueness might be capable of impacting timely financial reporting. It is therefore an empirical issue that firms- related attributes might be capable of affecting timely reporting among listed family-owned firms (Waris & Haji Din, 2023), especially in a developing economy like Nigeria.

Untimely financial reporting of corporate entities has raised concerns in both developed and developing countries, and Nigeria is not an exception. Delay in financial reporting has created difficulty in trading in shares as well as challenges for foreign potential investors (Warrad, 2018). Untimely issuance of financial reports is a great challenge in various stock markets across the world (Adedeji, et al., 2020). It increases the uncertainty surrounding investment decisions, resulting to an increase in financial risk in the stock market, this oftentimes discourage local and international potential investors.

Based on the findings by Salehi, et al., (2020), decision makers and users incur additional expenses as a result of delay in the issuance of accounting report, such as penalty for late reporting or displacement from the NGX after an overdue period. Untimely issuance of annual financial reports is a strategy to increase information inequalities, insider trading, and the spread of rumour in regards to the "financial health" and performance of an organization. Consequently, the Nigerian Exchange Group has made efforts over the years to ensure prompt reporting of financial information in Nigeria by setting deadline for listed companies for annual financial reporting. Despite the regulatory directive, reporting lag still persist (Eze & Nkak, 2020). Studies, such as Afenya, et al., (2022), Waris and Haji Din (2023) have stressed that firm-specific characteristics are factors responsible for the delay.

According to Dinh, and Calabrò, (2019) because of highly concentrated ownership, weak legal framework, and family-controlled company models, corporate governance mechanisms in Asian firms fail to function successfully in Asia. Puni and Anlesinya (2020) established that family businesses corporate governance structure are often influenced by individuals related by adoption, blood or marriage. Therefore, researchers seek to investigate firms- related attributes within listed family-owned firms so as to justify the peculiarity of such entity.

Existing study such as Ozoanigbo, et al., (2016), stressed that companies with low profitability do not issue their financial report on time, since negative news are difficult to release, compare with positive news. Moreover, the size of an organisation often times affects the level of activities, performance, effectiveness and its efficiency, while Arowoshegbe et al. (2017) suggested that leverage and audit fee could affect the timely issuance of financial reporting.

The presence of family-owned firms such as Abbey Mortgage Bank, Meyer Plc, Sovereign Trust Insurance, among other companies that were sanctioned for late issuance of financial report by the Nigerian Exchange Group in year 2017 indicate a problem of untimely financial reporting in the Nigerian family-owned firms. Based on the lingering problems on delay in issuance of timely audited reports despite the statutory directives by Nigerian Exchange Group, of which family-owned listed firms is not an exception, there is need to investigate the effect of firms- related attributes on timely reporting of listed family-owned firms in Nigeria. The relative importance of different firm attributes may vary across industries, market conditions, and regulatory environments, requiring nuanced analysis.

This study would be of utmost importance to the stakeholders of listed family-owned firms in Nigeria, such as shareholders, directors and management. Based on this study, directors and management of listed family-owned firms, would understand the state and factors likely to affect timely financial reporting in the sector.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Timely reporting

Timely financial statement refers to the days between the end of the fiscal year and the period the public accountant attest to the published financial report (Al-Muzaiqer et al., 2018; Pradipta & Zalukhu, 2020). According to International Accounting Standard Board (IASB) (2018), the availability of information to decision-makers at the proper time to aid decisions is defined as timely reporting. The ability to make financial report accessible to users at the appropriate time is a crucial component of a successful financial report. Financial Accounting Standards Board (FASB) (2010) asserts that timely financial report serves as one of the essential elements relevant for making decisions. When people have access to information at the time when it will help them make decisions, it is said to be timely. External users must receive timely information on a regular basis due to the need for it.

According to Odjaremu and Jeroh (2019) timeliness of financial reporting is viewed as one of the enhancing qualitative characteristics of financial information, which ensures users have easy access to company's financial information before its usefulness is impaired. Al-Muzaiqer et al., (2018) stated that if information is not easily accessible to users or decision makers, it may lose its usefulness. Oraka et al. (2019) reiterated the need for timely issuance of financial report in order to increase market control and effectiveness by limiting knowledge leakages, rumors, insider trading, and optimal investment.

In the literature, the audit report lag is defined as the number of calendar days from the end of the fiscal year to the date of a signed audit report (Firnanti & Karmudiandri, 2020). Thus, a financial report is considered to be prompt if the information is made available to users before it loses usefulness. Thus, availability of financial and non-financial information to users before its market value declines is referred to as timeliness of financial reports, measured as the number of days after the end of the final year till when the auditor signed the audited report.

2.2 Firms- related attributes

Firms- related attributes are the business characteristics, peculiarity of an entity, which is found to be influencing timeliness of financial reporting. Given the relevance of company characteristics, substantial emphasis has been dedicated to company factors that may affect timely reporting, (Iyoha, 2012). Previous research has found numerous company characteristics that may affect timeliness of financial disclosures. Therefore, company's attributes, namely profitability, leverage, firm size and audit fee was examined in this study.

2.2.1 Profitability

Profitability is frequently referred to by management as the ideal statistics to use when assessing a company's performance (Budiyanto et al., 2015). Profitability is a ratio that compares an organisation's profit to the capital or assets it has (Putra & Ramantha, 2015). A company's high profitability will give an excellent news, which will motivate management to promptly give investors the financial accounts of the company, Edmans (2021). The ability of an organization to generate income from its sources, such as money, resources, or firm revenues, is measured in terms of profitability (Mithas, & Rust, 2016). Profitability is distinguished from mere revenue growth, as a company can increase its sales while still operating unprofitably if costs rise disproportionately. It remains the ultimate financial objective for most businesses and a critical indicator of business health for investors, creditors, and other stakeholders.

Putra and Ramantha (2015) discovered that a high degree of profitability can have an impact on timely financial statement filing. The likelihood that the company will be urged to file its financial statements on time increases with the degree of profit produced or 'good news' to the public. Therefore, profitability refers to the returns attributable to a firm after tax divided by total assets. Profitability is a fundamental financial concept that measures a business's ability to generate earnings relative to its expenses and other relevant costs incurred during a specific period. At its core, profitability represents the capacity of a business to create financial value beyond what is required to cover its operating costs, investments, and financial obligations.

2.2.2 Leverage

The term "leverage" refers to the utilization of financial resources like debt and borrowed money to increase the return on equity (Vătavu, 2015). Therefore, highly leveraged enterprises will be accountable for meeting the needs of the creditors by spreading trustworthy information on the website to increase these creditors' confidence in the companies' ability to pay their debts (Nigam, & Boughanmi, 2017). Similarly, in order to evaluate the firm's financial capability, both owners and creditors would request more information (Hussain et al., 2018). The optimal use of leverage depends on industry norms, business stability, growth stage, and management's risk tolerance. While increased leverage can enhance profitability during favorable conditions, it also increases financial vulnerability during downturns. The level to which a firm's borrowed finance resources are used is measured by leverage (Boyko, et al., 2019).

According to Putri (2020), leverage shows that businesses need to borrow money in order to finance their capital investments. When a company achieves positive leverage, which means that the rate of return on owners' equity exceeds the rate of return-on-investment capital, this might reduce the delay in the insurance of financial report. Conversely, negative leaverage can result to delay in financial reporting. Leverage is a key firm's attributes that affects timely financial reporting, according to Askoy et al., (2021). Gearing is another term for leverage. It is the area where a company's obligations and assets are correlated; specifically, it is the sum of all debts used to finance the company's assets (Udeh, & Ngwoke, 2019). Leverage is also used to gauge a company's capacity to pay off its debts when they become due. When a company has more debt than equity, it is said to be highly leveraged. These companies take more time for audits, demand high standards from the auditing firms they hire, and pay higher agency and monitoring fees as a result (Yeboah et al., 2023).

2.2.3 Firm Size

The size of the business reflects all of its assets (Jihadi, et al., 2021). The size of the company is anticipated to have a favourable impact on the reporting lag of the auditors since larger organizations may have more transactions that require the auditors to undertake audit work, which lengthens the duration of time needed to conclude the audit engagement. According to Kusumawati and Setiawan, (2019) a company's size is determined by the total value of all assets it owns. It is anticipated that the company's policy on timely financial statement submission will be impacted by the size of the business. Larger organizations typically have personnel resources and supporting facilities. Large businesses are moreover frequently under pressure from investors, to provide financial accounts at the appropriate time. Firm size is equally the skills of a company and the quantity and diversity of merchandises and facilities a company can make available concurrently to customers (Doucoure & Diagne, 2020).

Additionally, Abdillah, et al., (2019) contend that the size of a corporation is one of the characteristics that has frequently been linked to the delay in financial reporting. Numerous studies have demonstrated that there is a strong association between firm size and timely financial reporting as well as the delay in both developing and developed countries. Suadiye (2019) investigates the timeliness of submitting financial reports on the Athens Stock Exchange and discovers that smaller enterprises take longer than larger corporations to issue their financial reports. According to Akle (2011), company size has a big impact on how quickly financial reports are produced. He demonstrates how it often takes large businesses fewer period to publish their yearly financial report, than smaller firms. Large corporations often file their financial statements at the appropriate time. This is due to the fact that big businesses frequently have facilities and worker resources that can handle them, which encourages businesses to file their financial accounts on time.

Ezat (2019) examined 154 firms across emerging markets and found that larger companies released financial reports approximately 9-12 days faster than their smaller counterparts, attributing this efficiency to sophisticated ERP systems and dedicated financial reporting teams. Similarly, Abernathy et al. (2020) analyzed US public companies post-SOX implementation and confirmed that larger firms (measured by market capitalization) exhibited shorter audit report lags, suggesting scale-related resources contribute to prompter financial reporting. Olusola and Abdulrasheed (2021) studied Nigerian listed companies and discovered that firm size positively correlated with reporting timeliness, contradicting some earlier Nigerian studies. They attributed this to larger firms' increased scrutiny from institutional investors and regulatory bodies.

2.2.4 Audit Fee

The monetary compensation an auditor charges for carrying out an independent examination is identified as the audit fee. Based on the complexity of services, risk assessment, cost structure of the audit business, required degree of skill, and other professional concerns, audit prices can vary widely amongst audit firms (Isah & Muhammad, 2019). In comparison to paying lower audit fees, higher audit fees result in the auditors providing their clients with more expert auditing services (Ado et al., 2020). As a measure of the caliber of a firm's audit, using multiple regression models, Farouk and Hassan (2014) examined the connection between fees for audit exercise and auditor's independence and discovered that the unusual audit charges are negatively correlated with quality of the audit.

Large auditing firms are able to command audit fees that are commensurate with their affluent status and reduce their customers' risk of legal action, according to Ugwunta et al. (2018). The audit fee is determined by a number of criteria. Companies who declare high levels of profits will have their revenues and expenses subjected to rigorous audit testing, which will increase the audit fees. In theory, the amount of audit fees that a client firm pays to its audit firm reflects the level of audit work that the latter must perform during the auditing process. This level of work is defined by the auditor's assessment of the process's complexity and the desired level of risk.

The audit fee is the sum that the auditor charges for carrying out an audit exercise. Specifically, this refers to the cost an auditor charges for a statutory audit in order to provide an opinion regarding financial situation or position of a firm (Onaolapo et al., 2017). According to the complexity of services, risk assessment, the cost structure of the audit business, the required degree of competence, and other professional considerations, audit fees might differ dramatically from one audit firm to another (Isah & Muhammad, 2019). When audit fees are paid in higher amounts than when they are paid in lesser amounts, it is implied that the auditors provide their clients with more professional auditing services. (Ado et al., 2020). Ugwunta, et al., (2018) states that corporations reporting significant amounts of profit are subject to thorough audit testing of their income and expenses, resulting in greater audit costs.

2.3 Theoretical Review

2.3.1 Agency theory

Agency theory provides a powerful framework for understanding the timeliness of financial reporting, (Meckling & Jensen, 1976). The relationship centres on information asymmetry and conflicting interests between managers (agents) and shareholders (principals). Timely reporting reduces the information gap between managers who have internal knowledge and shareholders who rely on external disclosures. Prompt financial reporting serves as a monitoring tool that limits managers' ability to pursue self-interests at shareholders' expense, Elrefae (2024). Companies with strong governance structures typically produce more timely reports, signaling effective oversight of management. Delayed reporting may indicate managers withholding unfavorable information or manipulating results, a classic agency problem, Nsor-Ambala, (2021). Organizations invest in systems and controls to ensure timely reporting as a "bonding cost" that demonstrates commitment to transparency.

Financial reporting delays can increase agency costs through heightened uncertainty, reduced market efficiency, and potentially lower firm valuations. Regulators recognize this connection, which is why reporting deadlines are mandated and enforced to protect investor interests.

2.3.2 Signaling theory

The Signaling theory, which Spence (1973) proposed, denotes that the corporation will be urged to send signals to third parties in the form of financial report. The asymmetry of information between management, who is the agent who knows the company the best, and owners, is the reason financial reporting is encouraged. To close the gap between the two parties, management is encouraged to send signals to principals in the form of annual financial report. The corporation can encourage financial statement reporting in a timely way, but it has the option of delaying it. This is more as a result of the corporation receiving either good or bad news. Compared to corporations that receive bad news, organizations that receive positive news typically provide financial statement updates to investors more promptly (Fujianti, & Satria, 2020). The traits of the company are used as one reflection of the positive news that the company has received (Martínez-Ferrero et al., 2015). High profitability, the firm's age, and the size of the company are all indicators of the company's characteristics that can affect timely issuance of financial statement.

Signals are decisions made by management when management, rather than the investor, is aware of information that is complete and correct about the internal workings of the firm as well as its future prospects. As a result, the manager must inform stakeholders about the company's status. Giving a signal can be accomplished through disclosing accounting data, such as by publishing financial statements.

Furthermore, management may speed up the reporting process in an effort to promptly declare improved performance. Therefore, any signs of positive outcomes may prompt the firm to request that the auditor complete an audit as soon as possible so that the good news can be conveyed to the shareholders or investors, enhancing the worth of the company by way of an increase in share price and receiving performance-based bonuses, among other things (Oussii & Taktak, 2018). Decreased profitability (specifically losses) carries a greater threat, including a chance of insolvency. Auditor time may therefore be increased as a result.

By spending more time auditing businesses that have bad news, auditors like to prevent future legal disputes (Roszkowska, 2021). Thus, this theory is found pertinent to the study as it seeks to provide theoretical basis for the specific objective. Drawing on the theoretical foundation outlined the study posits the null hypothesis:

H_0: Firms-related attributes do not have significant effect on timely reporting of listed family-owned firms in Nigeria.

2.4 Empirical Review

Ben Kwame (2018) evaluated the impact of corporate governance qualities and financial reporting lag on the financial performance of Ghanaian listed enterprises. The study employs 90 firm-year data for firms listed on the GSE from 2012 to 2014. To determine the financial reporting lag, each yearly report was analyzed and tagged individually. To offer framework for the variables under examination, descriptive analysis was performed. The major data analysis was then performed, which was followed by regression analysis. According to the regression study results, financial statement latency possesses a significant negative effect link with firm's performance. This negative indicator suggests that when a company's financial performance is strong (good news), the company is more likely to reveal the situation to the public, which has also been established by Mutiara et al., (2018).

Merryani and Astarani (2018) investigated the association between business attributes and audit committee size and Timeliness of Financial Reporting (TIM) among retail trade companies on the Indonesian Stock Exchange. This study concentrates on firm size, profitability, and leverage and audit committee size. Purposive sampling was utilized to obtain the sample size and secondary data from yearly reports from 2012 to 2016 were employed. While profitability and leverage are both adversely related to TIM, there is no significant connection between firm size and audit committee size and TIM. However, the study time scope was limited to a five-year period which negate Gujarati, et al., (2012) suggestion that longer period should be examined for more effective result.

Oraka et al., (2019) established a detrimental and statistically significant connection between firm size and timely financial disclosure of deposit money banks. The examined 16 banks traded on the Nigerian Exchange Group between 2009 and 2017 were examined. Data were gathered from the public financial records of the selected banks. The study employed analysis of variance and simple regression. In addition, according to Abdillah et al., (2019), profitability has statistically notable negative connection with timely financial reporting. The study investigated the elements that have an impact on an auditor's efficiency in completing the audit report as measured by audit report lag. Data were taken from the 77 manufacturing businesses listed on the Indonesian Stock Exchange between 2014 and 2016. The simple regression employed showed that the audit report lag would be shorter the more profit generated by the companies understudied. However, the study was limited to a three- year period, although the findings was still consistent with previous findings despites the changes in countries where the studies were carried out.

Profitability and timely financial disclosure have bad and highly significant relationship, according to Lukason and Camacho-Miano (2019). The study established the relationship between firm reporting delays and bankruptcy risk and its financial determinants. Data were collected from the companies' recognized financial report between years 2000 till 2014. The data were analyzed using logistic regression and the investigation stressed that high profitable firms report faster than firms with lower profit. However, the study examined a fifteen-year period, which is encouraged when compared with the study of Abdillah et al., (2019).

Suadiye (2019) investigated the consequence of corporate attributes on the promptness of financial reporting of corporations on Borsa Istanbul stock exchange. The study employed secondary data taken from the 2019 financial reports of 286 companies quoted in Turkey. The ordinary least square approach of multiple regressions discovered a strong and negative correlation between profitability and timely financial report, supporting the results obtained from the study of Lukason and Camacho-Miano (2019).

Fujianti and Satria (2020) investigated factors influencing timely completion of audit report in Indonesia. The variable examined include firm size, profitability, and corporate leverage. The research sample consisted of 91 manufacturing businesses listed on the Indonesia Stock Exchange (IDX) in 2015 and 2016. Random effect models were used to analyse the data. According to the findings, organization size and profitability can reduce the time use to complete audit report. The investigation explains that large organizations possess information and technology systems that increase internal control and accelerate financial statement presentation. High profitability motivates enterprises to deliver financial reports when appropriate, reducing the impact of audit report lag.

3. METHODS

The study employed longitudinal research design to employ a continuous or repeated measures to follow particular individuals over prolonged periods of time, which covers year 2012 to 2022 for the purpose of this study. All business with a minimum of 5% holding by an individual and more among family relatives were captured as family-owned firms and were consistently trading on the Nigerian Exchange Group as at 2012 till 2022 were considered for selection. As a result, seventeen (17) firms were selected as the sample size for the study.

The study adapted a model previous used by Aifuwa and Saidu (2020). The model developed to examine the effect of firms-related attributes on timely reporting is as stated below:

$TIM_{it} = \beta_0 + \beta_1 PROF_{it} + \beta_2 LVGE_{it} + \beta_3 FSZ_{it} + \beta_4 AUFE_{it} + \varepsilon_{it}$……...........(i)

Where:
TIM= Timely Reporting;
β_0 = Constant;
PROF = Profitability;
LVGE= Leverage;
FSZ= Firm Size;
AUFE= Audit Fee;
β_1, β_2, β_3, β_4 = Coefficient of explanatory variables;
ε = Standard error.

Pooled, fixed and random effects test were performed together with Hausman effect, and Breusch and Pagan LM tests to determine the most efficient model to interpret. However, due to identified heteroscedatiscity problem, panel corrected standard error was used.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Descriptive statistics for the independent as well as dependent variables of interest were examined in the study. Each variable was analyzed in terms of its mean, standard deviation, maximum, minimum, and Jacque-Berra. The descriptive statistics for the study are shown in Table 4.1. Particularly the table shows that the mean of timely reporting (TIM) among listed family-owned firms in Nigeria was 104.68 days with standard deviation of 73.09. The results specify that, it took almost 105 days for the firms under study to get their annual report signed by their external auditor from the date of financial year end. The maximum and minimum values stood at 538 days and 26 days respectively. The results suggested that there are some of the family-owned listed firms in Nigeria that did not issue their financial reports until after about 18 months, while the earliest period within which the reports were issued was 26 days after the financial year end. The Jacque-Berra test of normality indicates the-absence of normality in the distribution as the p-value of the Jacque-Berra is less-than 5%-level of significant. This was supported-by the result of skewness estimate which stood at 3.86 and with kurtosis at 19.35.

Also, the study reveals mean value of profitability (PROF) measured in terms of return on assets was 0.53 with a standard deviation of 21.72. The result reveals listed family-owned firms under study were able to make a return of about N0.53K for each unit of assets employed in the company. The study also shows that leverage (LVGE) had a mean value of 75.07 with a standard deviation of 57.93. Furthermore, the mean of firm size (FSZ) was 6.94 with a standard deviation of 0.86. The study find that the mean of audit fee (AUFE) was 3.86 with a standard deviation of 0.67

Table 4.1: Descriptive Statistics

	AUFE	FSZ	LVGE	PROF	TIM
Mean	3.863209	6.939251	75.07364	0.532941	104.6828
Median	3.900000	6.690000	61.80000	2.740000	87.00000
Maximum	6.030000	10.03000	395.4500	176.2700	538.0000
Minimum	2.600000	5.420000	13.87000	-119.6300	26.00000
Std. Dev.	0.673473	0.861331	57.93349	21.71716	73.09765
Skewness	0.992140	1.882204	3.298230	0.796853	3.857611
Kurtosis	4.670890	7.131436	15.26589	33.01942	19.35003
Jarque-Bera	52.43199	243.4080	1511.313	7041.372	2533.073
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	722.4200	1297.640	14038.77	99.66000	19471.00
Sum Sq. Dev.	84.36327	137.9919	624269.7	87724.13	988504.3
Observations	187	187	187	187	186

4.2. Test of Variables

4.2.1 Data Normality

Ordinary least square regression assumption include that the data is normally distributed. In other words, the observations follow a normal (Gaussian) distribution. Therefore, it is assumed that the population from which the samples were collected is normally distributed. However, the null hypothesis is that "the sample distribution is normal". If the probability statistics of the test are significant, it indicates that the distribution is non-normal. This study adopts the position of Mendes and Pala (2003), who concluded that Shapiro-Wilk test procedure for normality of data is the most powerful normality test. Therefore, residual normality test was conducted and the results are shown in Table 4.2.

From the Table 4.2, it was discovered that timeliness of financial reporting (prob>z = 0.000) is not normally distributed since the probability of the z-statistics as reveal by the Shapiro-Wilk test is significant at 1% significant level. The same can be said of profitability (prob>z = 0.000), leverage (prob>z = 0.000), firm size (prob>z = 0.000) and audit fee (prob>z = 0.000) since the probabilities of the z-statistics as revealed by the Shapiro-Wilk test are significant at 1% or 5% significant level. Furthermore, we employed the Spearman Rank Correlation to examine the relationship between the variables under study.

Table 4.2: Shapiro-Wilk Test for Normal Data

Variable	Obs	W	V	Z	Prob>z
tim	186	0.527	66.254	9.613	0.000
prof	187	0.575	59.830	9.382	0.000
lvge	187	0.621	53.377	9.120	0.000
fsz	187	0.798	28.367	7.671	0.000
aufe	187	0.925	10.518	5.396	0.000

4.2.2 Correlation Analysis

With non-normal distribution which the normality of data test result reveals, alternatives to the Pearson approach might be justified. The robustness of Spearman's versus Pearson's test has received relatively less empirical scrutiny. In one of the few studies, Fowler (1987) discovered that Spearman's r is more powerful than Pearson's r across a range of non-normal bivariate distributions. The power benefit of Spearman's r may be the result of rank-ordering causing outliers to contract toward the centre of the distribution (Gauthier, 2001). Upon this understanding and since the data follow a non-normal distribution, Spearman Rank Correlation technique is employed to find out the possible relationship between the variables of interest presented in this study and the results is as presented in Table 4.3.

Table 4.3: Spearman's Rank Correlation

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tim	1.000											
Prof	-0.104	0.314	0.086	0.173	0.123	0.104	0.025	0.117	1.000			
Lvge	0.013	-0.082	-0.160	-0.116	0.112	-0.081	-0.065	-0.065	-0.344	1.000		
Fsz	0.008	-0.254	0.425	-0.077	-0.036	0.598	-0.048	0.146	-0.060	0.120	1.000	
Aufe	0.085	-0.128	0.490	-0.063	-0.045	0.591	0.130	0.150	0.209	0.002	0.779	1.000

The spearman rank correlation result reveal that profitability (-0.104) is negatively associated with the dependent variable of timely reporting during the period under study. However, the result shows that the independent variables of leverage (0.013), firm size (0.008), audit fee (0.085) are positively associated to the dependent variable of timely reporting during the period under study. The results indicate the absence of multicollinearity since all the association are seen to be weak and moderate.

4.2.3 Multicollinearity Test

To confirm the absence of multicollinearity among the variables, we employed a more robust check of Variance Inflation Factor Test (VIF) the results of which is as presented in Table 4.4. The result of the VIF revealed absent of multicolliearity since each of the independent variables present VIF value below 10 rules of thumb with mean VIF of 1.95 which is also far below 10.

Table 4.4: Variance Inflation Factor Test of Variables

Variables	VIF	1/VIF
AUFE	4.29	0.233
FSZ	4.23	0.236
PROF	1.12	0.895
LVGE	1.11	0.901
Mean VIF	1.95	

4.2.4 Unit Root Test

Presence of unit root among the variables of regression model leads to spurious regression. Therefore, it is essential to know the order of the integration of the variables prior to model estimation in order to select the appropriate estimating method. Some models are efficient when the variables are order integrated at zero, while some are efficient at mixed order of integration. The study used multiple regression technique that took into consideration the fixed and random effect and can only be efficient when the variables are stationary at level. The study adopted Levin, Lin and Chu-t panel unit root test (common unit root process). The result of the test as presented in Table 4.5 below.

Table 4.5: Unit Root Test [Levin, Lin &Chu t] Levin,Lin & Chu-t

Variables	Normal statistics	P-value
TIM	-9.463	0.000
PROF	-4.845	0.000
LVGE	-7.296	0.000
AUFE	-11.990	0.000
FSZ	-3.682	0.000

As presented in Table 4.5, the panel unit root test based on test of common unit root process of Levin, Lin and Chi-t revealed that all the variables have no unit root problem or were found stationery (p-value <0.05).

Table 4.6 shows the regression-results of the test on the-effect of firms related attributes on timely reporting of listed family-owned firms in Nigeria. To enhance the reliability of the findings, all appropriate line regression assumption test on variables were performed to make-sure that the results represent best linear unbiased estimation and the results were presented alongside the regression for interpretation on Table 4.6.

The Hausman specification test was-conducted as suggested according to Gujarati, et al., (2012) to compares the estimates of the fixed and random estimators; with a null hypothesis of random effect model and an alternative hypothesis of fixed effect, the test helps to decide the appropriate model to use for the-study. The random effects (FE) results based on the Hausman test value (p= 0.179) was identified as the preferred estimation, but autocorrelation test using Wooldridge presents not significant value (p = 0.8826), suggesting no serial correlation in the error terms. Regarding heteroscedaticity test, the result presents significant value (p-value = 0.000), suggesting the presence of heteroscedaticity. Thus, the study could not interprete random effect results as a result of identified heteroscedaticity problem emanating from post-estimation test.

Identified problem of heteroscedaticity informed the need to employ a more robust and standard error correcting technique of panel standard corrected error which was used and the results were subsequently interpreted. The model's fitness was confirmed with p-value less than 0.05 level of significant (p-value = 0.000), although with a fairly low R^2 of 0.229. This suggests that the examined firms related attributes could only account for about 22.9% of systematic variations in timely reporting of listed family-owned firms in Nigeria.

Analysis of-the Panel Corrected Standard Error (PCSE) regression coefficients -reveals that three out of the four parameters, that is, Profitability {-0.016 (0.960)}; Firm size {-14.64(0.060)}; Audit fee {-1.744(0.890)} present negative effects, while Leverage {0.55 (0.000)} presents positive effect on timely reporting of listed family-owned firms in Nigeria. The implication is that improvement in the firms' financial performance in terms of returns on assets, increase in the firm size and audit fees paid by the sampled firms will reduce delay in timely reporting of the examined listed firms' financial reporting. However, the results-show statistical significance for leverage while, profitability, firm size and audit fee revealed insignificant influence on timely reporting of listed family-owned firms in Nigeria. Therefore, the study results indicate significant-influence for leverage while insignificant influence for profitability, firm size and audit fee on timely reporting of listed family-owned firms in Nigeria.

This result is in line with the position of Monua and Anis (2016) and Suadiye (2019) who confirmed that profitability have negative effect on timeliness of financial reporting of some selected listed entities on the Tunisian stock exchange and Borsa Istanbul stock exchange respectively. This-result is also in tandem-with the findings of Arowoshegbe, et al., (2017) which revealed that firm size has negative impact on timely financial reporting of some selected companies in Nigeria. However, the finding of this study is in contrast with Adebayo and Adebiyi (2016) who stated-that there is non-significance effect of leverage on timeliness of financial report of some selected banks on the Nigeria exchange group. Furthermore, Akingunola et al., (2018) results showed-that there is significant-relationship between profitability and timeliness of financial reporting in some selected companies listed on the Nigeria exchange group against the submission of this study.

4.6 Panel Corrected Standard Error (PCSE) regression coefficients

	(Pooled)	(FE)	(RE)	(PCSE)
Prof	-0.0162	-0.0268	-0.0162	-0.0162
	(-0.07)	(-0.11)	(-0.07)	(-0.05)
Lvge	0.551***	0.748***	0.551***	0.551***
	(6.53)	(4.65)	(6.53)	(3.78)
Fsz	-14.64	-39.95	-14.64	-14.64
	(-1.39)	(-1.26)	(-1.39)	(-1.88)
Aufe	-1.745	1.615	-1.745	-1.745

	(-0.13)	(0.07)	(-0.13)	(-0.14)
_cons	171.6***	319.5	171.6***	171.6***
	(4.23)	(1.44)	(4.23)	(8.15)
N	186	186	186	186
R^2	0.229	0.137		0.229
adj. R^2	0.212	0.032		
Wald chi2(7)		1.4e+05	53.83	25.33
Prob>chi 2		0.0000	0.0000	0.0000
Modified wald Heteroskedasticity:				
Chi2(17)				1.4e+05
Prob>chi2				0.0000
Breusch & Pagan LM Test:				
Chibar2(01)				1.3e+01
Prob>chibar2				0.000
Hausman:				
Chi2(7)				6.28
Prob > chi2				0.1795
Wooldridge AutocorrelationTest:				
F				0.023
Prob>F				0.8826

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Firms related attribute variables examined in the study revealed negative effect on timely reporting, except for leverage. Profitability, audit fee and firm size revealed statistically insignificant effect, while leverage presented statistically significant result.

5. CONCLUSION

In recent years, there has been a noticeable increase in the economic contribution of family-owned businesses in Nigeria. Listed family-owned firms are also regulated and directed by all regulatory bodies for listed companies.

Furthermore, Firms attributes when measured in terms of leverage had positive and significant effect on the timely reporting of the listed family-owned firms in Nigeria during the period, resulting to an increase in the timeliness of financial reporting. This conclusion is in accordance with the opinion that bad news is difficult to share, as a result the firms with high leverage delay their financial reporting. Profitability, firm size and audit fee insignificantly reduce the timely reporting of listed family-owned firms in Nigeria.

Theoretically, findings of the study provided support for signalling theory as the result potends that leverage send signal about their propensity to determine timely issuance of the Nigerian listed family-owned listed enterprises. Undoubtedly, these outcomes have theoretical implications for stakeholders of family-owned firms.

RECOMMENDATIONS

i. Listed family-owned firms in Nigeria should discourage highly geared capital structure, resulting to delay in the prompt reporting. Firms can place leverage on a reasonable benchmark, at which timely financial reporting will not be affected within the listed family-owned firms. In addition, smaller listed family-owned firms are encouraged to pay the most appropriate audit fee to external auditors because audit fee insignificantly reduce the timeliness of financial reporting of listed family-owned firms in Nigeria.
ii. Above all, in line with the descriptive statistics result on timely reporting, regulatory authorities such as Security and Exchange Commission should put in place deterrent measures that will make listed family-owned firms to issue their financial reports within stipulated 90 days as some of the firms are found of flout the directive.

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APPENDICES

Appendix I: Samples of Listed Family-Owned Firms in Nigeria used

S/N	Companies Names	Sector by stock exchange	Ownership percentage	Holders
1	Afromedia	Service	14.16%	Otunba Akinlola Irewunmi Olopade
2	Associated Bus Company	Service	37.16%	Mr F.Nneji
3	Courtville Investment	ICT	50.80%	Dr Adebola Akindele
4	Custodian Investment	Financial service	26.81%	Mr Wole Oshin
5	Cutix	Indusrial goods	10.50%	Uzodike Gilbert Obiajulu
6	Fidson Healthcare	Healthcare	33%	Dr Fidelis Ayebae
7	Ftn Cocoa Processors	Agriculture	23.60%	Mr. A. A. Aderonmu
8	Japaul Gold & Ventures Plc	Oil and Gas	5.62%	Mr Jegede Paul
9	Learn Africa (Longman)	Services	12.60%	Iwerebon Emeke Felix (Chief)
10	May & Baker Nig	Healthcare	41.80%	T. Y Danjuma
11	Mcnichols Consolidated	Consumer goods	15.86%	Mr I. Chimaraoke
12	Multiverse	Natural Resources	18.64%	Mr A.Fasina
13	Redstar Express	Services	19.60%	Koguna, Mohammed Hassan
14	Tantalizer	Services	26%	Mr. Mofoluso Ayeni
15	Tripple Gee & Company	Industrial goods	33%	Chief G.G Giwa
16	Vitafoam Nig	Consumer goods	13%	Bolanride Samuel Olaniyi
17	Zenith Bank	Financial service	11.30%	JIM Ovia

Source: Research's compilation from Nigeria Exchange Group Website (2023)