

Risk Disclosures and Market Value of Listed Construction/Real Estate Companies in Nigeria

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Abstract- Risk disclosure plays a crucial role in shaping investor perception and decision-making, and inadequate disclosures of firms risk management practices may turn out to affect the investors' confidence which may have adverse effect on the firms' market value. The main objective of this study was to determine the effect of risk disclosures on market value of listed construction/real estate companies in Nigeria from 2013 to 2022. The independent variable of this study being risk disclosure was proxied by credit risk disclosure, liquidity risk disclosure and market risk disclosure while the dependent variable being market value was proxied by earnings multiple. The research design adopted for this study was ex post facto because secondary data were used. The population of the study was 8 construction/real estate firms and purposive sampling technique was employed to select 7 companies. Ordinary least square regression was adopted to analyze and test the three hypotheses formulated for the study. The statistical software package employed was E-views version 10. The findings of this revealed that credit risk disclosure has a significant positive effect on earnings multiple of listed construction/real estate firms in Nigeria. Liquidity risk has a significant positive effect on earnings multiple of listed construction/real estate firms in Nigeria. And market risk disclosure has a significant positive effect on earnings multiple of listed construction/real estate firms in Nigeria. Based on these findings, it was concluded that risk disclosures have significant effect on market value of listed construction/real estate firms in Nigeria. Thus, it was recommended among others that the management of construction/real estate firms in Nigeria should focus on improving their credit risk management practices. This could involve implementing robust credit assessment processes, monitoring credit exposures effectively, and

disclosing relevant information related to credit risks in financial reports and other disclosures outlets.

Indexed Terms- Risk Disclosure, Market Value, Credit Risk, Liquidity Risk, Market Risk

I. INTRODUCTION

1.1 Background to the study

Risk disclosure plays a crucial role in shaping investors perception as investors rely on risk disclosures to make informed decisions about their competing investment choices. Understanding a firms' risk profile helps investors to assess the potential returns and risks associated with their investments. The quality and extent of risk disclosure can influence investor perceptions of a firm's risk profile, management competency, and future prospects, thereby affecting its market value. In the aftermath of financial scandals and market crises, there has been a growing emphasis on transparency and accountability in financial reporting. Regulators, investors, and stakeholders have heightened expectations for firms to disclose comprehensive information about their risks, operations, and financial performance.

According to Kothari et al., (2019) risk disclosure entails series of processes consisting of procedures to identify, measure, supervise, and control risk arising from organisational activities. Disclosure of financial risk information is important since it increases transparency, thus giving shareholders' more confidence and lowering their uncertainty about future cash flows (Bhagat & Bolton, 2019)). Institutions are encouraged not only to report their operational activities but also the risks associated with them as well as their strategy for and capacity to manage these risks (Borad, 2022). However, internal management

might sometimes choose to release some risk information to signal their competence and capability to handle risks and to distinguish themselves from the rest, which might translate into an improved reputation and some monetary gains (Handoko & Probohudono, 2022).

According to Borad (2022), a firm's market value is an economic concept that reflects the worth of company in market. The investor's assessment of a company's success is reflected in its market value. Firm market value can increase or decrease as a result of investors' perception of the vulnerability of the company to risks and potential threats. In general, every investor uses available information to make investment decisions. When convinced to invest in the stock of such companies, investors respond favourably to accessible information. Investors, on the other hand, respond negatively when public information allows them to avoid investing in such enterprises. Furthermore, investors are usually cautious to avoid investing in stocks that would result in losses (Okpo & Aruwa, 2021).

Transparent and comprehensive risk disclosure can enhance investor confidence by providing a clear understanding of the firm's risk profile and management strategies. This increased confidence may lead to higher investor demand for the firm's securities, driving up its market value. Detailed risk disclosure reduces information asymmetry between the firm and investors, allowing investors to make more informed investment decisions. This reduction in information asymmetry can lead to a decrease in the firm's cost of capital and an increase in its market value (Botosan & Plumlee, 2002). Ng and Yuce (2019) noted that firms that disclose thorough risk management practices may be perceived as better equipped to identify and mitigate risks, which can positively influence investor perceptions of the firm's future prospects and resilience. This positive perception can lead to a higher market valuation. The relationship between risk disclosure and market value is further strengthened by signally theory. This theory shows how companies use risk disclosure as a signal to communicate their risk management practices and financial health to both owners, potential investors and also to the public.

The outcome of the empirical review shows that more researches are still needed as risk disclosure seems not to receive so much attention in the literature. Some gaps were noticed especially when it comes to the measurement of market value. It was observed that most of the studies used market capitalization, Tobin's Q and earnings yield (Bata & Sofian, 2022; Jain & Raithatha, 2022; Latif et al, 2022; Musneh et al, 2021) as a measure of firms' value while this study made use of earnings multiple. It was also observed that most of the studies used shorter perspectives (less than ten years) and did not also cover up to the most recent financial year which is 2022. Another major gap identified in the empirical review was that most of the studies concentrated on other sectors like banks, consumer goods companies, health care companies, ICT companies (Nkanga et al., 2023); Okpo & Aruwa (2021); Anetoh et al. (2021) but the construction/real estate firms seemed to be ignored. Other researchers focused on risk management committees (Malahim, 2023; Akpan & Akai, 2022), and other measures of risk (Jagirani et al 2023; Anetoh et al., 2021). Worst still, there was no consensus in the literature on the actual effect of risk disclosures on market value of firms in Nigeria because of divergent findings. Thus; it was because of the above identified gaps that this study was undertaken.

II. REVIEW OF RELATED LITERATURE

2.1.1 Risk disclosures

Risk disclosure refers to the process of providing information about the risks faced by an entity in its financial statements and other relevant reports (Eshiet, Nmesirionye, Esuma & Okpo, 2023). It involves communicating the nature, extent, and potential impact of various risks on the entity's financial position, performance, and prospects. The aim of risk disclosure is to provide transparency and enable users of financial information to make informed decisions. Risk disclosure is the practice of revealing information regarding potential risks, uncertainties, and vulnerabilities that may impair an organization's capacity to achieve its goals (Botosan & Plumlee, 2002). It entails communicating both qualitative and quantitative risk information, such as the nature, magnitude, likelihood of occurrence, and potential repercussions (International Accounting Standards Board [IASB], 2018). Every company has different

risks. Investors need to know the risks that the company will face in producing values and strategies it will use to deal with these risks. Information about company's risk can help the investors to identify types of risks the company will face and to measure the company value through stock prices forecast (Beretta & Bozzolan, 2004; Mousa & Elamir, 2014). Therefore, the key goals of risk disclosure are to improve organizational openness, accountability, and risk management procedures (Firmansyah et al., 2020). Organizations that disclose risks provide stakeholders including investors, creditors, employees, and regulators with a full perspective of the potential threats and uncertainties that could damage the organization's financial status and operations. Risk disclosure is intended to help stakeholders make informed decisions by assessing the organization's risk appetite and understanding its capabilities to effectively manage and mitigate risks (Agrawal & Chadha, 2005).

For investors, an investment has two outcomes; risk and reward. Risk of loss is the worst that can happen; reward on the other hand is the favourable outcome. It is certain that risk information disclosure can enhance risk management for investors. According to Cabedo & Tirado (2014), a lack of risk management knowledge may lead to investors making poor investment decisions. Investors make investment or disinvestment decisions by weighing both the expected rewards and the level of risk associated with a specific investment project. According Umo (2023) If investors fails to identify firms' true major risk elements, they will be unable to estimate the firms' actual risk level. This would then lead to investors making poor investment decisions, which could result in a large loss or tragedy for the investors. Second, risk disclosure is required for creditors and lenders to assess an organization's creditworthiness and financial health. It allows them to assess the risks of giving credit or loans and make sound lending decisions (Francis, Nanda & Olsson, 2008).

2.1.2 Credit risk disclosure

Credit risk refers to the risk of financial loss to an entity if a counterparty fails to fulfill its contractual obligations. It arises from the possibility that customers, trading partners, or other counterparties may default on their payment obligations, resulting in

potential loss of revenue or inability to recover the full value of assets (IFRS 7). According to Chen and Pan (2012) credit risk is defined as the extent to which the value of loans and derivatives fluctuates due to changes in the credit quality of borrowers and counterparty. Coyle (2000) describes it as the loss from inability or refusal of customer to pay what he owes to pay. In other words, credit risk is the danger of incurring a monetary loss as a result of a reduction in the creditworthiness of counterparty in a financial transaction (Liu et al., 2014). The default risk, which is the risk that a counterparty will not fulfil contractual obligations, is the source of credit risk. The lender bears the majority of the risk, which includes lost principal and interest. Disruption loss can be total or partial, and it can occur in a variety of circumstances, such as a company that is unable to repay funds to a lender.

According to Folajimi & Dare (2020), Robert Merton introduced credit risk theory in 1974 with his theory of default or default model, which is the basic theory of credit risk. They suggested a model for analyzing a company's credit risk by defining its stock as a call option on its assets. The structural approach and the intensity-based approach (also known as the reduced form approach) are the two basic methodologies for modelling credit risk. Clifford V. Rossi developed three major ways to gauging credit risk based on the Merton model. Credit spreads, credit portfolio management, and loss distribution created by Monte Carlo simulation are examples of these. To limit the lender's risk, the lender may do a credit check on the potential borrower, require the borrower to get suitable insurance, such as mortgage insurance, or seek third-party security or guarantees. In general, the higher the risk, the higher the interest rate those debtors must pay on their debt (Owojori et al., 2011).

2.1.3 Liquidity risk disclosure

Liquidity risk refers to the risk that an entity may encounter difficulties in meeting its financial obligations as they fall due. It is the risk of being unable to obtain sufficient funds to fulfill short-term liabilities or fund ongoing operations, leading to potential financial distress (IFRS 7). Liquidity risk can arise from a variety of factors, including unexpected cash outflows, difficulties in accessing credit markets, changes in market conditions, and variations in the

timing and amount of cash flows. It can also be influenced by factors specific to an entity, such as its financial structure, ability to generate cash flow, and availability of liquid assets. According to Lopez (2008), liquidity risk is the risk that a company may be unable to satisfy its current and future income and guarantee demands. This is both typical and unexpected, and it has no effect on the general financial situation or its day-to-day operations. Liquidity risk poses challenges to organizations' ability to fund their operations, make timely payments, and take advantage of investment opportunities.

Inadequate liquidity management can also harm an organization's reputation, undermine investor trust, and lead to systemic concerns in the financial system as a whole (Umo, 2023). Organizations must manage liquidity risks effectively in order to preserve financial stability, assure operational continuity, and capitalize on business possibilities. Maintaining adequate quantities of liquid assets, diversifying financing sources, making contingency plans, and developing relationships with liquidity providers, such as banks or access to emergency liquidity facilities, are all strategies for controlling liquidity risk.

2.1.4 Market risk disclosure

According to IFRS 7, market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market prices. It encompasses three main types of risk: interest rate risk, currency risk, and other price risk. Interest rate risk This refers to the risk that the value of a financial instrument will be affected by changes in market interest rates. For example, if an entity holds fixed-rate debt and interest rates increase, the fair value of that debt may decrease. Currency risk arises from exposure to fluctuations in foreign exchange rates. Entities with transactions or investments denominated in foreign currencies may be impacted by changes in exchange rates, which can affect their financial results and cash flows. According to Hull (2018), other market risk includes risks related to equity prices, commodity prices, and other factors that can influence the value of financial instruments. For instance, entities holding equity investments may face the risk of changes in stock prices impacting the fair value of those investments.

Market risk directly impacts investment performance and portfolio value. Adverse market movements can lead to losses, decreased asset values, and reduced investment returns. Effective management of market risk involves diversification of investments across asset classes and geographical regions, hedging strategies using derivatives, and active portfolio monitoring and rebalancing (Hull, 2018). IFRS 7 requires entities to disclose information about their exposure to market risk, including quantitative and qualitative details of their risk management strategies. These disclosures assist users of financial statements in evaluating the nature and extent of market risk faced by an entity and its potential impact on financial performance and position.

2.1.5 Market value

According to Borad (2022) a firm's market value, is an economic concept that reflects the value of a company. Charles and Uford (2023) mention that, it is the value that a company is worth at a certain point in time. In theory, it is the sum required to purchase or take over a corporate entity. The investor's assessment of a company's success is reflected in its firm's market value. A company's market value is its value as reflected in the stock exchange. A company's market value is influenced by various factors, including financial performance, growth prospects, industry conditions, market sentiment, and cost of capital. Strong financial indicators such as; increased revenues, profitability, positive cash flows, generally leads to a higher market value. Damodaran (2012) observed that strong growth prospects, successful innovation, and market leadership can also positively impact firm value. Additionally, macroeconomic conditions, industry trends, and market sentiment play a crucial role in shaping a company's firm value. Market value in this study was measured using earnings multiple

Earnings multiple or price to earnings ratio compares a company's share price to its earnings per share (EPS). It indicates how much an investor is willing to pay for each naira of earnings generated by the company (Uford, 2017). A high earnings multiple suggests a higher market value relative to the earnings. The earnings multiple is a financial metric that measures the valuation of a company's stock by comparing the current market price per share to its

earnings per share (EPS). It is commonly used by investors to assess the relative value of a stock and to determine if it is overvalued or undervalued. A high earnings multiple suggests that investors are willing to pay a premium for the stock, indicating that the market has high expectations for the company's future earnings growth (ICAN, 2021). Conversely, a low earnings multiple may indicate that the share is undervalued and may represent a buying opportunity. It is calculated as given below;

$$\text{Earnings multiple} = \frac{\text{Earnings per share}}{\text{Market price per share}}$$

2.1.6 Risk disclosure and market value of firms

Risk disclosure refers to the process of providing information to stakeholders about the risks faced by a company or an investment. On the other hand, market value represents the collective opinion of the market regarding the worth of the company. The relationship between risk disclosure and market value is often characterized by increased transparency and investor confidence. When companies provide comprehensive and transparent risk disclosures, it enhances stakeholders' understanding of the risks involved in investing in the company. This transparency can build trust and confidence among investors, leading to increased demand for the company's shares.

According to Ruwita and Harto (2013), effective and efficient risk disclosure practices can attract more investors who are seeking reliable and transparent information about the risks they are exposed to. As a result, companies with effective risk disclosure practices may experience higher investor interest and demand for their shares. Increased investor demand can drive up the company's stock price, leading to higher market capitalization (Abdullah, 2019). Conversely, inadequate or insufficient risk disclosure practices may result in a lack of transparency, leaving investors uncertain about the risks associated with investing in the company. This lack of transparency can erode investor confidence, leading to reduced demand for the company's shares and potentially lower market capitalization (Abdullah, 2019). The literature provides comprehensive results on the influence of risk disclosure on business value. Düsterhöft et al. (2020), Sumardani & Handayani (2019), Abdullah (2019), Bravo (2017), and Abdullah et al. (2015)

discovered that risk disclosures positively enhance firm value. Furthermore, risk disclosure favourably influences firm reputation, which will benefit firm value improvement, given that the firm's reputation is an important aspect in determining firm value (Louhichi & Zreik 2015). On the other hand, Abdullah (2019) emphasizes that each company must understand how much risk to disclose because not all organizations that do so have improved value as evidenced by (Makhlouf et al., 2020; Haj-Salem et al., 2020) found negative effect. Negative relationship had also been found in the study of Jain & Raithatha (2022) and supported by Haj-Salem et al., (2020), Bokpin (2013) and Wang et al., (2013) stating that risks disclosure is a costly process and therefore negatively affects the firm. Thus the following hypotheses were formulated to guide the study;

Ho₁: Credit risk disclosure has no significant effect on earnings multiple of construction/real estate companies in Nigeria

Ho₂: Liquidity risk disclosure has no significant effect on earnings multiple of listed construction/real estate companies in Nigeria

Ho₃: Market risk disclosure has no significant effect on earnings multiple of listed construction/real estate companies in Nigeria

2.2 Theoretical framework

The tenet of signalling theory revolves around the fact that individuals or entities with private information can use signals to convey that information to others. In the context of financial markets, this theory suggests that companies may strategically send signals to investors and stakeholders to communicate their true value, financial health, risk management practices and future prospects. According to Adegbe et al., (2019), this theory explains voluntary disclosure in corporate reporting. According to Nkanga et al (2023) voluntary disclosure explains the signalling process in which companies disclose non-financial and voluntary information than the mandatory information in order to signal the stakeholders that they are responsible corporate citizens. Dumay et al., (2018) explain that this theory describes the behaviour of the sender, who focused on how to communicate and the receiver, who focused on how to infer the received signal.

Signalling theory recognizes the presence of information asymmetry between management

(insiders) and investors (outsiders). Management have more detailed information about their operations, financial performance, and risk exposure than outside investors. Risk disclosure serves as a signal to reduce this information asymmetry by providing additional information about the company's risk profile and risk management practices. This theory is relevant to this study because risk disclosure is used as signalling tool used by companies to communicate their risk management practices and financial health to both owners, potential investors and the general public at large. Companies that communicate potential risks openly may be perceived as proactive and responsible corporate citizens, which can lead to increased investor confidence and positive impact on market capitalization.

2.3 Empirical framework

Jagirani, Chee & Kosim (2023) assessed the relationship between firm value and financial risks, as mismanaged risks resulted in a decline in firm value. This study aimed to explore the moderating effect of capital adequacy on the relationship between financial risks and firm value for listed banks in Pakistan. The findings showed that a higher capital adequacy ratio (CAR) positively impacts firm value (Tobin's q) and also moderates the relationship between financial risks and firm value. These results highlighted the importance of managing financial risks and maintaining a sufficient capital adequacy ratio to enhance firm value for banks in Pakistan. Malahim (2023) examined the impact of risk management committees (RMCC) and voluntary risk disclosure on the value of Jordanian banks from 2014 to 2021, measured by the market to book ratio (MTBR). The findings revealed that risk management committee qualifications in accounting or finance negatively affect bank value, while other variables, such as risk management committee expertise, dual membership with the compensation committee, independence, and executive membership, significantly impact the value of Jordanian banks.

Nkanga et al (2023) examined the effect of voluntary disclosures on firms' value taking samples from deposit money banks listed on the floor of the Nigeria Exchange Group from 2012-2021. The independent variable of the study being voluntary disclosure was proxied by social donations & gifting disclosure

(SODD) and employee's health and safety disclosure (EHSD) while the dependent variable being firms' market value was proxied by Tobin's Q. Dummy Least Square Variable regression was adopted to analyze and test the two hypotheses formulated for the study. The findings of the study revealed that voluntary disclosure has significant effect on market value of listed deposit money banks in Nigeria. Bata and Sofian (2022) scrutinized the relationship between enterprise risk management disclosures and firm value through profitability in banking companies listed on the Indonesia Stock Exchange from 2018 to 2020. The findings revealed that profitability have no significant mediating effect on the relationship between corporate risk management and firm value.

Akpan and Akai (2022) examined the effect of risk management committee on financial performance in Nigeria employing samples from selected deposit money banks that are quoted on the floor of the Nigerian Exchange Group for the period 2011-2020. The result showed that risk management committee size has a negative and insignificant effect on financial performance; risk management committee independence has a negative and insignificant effect on financial performance; and risk management committee diligence has a positive and significant effect on financial performance. Jain and Raithatha (2022) scrutinized the relationship between risk disclosures and firm value, with a focus on the moderating effect of effective governance. However, the study revealed that better governance mitigates the negative impact of risk disclosures on firm value.

Latif, Mohd and Kamardin (2022) investigated the relationship between risk disclosure practices, corporate governance mechanisms, and the performance of listed companies in Malaysia's emerging economy. The findings revealed that risk disclosure significantly impacts firm performance. Moreover, the study identified a significant association between firm performance and audit committee monitoring, while the presence of a risk management committee showed insignificant results. Okpo and Aruwa (2021) investigated the relationship between voluntary risk disclosure and investor behaviour in the Nigerian capital market, focusing on the period from 2015 to 2019. The research employed an ex-post facto design and examines 196 firms listed

on the stock exchange. The sample of 60 firms was selected using convenience and stratified sampling techniques. Investor behaviour, proxied by market capitalization, served as the control variable, while risk disclosure in annual reports was the independent variable. Descriptive statistics and a simple regression model were used for data analysis, revealing that voluntary risk disclosure significantly influences investor behaviour. Anetoh et al. (2021) explored the impact of credit and operational risks on the firm value of listed deposit banks in Nigeria. The findings revealed that credit risk negatively affects the firm value of deposit money banks, while operational risk has a positive effect on their firm value.

Arora, Saggarr and Singh (2021) assessed the impact of risk disclosure on corporate reputation in India. The study used two measures of corporate reputation - market capitalization and excess of market value over book value - along with automated content analysis to measure risk disclosure. The findings revealed that corporate risk disclosure positively influences corporate reputation. Kwashie et al., (2021) examined the impact of credit risk, specifically non-performing loans, on the financial performance of commercial banks in Ghana. The results revealed that non-performing loans negatively affect both measures of financial performance, and the monetary policy rate also has a negative impact, though insignificant for the economic value-added measure. Musneh, Abdul & Arokiadasan (2021) studied the influence of liquidity risk on stock returns in the industrial products and services sectors of Bursa Malaysia from January 2000 to December 2018, using a monthly frequency dataset of 149 firms. The results indicated that investors demand a liquidity premium for stocks with illiquidity that co-moves with market illiquidity and market return. Raithatha (2021) explored the influence of risk disclosures on firm value and investigated whether effective governance plays a moderating role in this relationship. The findings revealed that higher levels of risk disclosures are associated with lower firm value. However, the study also demonstrated that sound governance practices can mitigate the negative impact of risk disclosures on firm value.

III. METHODOLOGY

The research design adopted for this study was *ex-post facto*. This design was suitable for this study because the data used was secondary. The population of this study consisted of all construction/real estate companies listed on the floor of the Nigeria Exchange Group for the period 2013-2022. As at December 2022, the total number of construction/real estate companies listed on the floor of Nigerian Exchange Group was eight. Purposive sampling technique was adopted to select 7 construction/real estate companies with homogeneous data.

Secondary source of data was employed in this study and these data were obtained from the annual report of the studied firms and the Nigeria Exchange Group Factbook. The data for independent variables were obtained using the researcher developed checklist. The un-weighted risk disclosure approach was used where a firm was scored (1) for an item of credit risk, liquidity risk and market risk disclosed in the in the annual report and (0) if it was not disclosed. Then, the risk disclosure index for each of the risk parameters was computed as a ratio of the risk disclosure score to the firms' maximum possible expected disclosure. This is expressed as;

$$\text{Risk disclosure index} = \frac{\text{Actual disclosure}}{\text{Expected disclosure}}$$

The data analysis technique adopted for this study was the panel regression analysis was used in analysing the data and the statistical package employed was E-views version 10. The model for this study is presented below:

$$\begin{aligned} \text{Market value} &= f(\text{Risk disclosure}) \\ \text{Earnings Multiple} &= f(\text{Credit risk disclosure, liquidity risk disclosure, market risk disclosure}) \\ \text{EM}_{it} &= \beta_0 + \beta_1 \text{CRRD}_{it} + \beta_2 \text{LIRD}_{it} + \beta_3 \text{MARD}_{it} + \mu_{it} \quad (1) \end{aligned}$$

Where:

- EM = Earnings Multiple
- CRRD = Credit risk disclosure
- LIRD = Liquidity risk disclosure
- MARD = Market risk disclosure
- β_0 = Constant
- β_1 - β_3 = Slope Coefficient

μ = Stochastic disturbance
i = *i*th firms
t = time period

The variables used in this study and their measurements are presented in table 3.1 below;

Table 3.1: Measurement of variables

Variable	Measurement	A priori sign
Earnings Multiple (Dependent variable)	$\frac{EPS}{MPS} \times 100$	
Credit risk disclosure (Independent variable)	Dummy variable "1" if a credit risk item is disclosed and '0' if other wise	+
Liquidity risk disclosure (Independent variable)	Dummy variable "1" if a liquidity risk item is disclosed and '0' if other wise	+
Market risk disclosure (independent variable)	Dummy variable "1" if a market risk item is disclosed and '0' if other wise	+

Source: Author's compilation (2024)

IV. DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Data analysis

The data in this study was analysed using panel regression analysis and the basic assumptions of least square regression were tested as given below;

4.1.1 Multicollinearity

Multicollinearity is a statistical phenomenon that occurs when two or more independent variables are highly correlated with each other. This can be detected by observing the Variance Inflation Factor (VIF) and it is assumed to be present when the VIF is above 10. The diagnostic test is shown below.

Table 4.1 Variance inflation factor analysis for the independent variables

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	1.653364	2205.934	NA
CRRD	0.035404	2197.801	2.027890
LIRD	0.012763	34.91929	1.109558
MKRD	0.033424	1.335658	1.159039

Source: Author's computation (2024)

From the VIF statistics, all the independent variables have VIFs of less 10. Therefore, there is no multicollinearity in the model.

4.1.2. Homoscedasticity test

Homoscedasticity holds that error terms of the regression model should have a constant variance across all levels of the independent variables (Smith, 2005). Homoscedasticity in E-views can be assessed through the Breusch-Pagan Godfrey test for heteroskedasticity. The null hypothesis for this test states that there is no heterogeneity in the model and the alternate states that there is heterogeneity in the model, at 5% confidence level. The test is presented below.

Table 4.2 Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	8.521714	Prob. F(5,54)	0.0000
Obs*R-squared	26.46260	Square(5)	0.0001
Scaled explained SS	10.19200	Prob. Square(5)	0.0700

Source: Author's computation (2024)

From the result above, the Obs R-squared value (26.46260) has a p value of 0.0001 (<0.05). Therefore, we reject the null hypothesis which implies that there is presence of heterogeneity in the model. The result shows that the assumption of homoscedasticity of the pooled OLS regression has been violated. Hence, the researcher re-specifies the model to control for this violation by employing either the fixed and random effects panel regression as recommended by (Greene, 2003).

4.1.3 Panel Fixed and Random Effect Regression
 Earlier on, the variable of this study showed presence of heteroskedasticity. As noted by Ajibolade and Sankay (2013), the fixed-effects model which is often the main technique for analysis of panel data does not account for heterogeneity in both the intercept and the slope. It accounts for individual heterogeneity only in the intercept. On the other hand, the random-effects model accounts for individual heterogeneity in both the intercept and the slope. In the light of the foregoing, this study employs the panel fixed and random effect regression to control the heterogeneity

effect that is present in the pool OLS regression models but for this not to be voluminous, the Hausman test was used to determine which technique is suitable for this study.

4.1.4 Hausman Test

To determine whether to use fixed effect regression or random effect regression for this study, the null hypothesis is that random effect model is suitable for the study and the alternate is that fixed effect model is suitable. The test is presented thus;

Table 4.4 Correlated Random Effects - Hausman Test
 Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9.555432	5	0.1603

Source: Author’s computation (2023)

The Hausman test shows a p value of 0.1602. So, the null hypothesis is accepted that Random Effects model is suitable for the data.

4.1.5 Random Effects Model (REM) regression

Table 4.5 Regression analysis for the effect of risk disclosure on earnings multiple

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.734828	0.867802	3.151444	0.0027
CRRD	0.289309	0.126988	2.278243	0.0267
LIRD	0.047414	0.076246	2.621864	0.0366
MKRD	0.088249	0.123386	2.715224	0.0236

Effects Specification

	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	0.143120	1.0000

Weighted Statistics

R-squared	0.389619	Mean dependent var	0.625833
Adjusted R-squared	0.332074	S.D. dependent var	0.212629
S.E. of regression	0.212062	Sum squared resid	2.428404
F-statistic	12.06316	Durbin-Watson stat	1.637722

Prob(F-statistic)	0.000000		
Unweighted Statistics			
R-squared	0.389619	Mean dependent var	0.625833
Sum squared resid	2.428404	Durbin-Watson stat	1.637722

The random effect regression model above shows an F-statistic of 12.06316 with p-value of 0.00000 indicating that overall, the relationship between risk disclosure and earnings yield is a significant one. The model gave an R-squared value of 0.389619 which means that 39% of the changes in the dependent variable can be explained by the independent variables of this study. However, the unexplained part is captured in the error term.

4.2 Discussion of results

- Credit risk disclosure and earnings multiple

The results obtained from the random effects regression model in table 4.5 revealed that credit risk disclosure (Coef = 0.289; p- value 0.023] has a significant and positive effect on multiple firms in Nigeria. This implies that a unit increase in credit risk disclosure would increase the earnings multiple of construction/real estate firms in Nigeria by 27%. This could be attributed to the fact that higher risk disclosure practices can attract more investors who are seeking reliable and transparent information about the risks they are exposed to. The finding of this study is supported by the studies of Abdullah (2019), and Bravo (2017), who discovered that risk disclosures positively enhance firm value, which can be a favourable indication to boost the risk disclosures in firms' annual reports. However, the findings negate the research of Jain and Raithatha (2022); Haj-Salem et al. (2020); and Wang et al. (2013) who stated that risks disclosure is a costly process and therefore negatively affects the firm. Jain & Raithatha (2022) also concluded that proper board governance can mitigate this negative effect.

- Liquidity risk disclosure and earnings multiple

The results obtained from the random effects regression model in table 4.5 revealed that liquidity risk disclosure (Coef = 0.047; p- value 0.0366] has a

significant positive effect on the earnings multiple of construction/real estate firms in Nigeria. This implies that a unit increase in liquidity risk disclosure would increase the earnings multiple of construction/real estate firms in Nigeria by 5%. Investors may be more sensitive to liquidity risks in volatile or uncertain market settings, and companies with transparent and well-managed liquidity risk disclosures may be seen as safer investment havens. The finding of this study support the work of Okpo and Aruwa (2021) who concluded that companies' voluntary disclosure of risk-related information positively affects investor behaviour. However, it negates the study of Jain and Raithatha (2022) who noted that higher risk disclosures are associated with lower firm value.

- Market risk disclosure and earnings multiple

The results obtained from the random effects regression model in table 4.5 revealed that market risk disclosure (Coef = 0.088; p- value 0.0236] has a significant positive effect on earnings multiple of construction/real estate firms in Nigeria. This implies that a unit increase in market risk disclosure would increase the earnings multiple of construction/real estate firms in Nigeria by 9%. This could be attributable to the fact that, companies with effective risk disclosure practices may experience higher investor interest and demand for their shares. Increased investor demand can drive up the company's share price, leading to higher market capitalization as well as higher earnings multiple. In times of higher market volatility and uncertainty, investors may become more risk-averse and seek companies that demonstrate a clear understanding of market risks and have adequate risk mitigation strategies in place. Companies with robust market risk disclosures may be more attractive to risk-averse investors, leading to increased demand for their shares. The findings of this study negate the work of Raithatha (2021) who

revealed that higher levels of risk disclosures are associated with lower firm value.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of this study, it was concluded that risk disclosure has significant effect on market value of listed construction/real estate companies in Nigeria. Specifically, it was concluded that credit risk disclosure, liquidity risk disclosure and market risk disclosure have significant effect on earnings multiple of construction/real estate firms in Nigeria. Based on the findings of this study, it was recommended that the management of construction/real estate firms in Nigeria should focus on improving their credit risk management practices. This could involve implementing robust credit assessment processes, monitoring credit exposures effectively, and disclosing relevant information related to credit risks in financial reports and other disclosures. Also, the management of construction/real estate firms in Nigeria should prioritize sound liquidity risk management practices. This includes maintaining appropriate levels of cash and liquid assets, establishing risk management frameworks to monitor liquidity positions, and developing contingency plans to address potential liquidity shocks. Moreover, firms should therefore pay attention to providing comprehensive and transparent market risk information to investors. This may involve disclosing information about interest rate risks, exchange rate risks, and other relevant market factors that could impact the firm's financial performance. By enhancing market risk disclosure, these firms can help investors better understand and assess the firm's exposure to market fluctuations.

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