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Effect of Ownership Structure on Corporate Risk among Firms Listed at the Nairobi Securities Exchange, Kenya

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Abstract

Ownership structure of companies as well as corporate risk management are critical features in corporate governance. The relationship between ownership structure and corporate risk is partially studied and existing scholarly findings are contentious hence the need for this study. The aim of this study was to determine the effect of ownership structure on corporate risk among firms listed at the Nairobi Securities Exchange (NSE), Kenya .The study was informed by Agency Theory as the anchoring theory. Other theories used in the study are Mean Variance-Portfolio Theory, the Stewardship Theory and Resource Dependence Theory (RDT).This study was guided by the positivist research approach. Causal survey research design was adopted because the study intended to establish the cause-effect relationship between the variables of the study. The study population was sixty (60) firms at NSE as at 31st December 2021. Secondary data was collected across firms and overtime hence panel design. For the consistency of data, this study was limited to companies that were listed for 11 year period (2011 to 2021) and excludes those that were listed after the year 2011 or delisted or suspended before the year 2021. Panel data obtained covered a span of 11 years; 2011 to 2021 resulting to resulting to 647 observations .The data was analyzed using STATA software. During data analysis, descriptive and inferential statistics were computed. Descriptive statistics comprise the means, minimums, maximums, range and standard deviations .Inferential analysis included panel model estimation. In this study, linear regression was used. The results indicate that foreign ownership, corporate ownership, and diffuse ownership are negatively related to corporate risk. However managerial ownership and government ownership are positively related to corporate risk. The study recommends spreading ownership among a large number of shareholders to reduce the risk of one shareholder having too much control and potentially making decisions that are not in the best interest of the company.

Keywords: *Ownership Structure, Agency Cost, Board Independence, Corporate risk, Nairobi Securities Exchange*

Introduction

The financial crisis of 2007 brought to the fore the role of corporate governance in reducing corporate risk. Ownership structure of a firm is important in corporate governance .Shareholders of a firm can exert influence on the board and managers. Principal-agent conflicts may arise as a result of the separation of ownership and management responsibilities and the presence of asymmetric information. Managers' self-interest may cause them to misuse corporate assets, such as by pursuing excessively risky or imprudent projects at the expense of capital providers or owners of the firms (Jensen and Meckling, 1976; Shleifer and Vishny, 1986). Ownership structure of a firm may affect the incentives of managers and therefore the

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efficiency of the firm and corporate risks. The study hypothesized that ownership structure has a direct influence on corporate risk.

In this study, ownership structure is defined as how a firm's equity is distributed in terms of votes, capital and identity of the shareholders as defined by Jensen and Meckling (1976).The definition is more comprehensive. Ownership structure has been measured in several ways.In the context of this study, ownership structure was measured by both ownership concentration (whether diffuse, diverse or dispersed) and ownership identity which is shareholders' actual identity in terms of foreign ownership, managerial ownership, government ownership and corporate ownership. These measures have been used successfully by Demsetz and Lehn (1985) and Ongore (2011) in similar studies.

Myers, (2015),Doff (2008) Ding, et al. (2015), Díez-Esteban et al (2017) define corporate risk as the exposure a firm has to factors that will lower its profits or lead it to fail.Firms operate in growingly complex, dynamic and unpredictable environments and therefore, understanding and managing corporate risks is important (Caldarelli et al 2016; Tran, & Le, 2020). A firm's ability to monitor, assess and evaluate risks impacts their ability to make informed decisions on what business activities to venture. Some of the risks include economic, financial, operational, fraud, reputation, compliance and competition risks. In order for firms to align strategic plans to their objectives and to compete favorably in the volatile business environment, the firms have to define the level of risks it faces and how to minimize the risks. Several firms have been delisted at Nairobi Securities Exchange (NSE) for not being able to cope with volatile business environment thus making negative returns to shareholders. The delisted firms include ARM Cement PLC, National Bank of Kenya, Deacons (EA) PLC, KQ and Mumias (NSE, 2021). The delisting of ARM Cement PLC was due to declined profitability arising from corporate risk exposure and delisting of National Bank of Kenya came about as a result of skewed ownership structure and board inefficiency (NSE, 2021).

Corporate risk is measured in several ways. They include a model-based measure such as the Altman's Z-score, market based measure such as stock returns volatility, and accounting based measure such as variability in firm's profitability or Beta (measures stock volatility in relation to the whole market). Faccio, et al. (2011) and Tran and Le (2020) measured corporate risks using volatility of firm's profit. Koerniadi et al. (2014) and Haider and Fang (2016) used standard deviation of stock returns adjusted on monthly basis. Nakano and Nguyen (2012) and Jiraporn and Lee (2017) used annualized index of daily stock returns, that

measures volatility of equity returns or risk over time. Salem, (2015) measured corporate risk by use of standard deviations of return on asset (SDROA). Mendoza et al. (2023) measured corporate risk by using Altman's Z-Score (Altman, 1968). Leverage, an indicator of how risky financing decisions are, served as a proxy for measuring risk in Faccio et al., (2011). According to Tong and Ning (2004), high risk firms are viewed as high leverage firms and vice versa. In this study return on asset was measured as ratio of after tax net income to total assets. Ahmed (2014) successfully used the same metric for a similar study. The standard deviations of return on asset was used to measure corporate risk. This is a good measure since it captures both operational risk as well as financial risk (Faccio, et al., 2011; Tran and Le, 2020). Previous authors like Low, (2009); Pathan, (2009), Farag and Mallin, (2015); Tetsuyuki & Toshihito, (2016), Boubakri et al., 2013; Nakano and Nguyen, (2012) used the same proxy successfully to measure corporate risk.

Research Problem

Listed firms at Nairobi Securities Exchange (NSE) operate in increasingly dynamic, complex, and unpredictable business environment, and therefore, understanding factors that lead to corporate risks is critical .The effect of ownership structure on corporate risk remains contentious among scholars and policymakers. Amihud and Lev (1981),May(1995),Tufano (1996), Boubakri et al. (2013),Marchini et al (2020) and Suzana et al (2021) argue that ownership structure has positive effect on corporate risk while Langit and Adhariani (2017) argue that ownership structure has negative relationship on corporate risk. Chun and Lee (2017) and Padachi (2016) claim that ownership structure has insignificant effect on corporate risk. According to May (1996) and Tufano (1996), ownership concentration greatly reduces corporate risk while Paligorova (2010) and John et al. (2008) assert that ownership concentration significantly increases corporate risk.

A paper by Marchini, et al. (2020) on ownership structure and risk taking focused on Italian firms whose form of constituting board may differ from that of listed firms in Kenya thus presenting a contextual gap. In addition, the study by Marchini, et al. (2020) was cross sectional in nature which could limit the comprehensiveness of result findings presenting methodological gap as it ought to be panel design. Mukaria (2021) studied the influence of agency costs and firm size on the relationship between ownership structure and firm value. Firm value was used as dependent variable .The current study has corporate risk as dependent variable .The controversies among scholars could be attributed to business operational

differences of firms, contextual operations of the firms or regulatory differences of the studied firms based on country. The above conceptual and contextual gaps led to the research question: What is the effect of ownership structure on corporate risk among firms listed at the NSE, Kenya?'

Literature Review

Theoretical Review

The theoretical framework upon which this study is based is varied. Four theories can explain the relationship between ownership structure and corporate risk. Agency Theory is the anchoring theory. Other theories used in the study are Mean Variance-Portfolio Theory, the Stewardship Theory and Resource Dependence Theory (RDT). This study sought to determine the effect of ownership structure on corporate risk among firms listed at NSE. Agency theory was propounded by Jensen and Meckling (1976). According to agency theory, managers or directors of corporations are agents of shareholders of those corporations. In other words, shareholders who participate in corporate ownership entrust the corporation's directors and managers with the administration of their resources. The agent must make judgments and operate in the principal's best interest. However, the agents' interests could be in conflict with the interests of the principals thus leading to agency problems (Jensen & Meckling, 1976). Agency theory is relevant to this study in that it tries to explain corporate management of listed firms as a shared goal to match shareholders' interests to that of the managers. Agency costs if not monitored can deprive operational capabilities of listed firms. In the event that agency problems surpass the goals of the listed firm, corporate risks occur in terms of decline in returns and subsequent collapse of the firms.

Markowitz (1959) founded the Mean variance-portfolio theory (MVPT). The MVPT states that a firm's investment returns is a tradeoff of risks associated with the firm's business venture and expected returns (Markowitz, 1959). The theory argues that investors maximize return by carefully selecting different portfolios based on investment risks associated with them (Markowitz, 2009). A firm has to select proper mix of assets to invest for optimal firm returns (Sirucek & Křen, 2015). Based on MVPT, the firm has to carefully select, classify, measure and control risks for it to maximize returns (Cochrane, 2014). The MVPT is relevant in understanding corporate risks. Listed firms have to select portfolio of investment based on expected risks of the portfolio against level of returns.

Stewardship theory was postulated by Davis and Donaldson (1991). The theory explains that firm managers left on their own are likely to be good stewards of the stakeholders' assets (Smallman, 2004). This theory is rooted in sociology and psychology. It views managers as moral curators who will increase a company's profits in good faith and without ulterior motives. The theory asserts that mangers are good steward of the organization if left to do so. The theory explains the importance of managers in managing operations among the listed firms by ensuring that assets are utilized properly to generate profits for the stakeholders and also ensuring that critical good corporate governance practices are adhered to so as to minimize agency costs and mitigate on corporate risks.

Pfeffer and Salancik (1978) proposed the Resource Dependence Theory (RDT). RDT holds that, external resources are essential tenets for tactical and strategic management of a firm. Organizations rely on a variety of resources, including labor, capital, and raw materials. Resources are necessary for organizations and the environment of an organization provides these resources. Other organizations frequently possess the resources that one organization need. Power is based on resources. Dependence on resources and power go hand in hand. One organization can have power and influence over another because of the huge amount of resources it has compared to the other .RDT focuses on how the external resources influence the behavior of a firm in terms of resource allocation and use (Biermann & Harsch, 2017). The RDT argues that as the size increases, more resources are available to the firm to pursue its objective (Hillman et al 2009). Resource dependence theory is important for many different facets of organizational strategy, including hiring of board members, corporate risk management, and many others. Resource dependency theory is about access to resources by the board of directors. The external resources brought by independent directors, such as information, people and technological innovation may influence enactment of corporate policies that lead to more or less corporate risk.

Empirical Review

Farwis and Azeez (2019) investigated ownership structure and firm risks among listed firms in Sri Lanka from 2010-2017. Ownership structure was operationalized as concentrated, institutional and management ownership while firm risks was operationalized as financial risks, total risk and asset return risk. This was a panel-based study since secondary data was extracted from firm records for eight years. It was found that management ownership negatively and significantly impacts firm risk. Conversely, concentrated and institutional ownership structure had positive effect on firm risk.

Sadaula and Hamal (2022) studied the relationship between bank risk, ownership structure, and deregulation in Nepalese commercial banks. In the study, the ownership structure, bank size, bank age, and bank regulation were taken as independent variables, while the non-performing loan was treated as a dependent variable. The study used descriptive and inferential statistical approaches for the analysis of secondary data from 20 commercial banks, totaling 140 observations during the time period from 2012 to 2018. The correlation analysis demonstrates the considerable and positive relationship between age and risk, indicating that the risk of the bank rises with age. Compared to government-owned banks, non-performing loans are less common at foreign- and privately-owned banks. This study uses ownership structure as independent variable.

Langit and Adhariani (2017) studied ownership structure and risk-taking behavior of firms listed at the International Securities Exchange (ISE) from 2013 to 2015. Firm risk-taking was measured using income volatility. Employing fixed effect model, it was found that family and foreign ownership negatively and significantly affect firm's risk-taking behavior.

Marchini, et al. (2020) focused on listed firms in Italy. They investigated the influence of corporate ownership structure on corporate risk. They relied on secondary data extracted from firm reports. Using a sample of 233 Italian listed companies and multivariate regression, it was discovered that a high level of ownership concentration is positively related to a firm's low level of risk taking by the board of directors. It was also found that ownership concentration positively impacts corporate risk. However, the study focused on Italian firms whose form of constituting board may differ from that of listed firms in Kenya presenting contextual gap.

Paligorova (2010) investigates Corporate Risk Taking and Ownership Structure .The data used were: names of shareholders, their type, and the percentage of shareholdings reported once during the period from 2003 to 2006 for listed firms in 38 countries.13,486 firms made up the sample after financial services companies and firms with less than $10 million in total assets were eliminated. Corporate profits volatility were used as a measure of risk-taking. The standard deviation of firm i's industry- and country-adjusted EBITDA/Assets serves as the dependent variable, risk. Ownership is expressed as a proportion of the largest shareholder's direct and indirect equity ownership. The value is marked as zero if the largest owner owns less than 10% of the company. Logarithm of sales, book leverage (short and long term debt over assets),

and corporate earnings (EBITDA/Assets) established at the start of the sample period, which is the year 2003, are were used as firm controls. The findings indicated a positive correlation between ownership concentration and the bank's risk preference; an inverted u-shaped relationship between the bank's risk preference and shareholding separation; a negative correlation between the bank's equity balance and its risk preference; and an inverted u-shaped relationship between the bank's cash flow rights and voting rights divergence and the bank's risk preference.

Naveed et al. (2021) examined the impact of ownership structure on risk-taking behavior. The study focused on Pakistani non-financial listed companies in 2021.The study's main goals were to investigate how ownership structure—including family ownership, institutional ownership, and ownership concentration—relates to the risk-taking behavior of the firms listed in Pakistan. For the years 2011 to 2018, 270 firms' data were used in the study. In the study, the relationship between risk-taking behavior and ownership structure is investigated using a pooled OLS with Random Effect Panel regression approach. Risk-taking is the study's dependent variable. The standard deviation of return on asset (ROA) spanning two (T-2) overlapping years is used to quantify risk taking. A common indicator of risk taking in the literature is return volatility. Ownership structure is the study's independent variable and is operationalized into ownership concentration, family ownership, and institutional ownership. The market to book ratio was used to assess a firm's growth opportunities. Firm size, profitability, and growth opportunity are the control variables. The overall findings imply that institutional ownership has a strong and negative relationship with the firm's risk-taking behavior. The degree to which firms take risks is significantly and negatively correlated with family ownership and ownership concentration. Larger firms have a negative relationship. Risk-taking and opportunities for growth are significantly and positively related. The study only focused on non-financial firm. The current study focuses on all firms listed at the Nairobi Securities Exchange (NSE), both financial and non-financial. Both types of firms are regulated by capital markets authority, so long as they are listed on the NSE.

Methodology

This study was guided by the positivist approach. Positivism is concerned with truths, objective reality, impartiality, conformity, consistency, dependability and production of credible data (Saunders et al., 2009). Causal survey research design was adopted for this study because the study intends to establish the cause-effect relationships between the variables of the study. Causal research designs are appropriate when

investigating relationship among variables. The design is helpful in answering the how, when, where and what of the population though it cannot help answer the why questions (Mccombes, 2018). The study population was sixty (60) firms at NSE as at 31st December 2021.Secondary data was extracted from NSE yearbooks. Panel data to be obtained covered a span of 11 years; 2011 to 2021 resulting to 647 observations. Sufficient data were available for the study period and most firms were listed during this period. For the consistency of data, this study was limited to companies that were listed for the whole 11-year period and excludes those that were listed after the year 2011 or delisted or suspended before the year 2021. If some listed firms at NSE had missing data, unbalanced panel data analysis technique was used. Ownership structure is the independent variable and corporate risk is the dependent variable. Ownership structure was operationalized into sub variable; ratio of managerial ownership, ratio of foreign ownership, ratio of government ownership, ratio of corporate ownership and ratio of diffuse ownership. Corporate risk was measured as Standard deviation of return on asset (SDROA). ROA =Net Profit after tax / Total assets. The diagnostic tests carried out include unit root tests, Hausman, Normality, Multicollinearity, Autocorrelation and Heteroscedasticity. The data was analyzed using STATA software. A linear regression analysis estimation model $CRit= \beta 0 + \beta 1OSit+ \varepsilon i$ was used for estimation.

Where: CRit = corporate risk measured as volatility of firm earnings of listed firm i at time t

OSit= ownership structure of listed firm i at time t,

t = time period (2011 to 2021) and

ϵ = Error term

The hypothesis was checked by employing the p-calculated value in the model coefficients where we fail to reject the Ho if the p-calculated> 0.05 but reject Ho if the p-calculated< 0.05. Graphs, figures and tables were used to present data.

Results

Descriptive statistics

Descriptive Statistics of Ownership Structure

The descriptive statistics for ownership structure was assessed using managerial share ownership, foreign share ownership, government share ownership, corporate ownership and diffuse ownership. The descriptive statistics of ownership structure are as shown in Table 1.

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Table 1: Descriptive Statistics of Ownership Structure

	N	Mean	Minimum	Maximum	Std. D	Skewness	Kurtosis
Managerial share ownership	647	0.207	0.132	0.413	0.032	3.421	7.305
Foreign share ownership	647	0.495	0.272	0.524	0.090	2.764	9.704
Government share ownership	647	0.213	0.010	0.648	0.097	4.287	8.225
Corporate ownership	647	0.501	0.227	0.621	0.033	2.740	6.935
Diffuse ownership	647	0.628	0.561	0.883	0.080	3.042	7.244

Source: Authors (2023)

The results showed that managerial share ownership as measured by ratio of managerial ownership to total ownership had a mean of 2.07 with a minimum of 0.132 and maximum of 0.413. The standard deviation from the mean was 0.032 with a Skewness value of 3.421 and Kurtosis of 7.305. The results further indicate that foreign share ownership as measured by ratio of ratio of foreign ownership to total ownership had a mean of 0.495 with a minimum of 0.272 and maximum of 0.524. The standard deviation from the mean was 2.764 with a Skewness value of 3.02 and Kurtosis of 9.704. Government share ownership as measured by ratio of government ownership to total ownership had a mean of 0.213 with a minimum of 0.010 and maximum of 0.648. The standard deviation from the mean was 0.097 with a Skewness value was 4.287 and Kurtosis at 8.225.

Corporate ownership as measured by ratio of corporate ownership to total ownership had a mean of 0.501 with a minimum of 0.227 and maximum of 0.621. The standard deviation from the mean was 0.033 with a Skewness value was 2.740 and Kurtosis at 6.935. Diffuse ownership as measured by ratio of diffuse ownership to total ownership had a mean of 0.628 with a minimum of 0.561 and maximum of 0.883. The standard deviation from the mean was 0.080 with a Skewness value was 3.042 and Kurtosis at 7.244. The implication of the ownership structure plays a crucial role in determining the way public listed companies operate, as it influences key aspects such as decision-making processes, management incentives, and firm performance. From the findings, the indicators of ownership structure; managerial share ownership, foreign

share ownership, government share ownership, corporate ownership, diffuse ownership are expected to affect corporate risk in diverse ways as their means differ independently.

Descriptive Statistics of Corporate Risk

The descriptive statistics for corporate risk was measured as the Standard deviation of return on asset (SDROA). The descriptive statistics of Corporate Risk are as shown in Table 2.

Table 2: Descriptive Statistics of Corporate Risk

Variables	N	Mean	Minimum	Maximum	Std. Dev.	Skewness	Kurtosis
Corporate Risk	647	0.055	0.001	0.649	0.064	4.327	3.598

Source: Authors (2023)

The results indicate that corporate risk as measured by standard deviation of return of assets had a mean of 0.055 with a minimum of 0.001 and maximum of 0.649. The standard deviation from the mean was 0.064 with a Skewness value of 4.327 and a Kurtosis of 3.598. Corporate risk is a significant concern for public listed companies and must be carefully managed to ensure their financial stability and reputation. Companies must implement effective risk management strategies to minimize the impact of various types of risks on their financial performance and reputation.

Correlation Analysis

Conducting correlation analysis was deemed essential in evaluating the degree of correlation between the variables under investigation. The Pearson's correlation was utilized to analyze the composite score of each variable. The Pearson correlation coefficient typically exhibits a range of values between +1 and -1. A correlation coefficient of +1 signifies a complete positive linear correlation, whereas a value of 0 denotes the absence of any linear correlation, and −1 indicates a full negative linear correlation. A statistically significant correlation is observed when the p-value is less than or equal to 0.05. According to Mkansi and Acheampong (2012), if the p-value exceeds the significant level of 0.05, the correlation is deemed not statistically significant. A positive correlation denotes that there exists a tendency for both variables to increase or decrease in tandem, such that an increase in one variable is typically accompanied by a corresponding increase in the other variable, and vice versa. The findings are presented in Table 3.

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Table 3: Correlation Analysis

	Corporate risk	Managerial ownership	Foreign ownership	Government ownership	Corporate ownership	Diffuse ownership	Ownership Structure
Corporate risk	1.000						
Managerial ownership	.744**	1.000					
	0.000						
Foreign ownership	-.751**	-0.534	1.000				
	0.000	0.000					
Government ownership	.743**	.440**	-0.447	1.000			
	0.000	0.000	0.000				
Corporate ownership	-.755**	-0.542	.556**	-0.349	1.000		
	0.000	0.000	0.000	0.000			
Diffuse ownership	-.767**	-0.454	.445**	-0.433	.565**	1.000	
	0.000	0.000	0.000	0.000	0.000		
Ownership Structure	-.754**	-.540**	.547**	-.447**	.348**	.463**	
	0.000	0.000	0.000	0.000	0.000	0.000	1.000

Source: Authors (2023)

Correlation between Ownership Structure and Corporate Risk

The findings of the study revealed a significant and positive correlation between managerial ownership and corporate risk in companies listed on the Nairobi Securities Exchange (r= -0.744, p=0.000). The study found a statistically significant negative correlation (r= -0.751, p=0.000) between foreign ownership and corporate risk , positive and statistically significant correlation between corporate risk and government ownership (correlation coefficient = 0.743, p-value = 0.000) ,significant and negative correlation (r= -0.755, p=0.000) between corporate ownership and corporate risk and a positive and statistically significant correlation (r= 0.743, p=0.000) between diffuse ownership and corporate risk for companies that are listed on the Nairobi Securities Exchange. The results suggest that an increase in foreign ownership, corporate ownership, and diffuse ownership is associated with a reduction in corporate risk.

Linear Regression Results

Effect of Ownership Structure on Corporate Risk

Table 4: Regression Results for Ownership Structure and Corporate Risk

SDROA	Coef.	Std. Err.	Z	P>|z|
Managerial ownership	0.169	0.038	4.420	0.016
Foreign ownership	-0.193	0.039	-4.980	0.000
Government ownership	0.179	0.038	4.460	0.000
Corporate ownership	-0.178	0.039	-4.570	0.025
Diffuse ownership	-0.240	0.038	-6.270	0.047
Constant	0.645	0.046	14.020	0.000
Wald chi2(5)	848.87			
Prob > chi2	0.000			
R-squared	0.679			

Source: Authors (2023)

The regression model was:

$CR_{it} = \beta_0 + \beta_1 MO_{2t} + \beta_2 FO_{2t} + \beta_3 GO_{3t} + \beta_4 CO_{4t} + \beta_5 DO_{5t} + \varepsilon_i$

Where;

CR= Corporate Risk

MO= Managerial ownership

FO=Foreign ownership

GO= Government ownership

CO= Corporate ownership

DO= Diffuse ownership

The fitted regression model was:

$CR_{it} = 0.645 + 0.169MO_{2t} - 0.193FO_{2t} + 0.169GO_{3t} - 0.178CO_{4t} - 0.240DO_{5t} + \varepsilon_i$

The coefficient of determination measures the proportion of the variation in the dependent variable that can be explained by the independent variable(s). The results indicated that the coefficient of determination R-squared was 0.679. The model indicates that ownership structure explains 67.9% of the variation in corporate risk. The Wald chi2 (5) of 848.87shows the fitness of the model regarding the effect of ownership structure on corporate risk and p=0.000<0.05 implying that the relationship between ownership structure and corporate risk are statistically significant.

Managerial ownership had a β coefficient of 0.169 and a P-value= 0.016. This indicates that a unit change in managerial ownership leads to 0.169 increase on corporate risk. The p-value of 0.016 is <0.05. Foreign ownership had a β coefficient of -0.193 and a P-value= 0.000. This indicates that a unit change in foreign ownership leads to 0.193 decrease on corporate risk. The p-value was 0.000 which is <0.05. Government ownership had a β coefficient of 0.179 and a P-value= 0.016. This indicates that a unit change in government ownership leads to 0.169 increase on corporate risk. The p-value of 0.016 is <0.05.

Corporate ownership had a β coefficient of -0.178 and a P-value= 0.026. This indicates that a unit change in corporate ownership leads to 0.178 decrease on corporate risk. The p-value was 0.026 which is <0.05. Lastly, diffuse ownership had a β coefficient of -0.240 and a P-value= 0.047. This indicates that a unit change in diffuse ownership leads to 0.240 decrease on corporate risk. The p-value was 0.026 which is <0.05. Since the P-values were less than the critical 0.05, the null hypothesis (H_{01}) was rejected implying

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that there is a significant relationship between ownership structure and corporate risk among listed firms at Nairobi Securities Exchange

Trend analysis

Trend analysis for ownership structure

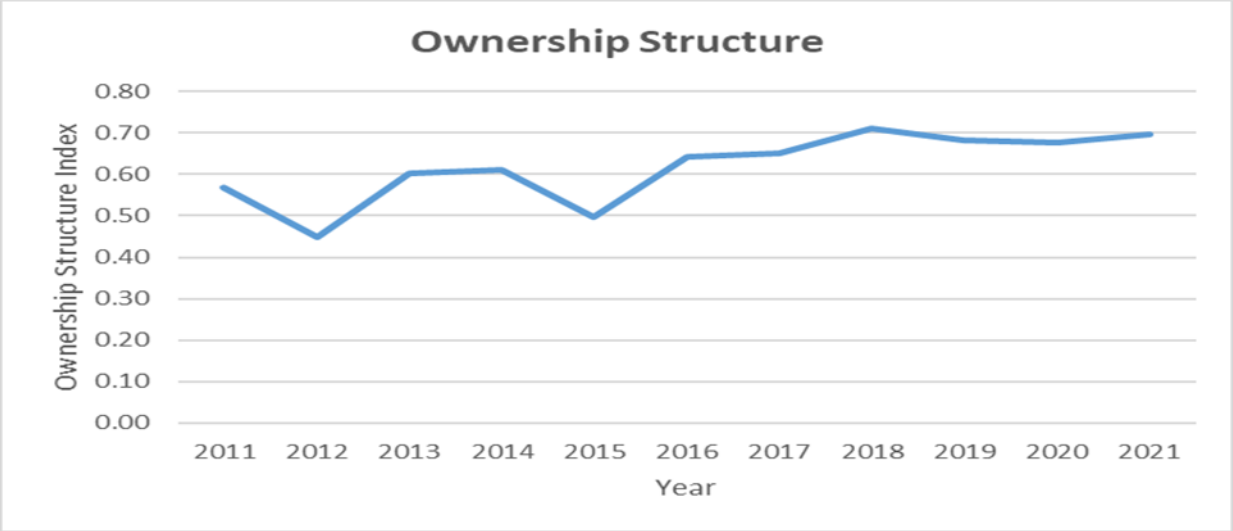

Figure 1: Trend Analysis for Ownership Structure

Figure 1 above indicates that ownership structure index as depicted by shareholding by top five investors to total shareholding had small drop from 2011 to 2012 followed by a rise between 2013 and 2014. A drop was recorded in 2015 with a continuous rise up to the end of the study period in 2021.

4.4.2 Trend analysis for Corporate Risk

Figure 2 below indicates that corporate risk as depicted by standard deviation of return of assets had a series of highs (uptrend) or lows (downtrend). This is observed from the start of the study period in 2011 up to the end of the study period in 2021. However, the lowest was observed in 2011 and the highest in 2021.

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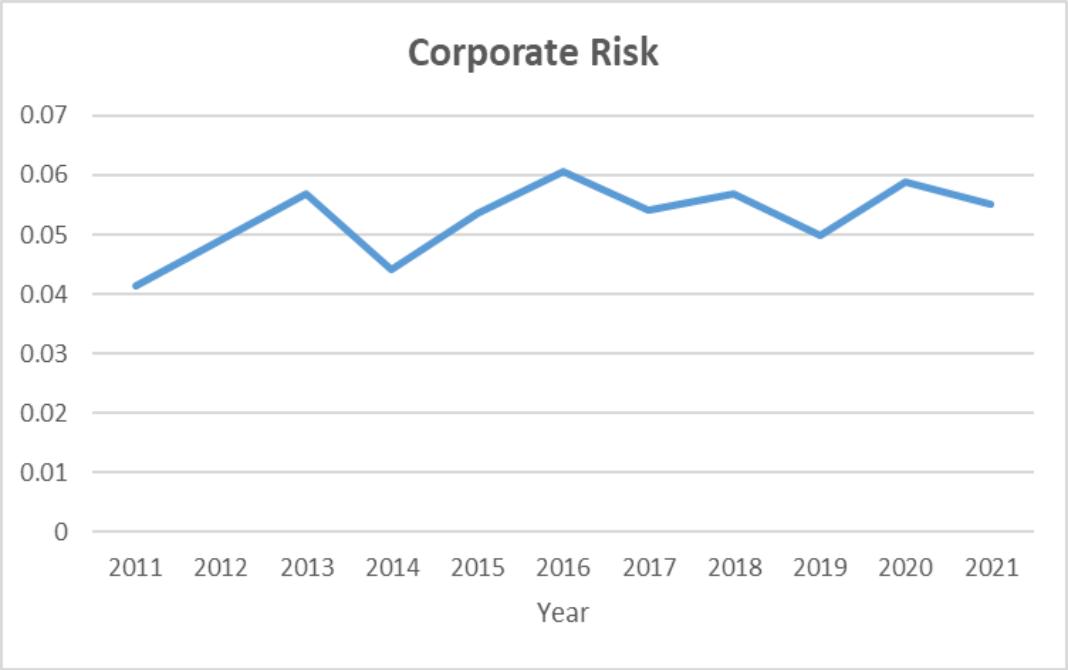

Figure 2: Trend Analysis for Corporate Risk

Interpretation and Discussion

The aim of this study was to investigate the impact of ownership structure on corporate risk within the context of publicly traded companies listed on the Nairobi Securities Exchange. The evaluation of ownership structure encompassed an analysis of various factors, including managerial share ownership, foreign share ownership, government share ownership, corporate ownership, and diffuse ownership. The hypothesis was tested using a linear regression analysis. The β coefficient for managerial ownership was found to be 0.169 with a corresponding P-value of 0.016. The variable of foreign ownership exhibited a β coefficient of -0.193 and a statistically significant P-value of 0.000. The β coefficient for government ownership was determined to be 0.179 with a corresponding P-value of 0.016. Additionally, the β coefficient for corporate ownership was found to be -0.178 with a corresponding P-value of 0.026. Finally, it was observed that diffuse ownership exhibited a β coefficient of -0.240 and a P-value of 0.047. The null hypothesis (H01) was rejected based on the P-values being less than the critical 0.05. This indicates that there exists a significant relationship between ownership structure and corporate risk among listed firms at Nairobi Securities Exchange.

The results of the research align with the outcomes of Langit and Adhariani's (2017) investigation on the correlation between ownership structure and risk-taking behavior of companies enlisted in the ISE. Their study revealed that family and foreign ownership have a significant and adverse impact on the risk-taking behavior of firms. The results are also consistent with the study conducted by Farwis and Azeez (2019) on the relationship between corporate ownership structure and firm risks in Sri Lankan listed companies. The study revealed that management ownership has a significant and negative effect on firm risk. On the other hand, a concentrated and institutional ownership structure yielded a positive impact on the risk of the firm. The study conducted by Chun and Lee (2017) examined the impact of corporate ownership structure on the risk-taking behavior of listed firms. The findings of the study revealed that the ownership structure had a negative effect on the firm's risk-taking behavior. The impact of foreign ownership on corporate risk-taking exhibits a monotonic relationship.

Marchini et al. (2020) conducted an investigation into the potential influence of corporate ownership structure on corporate risk and arrived at divergent results, indicating that ownership concentration has a positive effect on corporate risk. The present study's results are divergent from those of Tarus et al. (2020), who investigated the relationship between ownership structure and risk and concluded that ownership structure has a significant and positive influence on risk management. Lotfi and Mohammadi's (2014) research on the correlation between ownership structure and risk management in Iran demonstrated a positive impact of ownership structure on risk management.

Conclusion and Recommendation

The research findings indicate that the relationship between managerial ownership, government ownership, and corporate risk is positive. The empirical evidence suggests that firms characterized by a higher degree of ownership concentration exhibit a tendency to encounter lower levels of risk in comparison to those firms that possess a dispersed ownership structure. The aforementioned phenomenon can be explained by the notion that in cases where a sole shareholder possesses a substantial portion of a company's shares, they are capable of wielding a heightened degree of authority and sway over the organization's choices, thereby diminishing the probability of engaging in venturesome conduct. Moreover, firms characterized by a greater level of ownership concentration may reap advantages from the convergence of interests between shareholders and management, thereby resulting in more informed decision-making and diminished risk. It is noteworthy that the correlation between ownership structure and corporate risk is not invariably

unambiguous and can be impacted by diverse factors, including market circumstances and the distinct attributes of the enterprise.

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