INTERNALLY GENERATED EQUITY AND FINANCIAL PERFORMANCE OF NON-FINANCIAL FIRMS LISTED AT NAIROBI SECURITIES EXCHANGE, KENYA

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ABSTRACT

Despite the fact that in Kenya, many firms have tried to undertake their operations prudently using cost-effective strategies, those firms have ended up liquidated or exiting the market due to inappropriately stretching their financial brawns and wrong credit management schemes which in essence is lack of knowledge on suitable financing. Non-financial firms have not been performing well for the last decade the entire period of this study as per the literature, hence the purpose of this study. The general objective, of this study sought to evaluate the effects of internally generated equity on financial performance of non-financial firms listed at Nairobi Securities Exchange, Kenya. The 44 non-financial firms listed at the NSE, Kenya for period of a period 12 years between 2012 to 2023 were the target population of interest for this study. The study employed positivism philosophy and ex-post facto research design. The study used secondary data that was obtained from the respective firms' historical financial reports. The Data was entered into the data collection sheets and later it was entered into EVIEWS v 10.0 for further analysis. Data was then quantitatively analysed using descriptive statistics which included means, standard deviation, maximum values and minimum values. The study further employed the diagnostic tests; stationary, Hausman test, normality, homoscedasticity, serial correlation and multicollinearity was tested. This ensured that the assumptions hold to avoid any misspecifications when undertaking more analysis.

Keywords: Internally Generated Equity, Nairobi Securities Exchange, Financial Performance.

INTRODUCTION

Background of Study

One of a firm's most crucial areas is financing. Finding the best financing mix and balance of liabilities and equity for the firm is very important to a manager in the financing department. The combination of equity and liabilities that a company uses to finance its activities determines the financial structure (Matar & Eneizan, 2018). The ability of businesses to satisfy the needs of many stakeholders is strongly correlated with the structure of capital (Verbeke and Tung, 2013). There has been debate on equity and financial performance since the inception of Modigliani and Miller, which it introduced the current theory of financial structure in 1958, it also cleared the path for the advancement of additional theories including the asymmetric information theory, static-trade off theory and agency cost theory, among others (Yapa Abeywardhana, 2017), such financial structure theories provide a framework for funding business activities with both equity and liabilities. Therefore, the goal of financial structure is to maintain a balance between risks and profits in businesses.

The company's owner(s) are equity holders with a long-term duty to the company to expand it in the future. The liabilities holder is the company's creditor and has a long-term commitment to it in exchange for periodic principle and interest payments (Dada & Ghazali, 2016). There are several alternatives' firms can acquire finances to run their operations such as increasing co-owners, borrowing as loan,

retaining earned profits, lease financing, use of warrants, issue conventional bonds sign forward contracts, or trade swaps and can also use other unique securities in different combinations in order to mitigate risk and maximize market value (Matar & Eneizan, 2018).

According to Bhaduri (2002), because every financial decision made will have an impact on financial performance, the company's goals can be realized by properly implementing financial management functions (Ernayani, Robiyanto & Sudjinan, 2017). According to Uddin (2015), in reality, different businesses may have varied objectives, but the main purpose of every business is to save costs. In terms of the overall cost, the financing cost of financial product is of particular relevance to creditors and stock market investors. This may be the case since the liabilities to equity ratio informs creditors of the possibility of default for businesses with high levels of leverage.

Acording Gill, Biger and Mathur (2011), a firm's financial structure can have a significant impact on financial performance. A crucial managerial choice is whether to use equity or debt because it affects both the market value of the firm, return and risk to shareholders (Salim & Yadav, 2012). The dividends paid to shareholders are impacted by the liabilities-to-equity ratio, which also has an impact on the cost of financial product and the financial performance (Tanjung and Wahyudi, 2019). Additionally, as stated by Kerim, Alaji and Innocent (2019), the success of a business depends on the management determining the appropriate finance to support the business.

Fatoki et al. (2021) argue that, many businesses struggle to find the best balance of financing options, which makes it difficult for them to continue operating. The choice of how to finance a company's operations is based on the ratio of liabilities to equity. Acoording to Kliestik et al. (2020), equity and liabilities are the main elements of the financial structure and reflect the major claims on the assets of the organizations (Ogachi et al., 2020). Whitaker & Kräussl (2025), asserts that financially distressed enterprises typically exhibit poor cash flows, erratic financial performance, and a fall in the assets-to-liabilities ratio. Owolabi and Inyang (2013), argue that the funding component is crucial in determining the firm's long-term survival as well as its short-term financial performance. According to Akhtar et al. (2012), a firm's capacity to establish, run, and achieve financial performance is significantly influenced by its access to financing. Lack of access to land, utilities, installation and import procedures are barriers to the expansion and financial performance of non-financial firms listed at NSE, Kenya. The enterprises find it challenging to acquire financing due to a number of other factors, including weak financial management abilities and a lack of necessary collateral.

In their study, Maina and Ishmail (2014), conclude that equity and liabilities are key factors in determining the financial performance of companies listed on the NSE, Kenya. Githire and Muturi (2015), revealed that internal equity has a positive and impact on financial success. This study's conclusion is internal equity has a positive and impact on financial perfomance. Buigut et al. (2013), posits that financial performance is significantly influenced by internally generated equity. According to Ngui & Atheru (2023), internal equity had a positive effect on financial performance of Kenyan companies listed in the non-financial sector and related industry.

Statement of the Problem

In fact, certain businesses have done exceptionally well as a result of the government's significant investments in fostering a business-friendly climate in Kenya (Girangwa Kakiya, Rono & Mose,2019). However, a number of listed firms in Kenya are performing worse than before, and some have even been taken off the NSE's list in the past ten years (Owade, 2023). The relationship between financial structure and financial performance has been a debate in an attempt to revitalise the failing and

liquidated enterprises (Ogachi, 2021). M'tuaruchiu (2024), note that managers and practitioners still lack sufficient direction for reaching optimal financing structure decisions. Mukumbi, Eugine and Jinghong (2020) argue that, investors' wealth and trust in the securities market have declined as a result of this circumstance.

Non-financial firms that record good financial performance are able to achieve their going concern principle. However, this is not the actual situation among listed non-financial firms in most jurisdiction around the globe (Galdeano et al., 2019). In Kenya, the financial performance of non-financial firms has dropped from 5% in 2012 to 3.0% in 2023 which is based on equity turn over (NSE reoprt, 2023). In extention, over the years, several non-financial firms listed at NSE in Kenya continue to close operations owing to financial constraints. The fall of Eveready, Uchumi, Mumias Sugar Company, Sameer Africa and African Portland Cement has been linked to weak financial structure (Kakiya & Bosire, 2019). Consequently, research on the connection between different finance choices and performance has shown contradictory findings. This investigation was conducted in light of this backdrop. According to Kurere, Tenai and Limo (2021), majority of empirical research on financial structure topic concentrates on studies from developed regions globally. Therefore, this study sought to determine effect of internally generated equity and financial performance of non-financial firms listed at Nairobi Securities Exchange, Kenya.

Research Objectives of the Study

To determine the effect of internally generated equity on financial performance of non-financial firms listed at Nairobi Securities Exchange, Kenya.

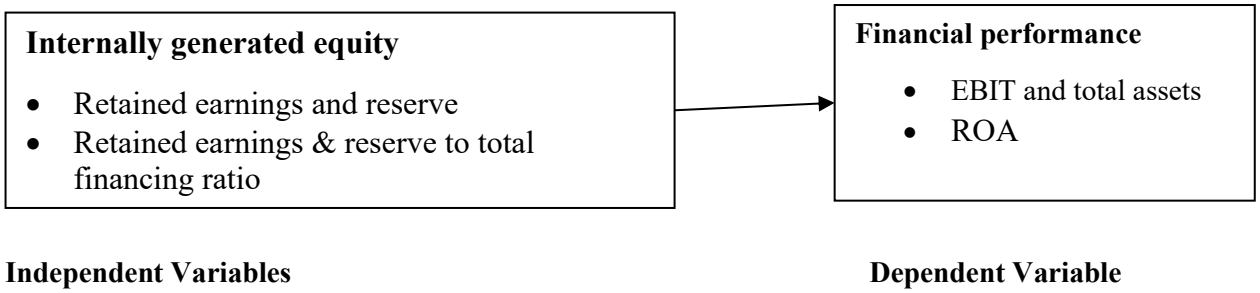
Research Hypotheses

H_0 Internally generated equity has no effect on financial performance of non-financial firms listed at Nairobi Securities Exchange, Kenya.

LITERATURE REVIEW

Conceptual Framework

Figure 1 Conceptual Framework



Internally Generated Equity on Financial Performance

Javed and Shah (2015), looked on how retained earnings affected financial performance for companies listed on the Karachi Stock Exchange, including those in the food and personal care industries. Study participants looked at the connection between retained earnings and financial performance. Their study found a weak and significant correlation between retained earnings and financial performance. In Nigerian, Yemi and Seriki (2018) investigated the effects of retained earnings on financial performance of listed firms, of 75 non-financial companies that were listed on the Nigerian Stock Exchange from 2003 to 2018. The annual financial statements

of the various firms were utilized to gather the imbalanced panel data (cross-sectional and time series) needed to analyse the relationship. The findings showed that retained earnings had a positive relationship with performance.

Pibowei, Odong and Jimoh (2021), study adopted ex-post-facto research design with an interval scale of measurement and preceding year basis of sampling. The Secondary data was collected from published annual reports and accounts of the quoted breweries. The study employed OLS model, ANOVA, F-test and T-test statistics for data presentation, statistical analysis and hypothesis testing. The study found that there is no significant relationship between retained earnings, and the return on assets at 0.107, no significant relationship between retained earnings and the return on equity at 0.142, and no significant relationship between retention index and the earnings per share at 0.776. The study concluded that the retained earnings were not adequate to improve the return on assets, return on equity and earnings per share.

Agembe, Chesoli and Ngacho (2024), conducted research among 42 non-financial firms listed on the exchange explores the relationship between retained earnings and financial performance. The study was anchored on data covering the time interval 2016 to 2022 inclusive. Data is sourced purposively from the annual reports of the non-financial sector, including agricultural firms, automobiles and accessories, commercial & services, construction & allied, energy & petroleum, insurance, investment, investment services, manufacturing & allied, telecommunication, and real estate investment trust. The research uses the fixed effects model under panel regression to show a positive and significant relationship between retained earnings and financial performance, and particularly the ultimate direct influence that retained earnings have on financial performance of listed non-financial firms.

Dahmash et al., (2023), to investigate the effect of the retention per share compared to the dividend per share by modelling the firm's market value as a function of the retention per share and the dividend per share for all firms in the Jordanian context using unbalanced panel data analysis for a sample of 2281 firm years covering the period from 2010 to 2021. The results of the pooled sample indicated a strong positive significant effect for dividends per share. However, the retention per share indicated a negative significant effect on the firm's market value. The other robustness analysis for the two sub-samples and the financial and non-financial sub-samples indicated the same results, consistent with the pooled sample for the two main explanatory variables.

Oganda, Museve and Mogwambo (2022), study applied dynamic unbalanced panel analysis techniques using Secondary data for 10-year period (2010 - 2019) with the study population comprising of 9 listed firms. Quantitative secondary data was collected from the firms' financial statements by use of a document analysis guide. Focus was on retained earnings financing moderated by economic growth rate and earnings volatility on performance which was proxies by Tobin's Q. Pecking order theory guided the study. Longitudinal research design was used as it is appropriate when dealing with panel data. The regression coefficient was also

positive and significant. The study recommended that Retained earnings improve performance hence should be applied. Future studies can consider a static panel analysis.

Baloch *et al.,* (2015), set out to research how retained earnings affected financial performance. In this regard, the auto sector which included the sub-sectors of motor vehicles, trailers, and auto parts was used as an example. Data for 22 businesses were taken from the state bank of Pakistan's financial statement analysis document (SBP). To ascertain the correlation between the underlying variables, the multiple regression models were applied. The findings showed that financial performance was highly influenced by retained earnings.

Research Gaps

It is apparent from literature that most research undertaken emanates from developed economies hence there is huge discrepancy in applying of results from the studies in developing economies and this arouse from the conceptual gap and contextual gap in how firms undertakes the internally generated equity financing. Furthermore, methodological gaps exist in terms of use of research paradigm, research design and diagnostic tests on the same research study topic, hence this research produced more insights on relevant analytical tools, measures and tests that would help in bridging gap for use in future by other researchers on internally generated equity financing and financial performance of financial or non-financial firms.

RESEARCH METHODOLOGY

Research Design

This study employed a positivism research philosophy and ex-post facto research design. It is a type of research design that helps to determine the cause-and-effect association between study variables that is predictor variable and the predicted variable (Christy & Nurhasanah, 2024). The predictor variable is not manipulated when considering ex post facto research designs. It is also a type of research design which examines the effect of a particular characteristic or past occurrence on the outcome variable (Sekaran & Bougie, 2016). It was adopted because it allowed inferences to be made on associations and causality and hypotheses. The choice of research strategy according to (Saunders, *et al.,* 2018), is guided by the research question(s), objective(s), the extent of existing knowledge, amount of time and resources available as well as the philosophical underpinning.

Population of Study

A target population is a large collection of people, things, or events that all share certain traits and adhere to a particular specification (Mugenda & Mugenda, 2003). For this study the 44 non-financial firms listed at the NSE for the twelve years between 2012 and 2023 was the target population of interest in this study. In research, the term "population" refers to the total number of the kinds of things (or situations) that are the subject of your study, not necessarily the total number of individuals (Stockemer & Stockemer, 2019). Consequently, a population may consist of specific types of elements like as objects, individuals, groups, or even events (Walliman, 2015). According to Dahabreh and Hernán (2019), a population is the total group of individuals, events, or priceless objects that the analyst want to investigate. The population is made up of all study components. The population for this study was all non-financial firms

quoted firms as of the end of 2023. According to NSE data, 44 non-financial firms quoted in Kenya as of 31st December 2023.

Sampling Frame

According to Lavrakas, *et al.,* (2019), a sampling frame is a list of the target population from which the sample is selected, which is usually finite in nature. Thus, for this study, the sampling frame comprised all the licensed 44 non-financial firms quoted, listed on the Nairobi Securities exchange as of 31st December 2023, and as contained in the capital market authority (CMA) database and NSE database. The capital market authority (CMA) 2023 also provides disaggregated data for the listed companies.

Sample and Sampling Techniques

A sample is a section of the population taken for investigation. Taherdoost (2016), describe a sample as being a collection of units chosen from the population (universe). Furthermore, a sample is defined by Lavrakas (2008) as a subset of components selected from a broader population. It is economical to use a sample in research (Alvi, 2016). While there are a number of ways to get a sample, the approaches differ in terms of how cost-effective they are and the expertise needed to use them. The purposive sampling strategy was used in this study to determine which units will be included in the sample.

Purposive sampling, according to Callegaro et al. (2014), is the intentional selection of specific units within the population or universe in order to create a sample that is representative of the population. Expert sampling sometimes referred to as purposeful sampling, aims to create a sample that may rationally represent a cross-section of the population without the use of probability. Using this strategy, the researcher can choose participants who gave detailed information on the issue being studied. The approach was used in this regard to choose the responders from each branch.

Table 1 Firms Distribution Categories

Category Of Company	No. Of Companies	Sample Period
Agricultural	6	2012-2023
Automobiles & Accessories	1	2012-2023
Commercial And Services	12	2012-2023
Construction & Allied	5	2012-2023
Energy & Petroleum	4	2012-2023
Investment	6	2012-2023
Manufacturing & Allied	8	2012-2023
Telecommunication	1	2012-2023
Real Estate Investment Trust	1	2012-2023
Total	44	2012-2023

Source: Author Calculation, 2023

Data Collection Procedure

Apuke (2017), defined data collection as the deliberate process of carefully gathering the information required to answer the study's questions. The study's primary objective was to clarify the relationship between internally generated equity and financial performance examined variables through secondary data. Data collection was started after official request was granted and the relevant institutions and personnel issue a letter of authorization. The institutions included but not limited to National Commission for Science, Technology and Innovation, Nairobi Securities Exchange and Firm's Management while the personnel include Supervisors in charge of projects. The secondary data was collected for a period of twelve years from 2012 to 2023 from historical published audited financial statements, NSE, CMA, non-financial firms listed at NSE premises and CBK exchange handbooks.

Data Collection Instrument (s)

The study made used secondary data from previous financial reports of the individual companies. Financial structure data including from internally generated equity, externally generated equity, short-term debt and long-term debt were collected from the audited financial statements and published financial reports from the sampled companies. The study used data spanning the years 2012 through to the end of 2023. Data was entered into a data collection sheet to organize the raw data for ease of cleaning and analysis (Tripathy, 2013).

Data Analysis and Presentation

Data analysis is a mechanism for reducing and organizing collected data to produce findings that require interpretation (Ott & Longnecker, 2015). The information entered on the data collection sheet was analysed using EVIEWS version 10.0 statistical software. Computing the relevant variables was based on the formulas discussed in the literature review. A fixed effect panel regression model was used to evaluate the connection between the dependent and independent variables.

Panel Data Analysis

Panel data can be defined as a two-dimensional data where cross-sectional units are observed over a given period of time (Beyaztas & Bandyopadhyay, 2022). Panel or longitudinal data can also be defined as the pooling of observations on a cross-section of organizations, countries, households etc over a given period of time. Further, Hsiao (2022), concluded that longitudinal data allows a researcher to analyse a number of important economic issues that can be addressed using cross sectional or time series data sets with ease. Gujarati (2009) has proposed a number of estimating methods for Random Effect (RE) and Fixed Effect panel data estimation (FE).

Model Specification

The study adopted panel regression under the panel data framework. Panel data was suitable for this study because it helps to reveal the change at a specific firms' level over time period. It also helps to establish time order of variables as well as it shows how associations emerge.

Panel Data Regression Model

The specific panel data model that was used for this study is as follows;

$FP_{i,t} = \beta_0 + \beta_1 IGER_{i,t} + \varepsilon_{i,t}$ ……..……..……...……..……...……..…..... Equation 1

$FP_{i,t}$ = Financial performance of firm i at time t., $IGER_{i,t}$ = Internally generated equity of firm Ratio of firm i at time t, i = Non-Financial Firms Listed from 2012 to 2023, t = Time period (2012-2023), ε = Error term

Stationarity Test

The implication for stationarity is that the mean, variance and autocorrelation for variables in a study are constant over time. In this study ADF - Fisher Chi-square will be used to check if the assumption of stationarity is fulfilled. Null hypothesis for the ADF Fisher chi-square test is that at least one of the time series in the panel is non-stationary while alternative hypothesis posits that there is no unit root. If the p-value is above a critical size, then the null cannot be rejected and the series appears to be with a unit root. If in case it is confirmed that any of the variables has a unit root, then the author has to differentiate it and run the equations using the differentiated variable.

Hausman Test (Hausman specification test)

The study used Hausman's specification test (1978) to choose between fixed effects and random effects models. In Hausman test, null hypothesis preferred model is random effects and the alternate hypothesis is that the model is fixed effects. If the study fails to reject the null hypothesis, then random effect would be an appropriate estimator otherwise in case of rejection of null hypothesis, fixed effect estimation will give better or efficient estimation of betas. Essentially, the tests look to see if there is a correlation between the unique errors and the repressors in the model. The null hypothesis is that there is no correlation between the two, hence interpreting the result from a Hausman test is fairly straightforward: if the p-value is small (less than 0.05), reject the null hypothesis.

Normality Test

The null hypothesis that the sample from which the data was taken is representative of a normally distributed population was tested using the Shapiro-Wilk test (González-Estrada & Cosmes,2019). The null hypothesis H_0 was that the data was normally distributed while alternate hypothesis (H_1) was that the data does not come from a normal distribution. The null H0 would be rejected if the *p*-value was higher than the significance level of 5% which is 0.05, so it is rejected if p-value is >0.05 and vice versa.

Heteroscedasticity Test

This study employed the heteroscedasticity test of Breusch-Pagan. If the p-value was less than <0.05, the Breusch Pagan test's null hypothesis indicated that there was **heteroscedasticity** and if p-value was > 0.05 then there was no **heteroscedasticity** (Dalla, Giraitis & Phillips, 2022)**.** If panel data shows heteroscedasticity to exist, then Feasible Generalized Least Squares (FGLS) model will be applied.

Serial Correlation Test

Serial correlation refers to a situation where the error terms are correlated with each other. That is the disturbance term of one observation is influenced by the disturbance term relating to another observation (Cao & Su, 2025). Breusch-Godfrey Serial Correlation LM test for autocorrelation in panel data was employed in this study. The null hypothesis was that no serial correlation while the alternative hypothesis testing is that there is serial correlation hence when p-value is lower (<0.05) significant level of 5% then autocorrelation is present and therefore you reject null hypothesis and vice versa.

Multicollinearity Test

The variance inflation factor was used to test for multicollinearity (VIF). When the VIF number was less than 5, there was assumption of no multicollinearity. The independent variables were correlated or have an influence on one another in this circumstance (Daoud, 2017). Invalid significance tests emerge from this circumstance's issues, which may cause the regression coefficients to inflate or deflate, depending on the situation.

RESULTS AND DISCUSSIONS

Descriptive Statistics

Descriptive statistics are basic features of data obtained in the study. This section presents secondary data descriptive statistics. Table 4.1 shows the descriptive statistics for variables used in the study.

Table 2 Measurers of Central Tendency and Dispersion

Statistic	Internal Generated Equity (IGER)	Financial Performance (ROA)
Mean	0.403244	3.426553
Std. Dev.	0.259010	15.10618
Skewness	0.552402	-0.995104
Kurtosis	2.880844	11.93024
Jarque-Bera	27.16542	1841.622
Probability	0.000001	0.000000

From table 2, internally generated equity had a mean of 0.403244 indicating an average employment of 40.3244 percent of internally generated equity for all the listed companies combined. From table 2, skewness was 0.552402 indicating that internally generated equity was not normally distributed. Positive skewness meant asymmetrical distribution for internally generated equity with a long tail to the right meaning overreliance on utilization of internally generated equity (Atilgan *et al.,* 2023). Kurtosis a value of 2.880844 indicated the data for internally generated equity was not normally distributed. In the case for internally generated equity the data was “leptokurtic,” since 2.880844>0 which is an excess kurtosis of more than 0. Jarque-Bera test indicate reject normality at 5% significance level (Madukaife, 2023). The standard deviation is simply the square root of the variance. This makes the standard deviations of the internally generated equity to be 0.259010. The standard deviation is an especially useful measure of variability when the distribution is normal or approximately normal because the

proportion of the distribution within a given number of standard deviations from the mean can be calculated.

From table 2, financial performance (ROA) percent had a mean of 3.426553 percent indicating an average return on assets of 3 percent for all the listed companies combined. From the table 4.1 skewness was -0.995104 indicating asymmetrical distribution for financial performance (ROA) with a long tail to the left meaning increase in performance in the observed periods (Iseringhausen, Petrella and Theodoridis, 2023). Kurtosis a value of Kurtosis 11.93024 indicated the data for financial performance (ROA) was not normally distributed. The Jarque – Bera test (JB test) constituted an alternative tool for testing the normality of variables (Jarque and Bera 1987). Jarque-Bera test indicate reject normality at 5% significance level (Cardoso *et al.,* 2025). These findings complements those of (Kabando and Otinga, 2021), analysis of the return on equity indicate that the average ROA for listed construction and allied firms was 0.134603.

Stationarity Test

The implication for stationarity is that the mean, variance and autocorrelation for variables in a study are constant over time. In this study, ADF - Fisher Chi-square was used to check if the assumption of stationarity was fulfilled.

Table 3 ADF - Fisher Chi-square Unit Root Test Summary

Series: Financial Performance, Internally Generated Equity		
ADF - Fisher Chi-square	504.026	0.0000

Table 3 presents the null hypothesis of the tests is that there is a unit root, with the alternative that there is no unit root. In this case it was confirmed that none of the variables has a unit root. The associated statistics were; ADF - Fisher Chi-square 504.026, p-value 0.0000.

Hausman Test

This additional assumption test is necessary to verify whether to use a fixed effects model or a random effects model while performing panel data analysis, which the analysis of data is over time, as indicated by (Baltagi, 2005). Essentially, the tests look to see if there is a correlation between the unique errors and the repressors in the model. presents the null hypothesis of the tests is that there is consistent random effect model, with the alternative that there is no consistent random effects model i.e. the random effects model is suitable, and the "unobserved" individual characteristics don't influence the "observed" explanatory variables. Hausman test is fairly straightforward: if the p-value is small (less than 0.05) <0.05 the random effects model is inconsistent and hence reject the null hypothesis and adopt Fixed effect model. The results on table 4 show that a fixed effect model is superior to random than random effects model.

Table 4 Hausman Test

Test cross-section and period random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random effects test comparisons	8.484626	1	0.0036

Cross-section random effects test comparisons:	Fixed	Random	Var(Diff.)	Probability
Internally Generated Equity	6.024042	-0.732035	5.379681	0.0036

Normality Test

The null hypothesis is that the sample from which the data was taken is representative of a normally distributed data set and it was tested using the Shapiro-Wilk test (Fisher, 2017).

Table 5 Shapiro-Wilk W Test for Normal Data

Variable	W	V	z	Probability
Financial performance	0.83933	2.238	1.446	0.82458
Internally Generated Equity	0.81492	2.578	1.736	0.64125

Table 5 presents the null hypothesis that the variables are normally distributed while alternate hypothesis was that the data does not come from a normal distribution. The associated p-value statistics for the five variables were found to be; Financial performance 0.82458, Internally Generated Equity 0.64125. All the p-values depict variables to be normally distributed. The null hypothesis was not rejected since the *p*-value was found to be higher than the significance level of 5% which is 0.05.

Heteroscedasticity Test

The dependent variable(s) exhibit variance levels that are equal across the range of the independent variable(s), in accordance with the homoscedasticity hypothesis.

Table 6 Breusch Pagan Heteroskedasticity test

Null hypothesis: Residuals are homoskedastic	Value	df	Probability
Chi-squared	0.635635	44	0.4253

Table 6 presents this study employed the heteroscedasticity test of Breusch-Pagan. The statistic for Breusch Pagan Test was found to be 0.635635 with an associated p-value of 0.4253. Since the p-value is more than >0.05, the Breusch Pagan test's null hypothesis indicated that there was no heteroscedasticity problem and the variables were homoskedastic.

Serial Correlation Test

To detect presence of autocorrelation in panel data, the study employed the Breusch-Godfrey Serial Correlation LM Test for autocorrelation against the null hypothesis that there was no first order autocorrelation.

Table 7 Breusch-Godfrey Serial Correlation LM Test:

Breusch-Godfrey Serial Correlation LM Test:			Probability
F-statistic	0.641556	Prob. F(2,513)	0.5269
Chi-Square	1.292226	Prob. Chi-Square(2)	0.5241

Table 7 presents, the Breusch-Godfrey serial correlation LM test was conducted for the panel data. The test statistics used were F-statistic 0.641556, p-value 0.5269 and Chi-Square, 1.292226, p-value 0. 5241.The null hypothesis was that no first order autocorrelation since the Probability > for F-statistic and Chi-Square > 0.0500 then there is fail to reject null hypothesis.

Multicollinearity Test

The variance inflation factor was used to test for multicollinearity (VIF). When the VIF number is less than 10, there is no multicollinearity. The independent variables are not correlated or have an influence on one another in this circumstance (Gujarati, 2009). Invalid significance tests emerge from this circumstance's issues, which may cause the regression coefficients to inflate or deflate, depending on the situation.

Table 8 Collinearity Test Statistics

Variables	Variance Inflation Factor VIF	Tolerance
Internally Generated Equity	5.891198	0.697976

Table 8 presents, the test for the presence of multicollinearity for those variables having variance inflation factor (VIF) of at least 10 as advised by Gujarati to test the existence of the issue. From table 8 the statistics were; internally generated equity variance inflation factor of 5.891198 and tolerance 0.697976,

Internally generated equity effect on financial performance

The following were the model specification assumptions adopted in the calculation of estimates in the regression model for hypothesis testing; Dependent Variable: ROA, Method: Panel Least Squares, Sample: 2012-2023, Periods included: 12, Cross-sections included: 44, Total panel (balanced) observations: 528, Effects Specification, Cross-section fixed (dummy variables), Period fixed (dummy variables).

Table 9 Internally generated equity on financial performance

Variable	Coefficient	Std. Error	t-Statistic	P-value
Internally Generated Equity	9.100565	4.085331	2.227620	0.0264
C	-0.243197	1.732089	-0.140407	0.8884
R-squared	0.406801	Mean dependent var		3.426553
Adjusted R-squared	0.337679	S.D. dependent var		15.10618
S.E. of regression	12.29388	Akaike info criterion		7.956084
Sum squared residuals	71337.85	Schwarz criterion		8.408867
Log likelihood	-2044.406	Hannan-Quinn criteria		8.133340
F-statistic	5.885204	Durbin-Watson stat		1.716347
Probability (F-statistic)	0.000000			

The first hypothesis of the study stated that there is a significant effect of internally generated equity effect on financial performance of non-financial firm listed at Nairobi Securities Exchange, Kenya. Internally generated equity was found to have a positive and statistically significant effect on the financial performance of non-financial firm listed at Nairobi securities exchange, according to the regression coefficient results (Beta = 9.100565, p-value = 0.0264).

According to the data, increasing internally generated equity by one unit will result in an increase in financial performance of non-financial firm listed at Nairobi Securities Exchange of 9.100565 units.

The Durbin-Watson statistic was discovered to be 1.716347, which is firmly within the desired range of a well-established model. The model summary results showed that internally generated equity accounts for 40.6801% of the fluctuations in financial performance of non-financial firm listed at Nairobi securities exchange, with other factors accounting for the remaining proportion. Githire and Muturi (2015), research revealed that whereas short-term liabilities had a negative and significant impact on financial performance, internal equity, external equity and long-term liabilities have a positive and large impact on financial success. This study's conclusion is that short-term financing reduces financial performance whereas equity and long-term liabilities financing improve financial performance as supported by the statements of Buigut et al. (2013).

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Findings

Examining the internally generated equity and financial performance of non-financial listed companies at Nairobi Stock Exchange, Kenya was the main goal of the study. According to the results of the correlation analysis, internally generated equity and financial performance of non-financial firms listed at Nairobi Securities Exchange, Kenya whereby the results were found to be correlated. Additionally, the results of the multiple regression analysis showed that internally generated equity have a statistically significant effect on the financial performance of non-financial firms listed companies at Nairobi Securities Exchange, Kenya. This suggests that the non-financial firms should improve on the internally generated equity financing decisions in order to stimulate financial performance of the same firms.

Conclusions

The study comes to the conclusion that listed non-financial firms, particularly those involved in the stock market, must have financing policies that aim to increase financing activities by using internally generated equity since the relationship was found to be positive and statistically significant effect. The findings suggest there is positive association between internally generated equity and financial performance of non-financial listed companies in Nairobi stock market are also supported by the regression results.

Recommendations

The study offers advice to the managers of listed non-financial firms in Kenya, advising them to concentrate on strengthening their internally generated equity management strategies because doing that would result in a better financial performance of listed non-financial companies at the Nairobi Securities Exchange, Kenya.

The non-financial listed firms can achieve this by engaging in share buybacks in order to increase shareholder value and show confidence in business, investing in new ideas e.g. fund product development, improve services and upgrade technology which finally will improve

financial performance, non-financial firms can also engage in paying special dividends which is a one-time dividends during profitable periods and hence during low profitable periods retained earnings can be utilised in boosting the performance of non-financial firms which will improve their financial performance.

Non-financial firms listed at Nairobi Security Exchange can also engage mergers and acquisition in order to grow the market share, this will improve financial performance of non-financial firms listed at Nairobi Securities Exchange, Kenya.

Areas of Further Studies

The Nairobi Securities Exchange's non-financial firms were the subject of the current investigation. Since this study was restricted to the Kenya's Nairobi Securities Exchange, it is necessary to perform comparative research study on non-financial listed firms, which will capture them as per sector in order to understand how the internally generated equity affects performance in different sectors of Kenyan economy. The study went on to prove that the internally generated equity accounts for 40.6801 % of variations in financial performance of non-financial listed at Nairobi Securities Exchange, Kenya.

REFERENCES

Agembe, A. K., Ngacho, C., & Chesoli, W. J. (2024). Modeling financial performance of manufacturing firms on capital structure. Does the panel data model used matter? Evidence from the Nairobi Securities Exchange. *International Academic Journal of Economics and Finance*, *4*(2), 424-443.

Akhtar, M., Yusheng, K., Haris, M., Ain, Q. U., & Javaid, H. M. (2022). Impact of financial leverage on sustainable growth, market performance, and profitability. *Economic Change and Restructuring*, *55*(2), 737-774.

Alvi, M. (2016). A manual for selecting sampling techniques in research.

Apuke, O. D. (2017). Quantitative research methods a synopsis approach. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, *6*(11), 40-47.

Atilgan, Y., Demirtas, K. O., Gunaydin, A. D., & Kirli, I. (2023). Average skewness in global equity markets. *International Review of Finance*, *23*(2), 245-271.

Baloch, H. (2015). *The Impact of Corporate Governance on Insolvency Risk of Firms: Empirical Evidence from Financial and Non-Financial Sector of Pakistan* (Doctoral dissertation, Pakistan Institute of Development Economics).

Baltagi, B. H., Bratberg, E., & Holmås, T. H. (2005). A panel data study of physicians' labor supply: the case of Norway. *Health economics*, *14*(10), 1035-1045.

Beyaztas, B. H., & Bandyopadhyay, S. (2022). Data driven robust estimation methods for fixed effects panel data models. *Journal of Statistical Computation and Simulation*, *92*(7), 1401-1425.

Bhaduri, S. N. (2002). Determinants of capital structure choice: a study of the Indian corporate sector. *Applied financial economics*, *12*(9), 655-665.

Buigut, K., Soi, N., Koskei, I., & Kibet, J. (2013). The effect of capital structure on share price on listed firms in Kenya. A case of energy listed firms. *European Journal of Business and Management*, *5*(9), 29-35.

Callegaro, M., Baker, R. P., Bethlehem, J., Göritz, A. S., Krosnick, J. A., & Lavrakas, P. J. (Eds.). (2014). *Online panel research: A data quality perspective*. John Wiley & Sons.

Cao, Y., & Su, L. (2025). Test for serial correlation in panel data models with interactive fixed effects. *Econometric Reviews*, 1-45.

Cardoso, F. C., Berri, R. A., Lucca, G., Borges, E. N., & de Mattos, V. L. D. (2025). Normality tests: a study of residuals obtained on time series tendency modeling. *Exacta*, *23*(1), 134-158.

Christy, D., & Nurhasanah, N. (2024). The Effect of Return on Assets, Current Ratio, Debt to Equity Ratio on Tax Avoidance with Capital Intensity as a Moderating Variable (Empirical Study on Property and Real Estate Companies Listed on the Indonesia Stock Exchange in 2020-2023). *Countable (Contemporary Business and Sustainability Science)*, *1*(2), 145-157.

Dada, A. O., & Ghazali, Z. (2016). The impact of capital structure on firm performance: Empirical evidence from Nigeria. *IOSR Journal of Economics and Finance*, *7*(04), 23-30.

Dahabreh, I. J., & Hernán, M. A. (2019). Extending inferences from a randomized trial to a target population. *European journal of epidemiology*, *34*(8), 719-722.

Dahmash, F. N., Alshurafat, H., Hendawi, R., Alzoubi, A. B., & Al Amosh, H. (2023). The retained earnings effect on the firm's market value: evidence from Jordan. *International Journal of Financial Studies*, *11*(3), 89.

Dalla, V., Giraitis, L., & Phillips, P. C. (2022). Robust tests for white noise and cross-correlation. *Econometric Theory*, *38*(5), 913-941.

Daoud, J. I. (2017, December). Multicollinearity and regression analysis. In *journal of physics: Conference series* (Vol. 949, No. 1, p. 012009). IOP Publishing.

Ernayani, R., Robiyanto, R., & Sudjinan, S. (2017). Factors influencing profit distribution management of sharia commercial banks in Indonesia. *Journal of Economics, Business & Accountancy Ventura*, *20*(2), 187-192.

Fatoki, O. (2021). Access to finance and performance of small firms in South Africa: The moderating effect of financial literacy. *WSEAS Transactions on Business and Economics*, *18*, 78-87.

Galdeano, D., Ahmed, U., Fati, M., Rehan, R., & Ahmed, A. J. M. S. L. (2019). Financial performance and corporate social responsibility in the banking sector of Bahrain: Can engagement moderate. *Management Science Letters*, *9*(10), 1529-1542.

Gill, A., Biger, N., & Mathur, N. (2011). The effect of capital structure on profitability: Evidence from the United States. *International journal of management*, *28*(4), 3.

Girangwa Kakiya, G., Rono, L., & Mose, J. (2019). Effect of risk management, intellectual capital on performance of state corporations in Kenya: Moderating approach. *International Journal of Business and Economic Sciences Applied Research (IJBESAR)*, *12*(3), 51-61.

Githire, C., & Muturi, W. (2015). Effects of capital structure on financial performance of firms in Kenya: Evidence from firms listed at the Nairobi securities exchange. *International journal of economics, commerce and management*, *3*(4), 1-10.

González-Estrada, E., & Cosmes, W. (2019). Shapiro–Wilk test for skew normal distributions based on data transformations. *Journal of Statistical Computation and Simulation*, *89*(17), 3258-3272.

Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics*. McGraw-hill.

Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the econometric society*, 1251-1271.

Hsiao, C. (2022). *Analysis of panel data* (No. 64). Cambridge university press.

Iseringhausen, M., Petrella, I., & Theodoridis, K. (2023). Aggregate skewness and the business cycle. *Review of Economics and Statistics*, 1-38.

Jarque, C. M., & Bera, A. K. (1987). A test for normality of observations and regression residuals. *International statistical review/revue internationale de statistique*, 163-172.

Javed, F., & Shah, F. M. (2015). Impact of Retained Earnings on stock returns of food and personal care good industry listed In Karachi Stock Exchange. *International Journal of scientific and Research publications*, *5*(11), 397-407.

Kabando, P. N., & Otinga, J. M. W. D. H. (2021). Effect of Financial Structure on Financial Performance of Firms in the Construction and Allied Industry Listed at the Nairobi Securities Exchange in Kenya.

Kakiya, A. A., & Bosire, M. (2019). The relationship between capital budgeting practices and financial performance of commercial state corporations in Kenya. *International Journal of Business Management and Finance*, *3*(2), 181-189.

Kerim, A., Alaji, J., & Innocent, I. O. (2019). Effect of capital structure on the profitability of listed insurance firms in Nigeria. *American International Journal of Economics and Finance Research*, *1*(2), 36-45.

Kliestik, T., Valaskova, K., Lazaroiu, G., Kovacova, M., & Vrbka, J. (2020). Remaining financially healthy and competitive: The role of financial predictors. *Journal of Competitiveness*, (1).

Kurere, C., Limo, P., & Tenai, J. (2021). Interaction of Board Capital on Dividend Pay-Out and Financial Performance of Firms listed at Nairobi Securities Exchange in Kenya. *African Journal of Education, Science and Technology (AJEST)*, *6*(2), Pg-1.

Lavrakas, P. J., Traugott, M. W., Kennedy, C., Holbrook, A. L., de Leeuw, E. D., & West, B. T. (Eds.). (2019). *Experimental methods in survey research: Techniques that combine random sampling with random assignment*. John Wiley & Sons.

M'tuaruchiu, J. K. (2024). *Business Turnaround Strategies and Performance of Large Manufacturing Firms in Kenya* (Doctoral dissertation, JKUAT-COHRED).

Madukaife, M. S. (2023). A new estimator of Shannon entropy with application to goodness-of-fit test to normal distribution. *Asian Research Journal of Mathematics*, *19*(10), 130-139.

Maina, L., & Ishmail, M. (2014). Capital structure and financial performance in Kenya: Evidence from firms listed at the Nairobi Securities Exchange. *International Journal of Social Sciences and Entrepreneurship*, *1*(11), 209-223.

Matar, A., & Eneizan, B. M. (2018). Determinants of financial performance in the industrial firms: Evidence from Jordan. *Asian Journal of Agricultural Extension, Economics & Sociology*, *22*(1), 1-10.

Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative & qualitative apporaches* (Vol. 2, No. 2). Nairobi: Acts press.

Mukumbi, M. C., Eugine, K. W., & Jinghong, S. (2020). Effect of capital structure on the financial performance of non-financial firms quoted at the Nairobi Securities Exchange. *International Journal of Science and Business*, *4*(4), 165-179.

Ngui, I. N., & Atheru, G. (2023). *Board Composition and Financial Performance of Manufacturing and Allied Firms Listed at the Nairobi Securities Exchange, Kenya* (Doctoral dissertation, Kenyatta University).

Ogachi, D. O. (2021). *Ratio Analysis Determinants of Financial Performance of Listed Banks in Kenya* (Doctoral dissertation, Magyar Agrár-és Élettudományi Egyetem).

Ogachi, D., Ndege, R., Gaturu, P., & Zoltan, Z. (2020). Corporate bankruptcy prediction model, a special focus on listed companies in Kenya. *Journal of Risk and Financial Management*, *13*(3), 47.

Oganda, A. J., Museve, E., & Mogwambo, V. A. (2022). Analysis of retained earnings financing on financial performance of listed manufacturing and allied firms: A dynamic panel approach.

Ott, R.L. and Longnecker, M.T.: 2015, An Introduction to Statistical Methods and Data Analysis, Nelson Education.

Owade, W. (2023). *Capital market reforms and market efficiency: case of the Nairobi Securities Exchange, Kenya* (Doctoral dissertation, Strathmore University).

Owolabi, S. A., & Inyang, U. E. (2013). International pragmatic review and assessment of capital structure determinants. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, *2*(6), 82-95.

Pibowei, W. E., Odong, N. E., & Jimoh, O. F. (2021). Impact of retained earnings on the financial performance of selected Nigerian breweries in times of crises (2012-2020). *RUJMASS Journal*, *7*(2), 72-83.

Salim, M., & Yadav, R. (2012). Capital structure and firm performance: Evidence from Malaysian listed companies. *Procedia-Social and Behavioral Sciences*, *65*, 156-166.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., ... & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & quantity*, *52*(4), 1893-1907.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. john wiley & sons.

Stockemer, D., & Stockemer, G. (2019). Glaeser. Quantitative Methods for the Social Sciences; Quantitative Methods for the Social Sciences.

Taherdoost, H. (2016). Sampling methods in research methodology; how to choose a sampling technique for research. *International journal of academic research in management (IJARM)*, *5*.

Tanjung, P. R. S., Wahyudi, S. M., & Chairunesia, W. (2019). Effect Of Corporate Social Responsibility Disclosure And Good Corporate Governance Implementation On Response Coefficient Earnings (Asean Country Cross Study 2016-2018). *Archives of Business Research (ABR)*, *7*(7).

Tripathy, J. P. (2013). Secondary data analysis: Ethical issues and challenges. *Iranian journal of public health*, *42*(12), 1478.

Uddin, M. (2015). Financial health soundness measurement of private commercial banks in Bangladesh: an observation of selected banks. *The Journal of Nepalese Business Studies*, *9*(1).

Verbeke, A., & Tung, V. (2013). The future of stakeholder management theory: A temporal perspective. *Journal of business ethics*, *112*(3), 529-543.

Walliman, N. (2015). Social research methods: The essentials.

Whitaker, A., & Kräussl, R. (2025). The Real Value of Art: Investment Returns Using Costs of Production. *Available at SSRN 5287143*.

Yapa Abeywardhana, D. (2017). Capital structure theory: An overview. *Accounting and finance research*, *6*(1).

Yemi, A. E., & Seriki, A. I. (2018). Retained earnings and firms' market value: Nigeria experience. *The Business & Management Review*, *9*(3), 482-496.