Equity Structure Effect on Financial Soundness of Non-Financial Companies Listed in Kenya

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Abstract

Since independence, Kenya has experienced numerous instances of corporate failure among public listed companies. In addition, cases of operating but financially struggling corporations have been witnessed. This has not only eroded investors' confidence in the capital market but has also culminated in loss of shareholders' wealth. Subsequent investigation reports by government agencies have attributed this undesirable phenomenon to the tendency by listed corporations to employ aggressive financing strategy resulting to over-gearing. Empirical studies have however shown that use of borrowed capital is not singularly detrimental to firms. Considering the dichotomous modes of corporate financing (debt and equity), there is need to investigate how equity financing influences corporate financial soundness. This study therefore sought to shed light on the effect of equity structure on financial soundness of non-financial companies listed in Kenya. The study employed panel research design. A census of the 40 non-financial companies listed as at 31st December 2013 was taken. The study used secondary data extracted from the published financial statements of listed non-financial companies over the 10 year period from 2004 to 2013. The study estimated the specified panel regression model for random effects as supported by the Hausman test results. Feasible Generalized Least Square (FGLS) regression results revealed that employment of internal equity has a positive and significant effect on financial soundness of non-financial firms while external equity is negatively and significantly related to financial soundness of listed non-financial firms. On the basis of these empirical revelations, the study recommended that managers of listed non-financial companies should embrace use of internal equity in financing their firms and employ external equity sparingly in an effort to promote the level of financial soundness.

Keywords: Equity structure, over-gearing, financial soundness, non-financial

1.0 Introduction

Equity constitutes one of the two principal sources of corporate finance. The mix of equity and debt components yields the firms' capital structure and represents the major claims on the corporations' assets (Pandey, 2009). According to Fabozzi (2009), equity forms the residual ownership of the firm by existing shareholders. In corporate finance theory, firms have two main sources of equity capital: internal equity and external equity (Brealey & Myers, 1999). Internal equity constitutes funds generated internally but not distributed to shareholders in form of dividends. Such capital includes the retained earnings and reserves. On the other hand, external equity comprise all funds acquired externally with exception of debt (Smith Jr, 1988). Typical sources include: issued and paid-up share capital, share premium and minority interest.

Corporate financial soundness has been defined as the state of the firm being out of risk of financial failure (Damijan, 2014). According to Hillegeist, Keating, Cram, and Lundstedt (2004), financial failure may arise from lack of liquidity, capital inadequacy, volatile profitability, inept management systems that precipitates corruption and fraud as well as situations of severe competition. The implication of this definition is that those financially unsound firms are generally insolvent and unable to meet financial obligations as they fall due. Sundararajan et al. (2002) Observed that financial soundness provide information concerning the overall corporate financial health and is a good indicator of firm quality.

In contrast to corporate financial performance that considers the financial status of the firm in the short run; such as profitability, liquidity and share market value, financial soundness is concerned with the long term financial viability of the corporation (Moorhouse, 2004). Over the past two decades, the world has with devastating effects witnessed numerous cases of failure among globally reputable corporations. These entities that include: General Motors (2009), Swissair (2001), The CIT Group (2009), Conseco (2002), Pacific Gas & Electric Ltd (2001), Delta Air lines (2005), Parmalat (2003), Enron (2001) and WorldCom (2002) represented the icons of corporate financial stability prior to filing for bankruptcy. Their collapse therefore came with tremendous surprise to researchers, analysts, and industry practitioners. On the local front, Kenya has since independence also experienced many instances of corporate bankruptcy among listed companies. Examples of such firms include: Uchumi Super Markets (2006), KPCU (2009), East African Packaging (2003), Dunlop Kenya, Regent Undervalued Assets Ltd (2001), Lonhro EA Ltd (2001) and Theta Group (2001) just to mention a few (Kalani & Waweru, 2007). This has seen many of these firms being placed under receivership, undertaking financial restructuring or even being delisted from the NSE. The situation has not only resulted to loss of shareholders' wealth but has also significantly eroded investors' confidence in the stock market. This undesirable phenomenon has motivated research aimed at examining the underlying cause of firm failure.

Post-mortem investigations conducted by government agencies have attributed this phenomenon to aggressive financing among the firms; resulting to over-gearing situations (Magara, 2012). This has ignited debate among analysts and members of the public alike who have dismissed these explanations on grounds of political expediency and lack of scholarly underpinning (Ongore, 2011). It is also notable that empirical research conducted in this domain has largely concentrated on investigating the effect of debt financing on corporations' financial soundness with miniscule work done aimed at establishing the effect of equity financing on corporate financial soundness. A review of existing studies however reveals that conflicting results have been provided with regard to how equity financing influences corporate financial soundness. More so, there exists no convergence on empirical relationship between different equity sources and corporate financial soundness. It is against this background that this study is carried out.

1.1 Statement of the Problem

Since independence, the government and the private sector have invested heavily in creating a conducive environment to do business in Kenya. While some companies have indeed performed exceedingly well, others have struggled financially. This has culminated in firms being put under receivership, undertaking financial restructuring and some have even been delisted from the NSE. Efforts to revive the ailing firms have often not been successful and have ended up in liquidation. This has not only led to loss of shareholders' wealth but has also eroded confidence in the capital markets.

Subsequent investigation commissioned by the government aimed at establishing the causes of corporate insolvency have largely blamed this phenomenon on aggressive financing by listed firms in terms of utilizing excessive debt to finance their assets. These reports have nonetheless not gained traction among analysts and investors who have dismissed the findings on grounds of political expediency and lack of scholarly underpinning (Mwega, 2011). Empirical research in this domain has largely investigated the effect of debt financing on corporations' financial soundness with miniscule work aimed at establishing the effect of equity financing on corporate financial soundness. In addition, a review of available research studies has however revealed conflicting results with regard to effect of different sources of equity financing on corporate financial soundness. Specifically, studies carried out by Forsaith and McMahon (2002), Cosh and Hughes (1994) and Elsas, Flannery, and Garfinkel (2004) showed that use of internal equity has a positive and significant effect on financial soundness of corporate entities. However, Richardson and Sloan (2003), Brown (2005) and Sciascia and Mazzola (2008) in their studies postulated that financing firms by issuing external capital improves their financial soundness and sustainability. Such contradictory empirical observations indicate that the effect of equity structure on corporate soundness is largely inconclusive and require a thorough scholarly investigation.

This study is therefore designed to address this scholarly gap. Unlike previous empirical studies that investigated the effect of equity structure based on financial performance variables such as profitability and firm value, this study adopts the degree of financial distress to proxy the level of corporate financial soundness. This methodology derives from the observation by Sundararajan et al. (2002) that financial soundness provides information on the overall financial health of a firm and is a good indicator of firm quality.

In addition, Moorhouse (2004) opined that contrary to corporate financial performance which considers specific (limited) aspects of the firm's operation such as turnover, profitability, and liquidity, financial soundness evaluates the long run solvency of the firm.

1.2 Research Objectives

The overall objective of the study is to establish the effect of equity structure on financial soundness of non-financial firms listed in Kenya. The study was guided by the following specific objectives:

 i.   To establish how internal equity influences the financial soundness of non-financial firms listed in Kenya.
 ii.   To determine the effect of external equity on the financial soundness of non-financial firms listed in Kenya.

1.3 Research Hypotheses

Based on the identified objectives, the study tested the following hypotheses:

 i. H_01: Internal equity does not significantly contribute to financial soundness of non-financial firms listed in Kenya.
 ii. H_02: External equity has no significant effect on financial soundness of non-financial firms listed in Kenya.

2.0 Literature review

This section presents a review of both theoretical and empirical literature that show the relationship between equity structure and financial soundness of corporations.

2.1 Theoretical Review

This section describes the main theoretical orientation that provides insight on the relationship between equity structure and corporate financial soundness.

2.2 Pecking Order Theory

Myers and Majluf (1984) Introduced the information asymmetry dimension to the pecking order hypothesis proposed earlier by Donaldson (1961). They argued that existence of information asymmetries between the firm and providers of capital causes the relative costs of financing to vary between the different sources. For instance, an internal source of finance where the funds provider is the firm will have more information about the firm than external financiers such as debt holders and equity holders thus; these outsiders will expect a higher rate of return on their investments. This means that it costs the firm more to obtain external capital than using internal funds.

Another dimension of presenting the information asymmetry effect on financing is that in normal circumstances, the insiders who constitute the managers and directors have more knowledge about the firm than outsiders with regard to the firm's earning potential. This inadequate information among the outsiders makes them to undervalue the firm. Based on the assumption that managers act in favor of the interest of existing shareholders, they refuse to issue undervalued shares unless the value transfer from existing to new shareholders is more than offset by the net present value of the growth opportunity. This leads to the conclusion that new shares will only be issued at a higher price than that imposed by the real market value of the firm.

Therefore, investors interpret the issuance of equity by a firm as signal of overpricing. If external financing is unavoidable, the firm will opt for secured debt as opposed to risky debt and firms will only issue common stocks as a last resort. Myers and Majluf (1984), maintain that firms would prefer internal sources to costly external finance. Thus, according to the pecking order hypothesis, firms that are profitable and therefore generate high earnings are expected to use less internal capital than those that do not generate high earnings. If internal funds are not sufficient, the managers will issue debt first so as to safeguard the existing shareholders against the diluting effect. They will only issue external equity when they are convinced that the market has fully appreciated the firm's potential in which case the external equity would be overvalued.

The theoretical implication is that there exists a clear financing hierarchy and there is no well-defined target debt ratio as suggested under the trade-off theory. This theory provides for preference to use of internal funds in place of external funds that encapsulate debt and equity in an effort to preserve value and firm stability. The implication is that increased use of external capital such as debt and equity influences the firm value negatively and increases the chances of insolvency.

2.3 Empirical Literature

Forsaith and McMahon (2002) Conducted a study of 871 Australian manufacturing SMEs aimed at identifying the manner in which different sources of equity finance influenced their growth levels over the five year period 1994 - 1998. Internal equity was proxied by the ratio of retained earnings to total assets while issued share capital to total capital represented external equity. Growth level was measured by year-on year growth in turn-over. After controlling for firm size and GDP growth, the regression results showed significant positive coefficient on internal equity variable while the coefficient for external equity was significant and negative at 10% significance level. The findings showed that while internal equity increased the growth rate, external equity was not favorable to the firms. The results were consistent with those by Cosh and Hughes (1994) whose study of 217 UK firms over the period 1982 – 1988 depicted use of internal equity as profitable to the firms. Further, the findings support the pecking order hypothesis of capital structure.

In a study of 195 US firms, Park and Pincus (2001) used the ARIMA models to determine the manner in which equity structure affected the firms' earnings response coefficient (ERC). The cumulative abnormal returns were used as the dependent variable while the interaction between internal equity-external equity ratio and unexpected earnings (UX) as well as leverage were used as explanatory variables. Upon controlling for firm size and growth opportunities variables, the study results indicated that internal equity-external equity ratio significantly and positively influenced earnings response coefficient. The implication was that firms with higher proportions of internal equity capital registered higher returns per share as opposed to those with minimal internal capital. The findings however contrasted those by Margaritis and Psillaki (2007) whose study of 113 Greek firms concluded that the sources of equity financing had no significant effect on the firm value as measured by Tobin's Q.

Elsas et al. (2004) Conducted a study of 977 German-based firms that undertook major investments during the period 1989 – 1999. The study's objective was to identify how internal and external modes of financing affected the firm's performance with regard to long-run abnormal stock returns. This was done by identifying the predominant source of financing each investment and then separating the valuation effects of that investment from the effects related to financing decisions. Debt (long term and short term) and externally issued equity (both common and preferred stock) constituted external sources of financing while cash flow from operations constituted internal equity. The dependent variable for the study (long run stock performance) was determined by Fama and French (1993) three factor model. The study found that the returns from internally financed investments outperformed the returns of investments that were predominantly funded from external sources. The findings were however at variance with those by Richardson and Sloan (2003) whose study led him to observe that cash from newly issued securities simply replaces another source of funding just as when a maturing bond is replaced by another. He further concluded that newly issued securities enabled the firm to grow faster than internal funds alone would permit.

Brown (2005) Used the Cox proportional hazard model to examine the differences in   survival durations between venture- and non-venture-backed firms in the US high-tech sector over the one decade (1980 – 1989) following their IPO. The study also appraised the performance of the firms with regard to assets and sales growth, Tobin's Q and operating performance during the period. After controlling for size and age of the firms, the results showed that venture-backed firms exhibited longer survival durations than non-venture-backed firms. They also reported higher growth rates as well as superior operating performances. The study therefore concluded that overreliance on internal sources of funds denied firms in the high-tech sector opportunities to experience growth and resulted to higher levels of cumulative exit rates. The finding concurs with that by Sciascia and Mazzola (2008) whose study of 317 Italian firms revealed that firms with high proportions of external equity performed better in terms of profitability and hence stock returns as compared to internally funded firms. He attributed this trend to improvement in governance and discipline among managers.

2.4 Comments on Literature Review

As can be noted, the results of empirical literature on the relationship between equity structure and financial soundness are contradictory which justifies further research. Also, different proxies of measuring financial soundness have been adopted by different researchers. The most popular measures include: profitability, liquidity and investment growth.

This study differs from previous studies by adopting the Altman's Z-score index of financial distress (modified for emerging markets) as a measure of financial soundness. Being a weighted measure of the individual indicators of financial performance, this measure provides a comprehensive appraisal of corporate financial soundness.

2.5 Conceptual Framework

A conceptual framework is a graphical or diagrammatical representation of the relationships between the variables being investigated by the study (Myers, 2013). Based on the theoretical literature reviewed by the study a conceptualization of the interrelation between individual constructs of equity structure and financial soundness of non-financial firms listed in Kenya is presented in figure 2.1.
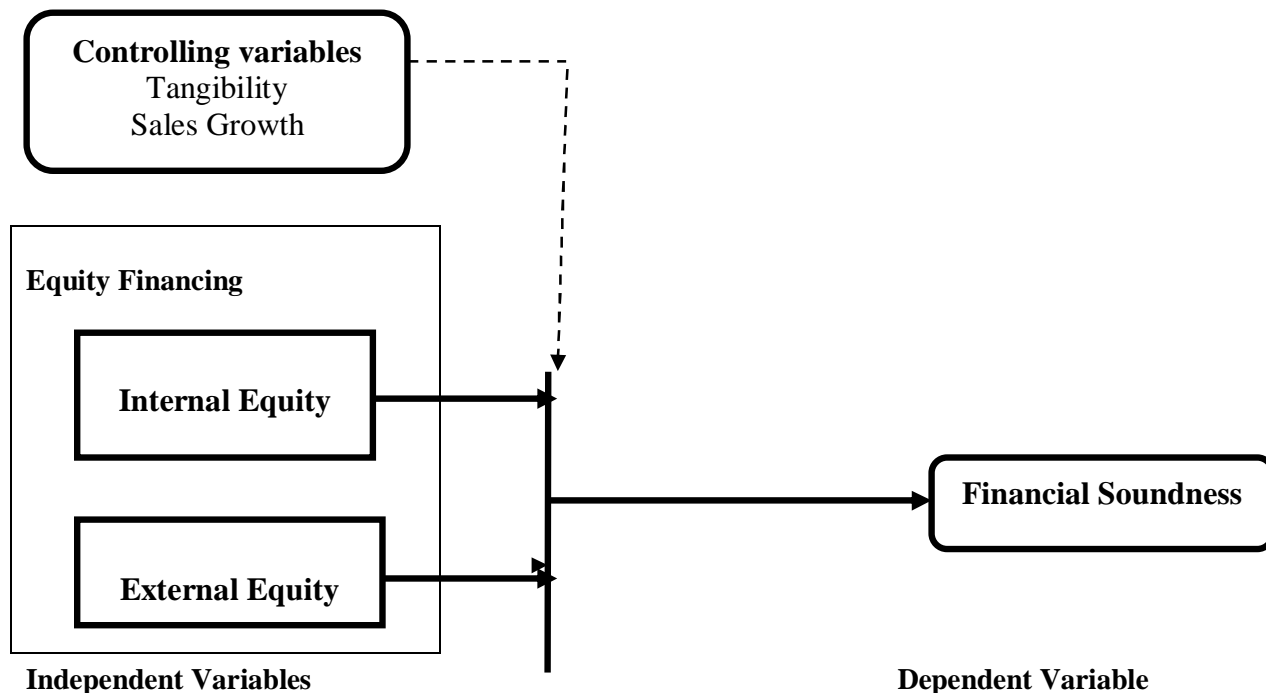
Figure 2.1: Conceptual Framework

3.0 Methodology

3.1 Research Design

The study employed Panel quantitative research design. This is because the data used in the study was of quantitative nature arrived at through ratios organized in form of panels. This research design is suitable in studies where both the cross-sectional and time dimensions of the units being studied are required (Gujarati, 2003).

3.2 Target Population

The population of the study comprised all the non-financial companies listed in the NSE as at December 2013. In total, 40 non-financial firms were listed in the NSE as at that date. According to Mugenda and Mugenda (2003), a census is preferred where the population is small and manageable. Further, census method enhances validity of the collected data by eliminating errors associated with sampling (Saunders, Lewis, & Thornhill, 2009). The study omitted firms listed within banking and insurance sectors since they are associated with tight regulations with regard to capital holding and liquidity operations. As observed by Mwangi, Muathe, and Kosimbei (2014), this heterogeneity makes it difficult to make it difficult to conduct hypothesis testing for the study.

3.3 Data collection Procedures

The study used secondary data extracted from audited financial statements and annual reports of individual non-financial firms during the ten years period (2004 – 2013). Where relevant data was missing from the set of audited accounts, NSE handbooks that comprised of summaries of past financial information were used. The data obtained for all variables in each firm was organized in panels. According to Baltagi, Bratberg, and Holmås (2005) Panel data is suitable for longitudinal analysis because it provides both the time and cross-sections dimensions.

3.4 Data Analysis

Upon extracting the relevant data from the financial statements and NSE hand books, Excel program was used to compute the ratios for the study variables in each firm for every year. Descriptive statistics such as measures of central tendency and measures of dispersion were used to summarize and profile the pattern in each firm. In addition, panel regression analysis using State Version 11 was employed to establish the nature and significance of the relationship between independent variables and dependent variable. Significance of individual explanatory variable on the dependent variable was carried out using t-test at 5% significance level. Joint significance of the regression model was performed by means of F-test.

3.5 Measurement of study variables

The table below shows how the variables used in the study were measured and operationalized.

Table 3.1: Measurement of Study Variables

Variables	Measurements	Notation
Independent Variables		
Internal Equity	(Retained earnings + Reserves)/Total Equity	IE
External Equity	(Share capital + Share premium + Minority interest)/Total Equity	EE
Controlling Variables		
Tangibility	Total Non-current assets/Total Assets	TANG
Sales growth	$\dfrac{Sales_t - Sales_{t-1}}{Sales_{t-1}}$	SG
Dependent Variable		
Financial Soundness	The Z-score index of financial distress as determined from the Altman's (1993) Model for the emerging markets	

$$Z - score = 3.25 + 6.56x_1 + 3.26x_2 + 6.72x_3 + 1.05x_4$$

Where:

Z = Financial distress index (emerging market score),

X_1 = Net working capital/Total assets,

X_2 = Retained earnings/Total assets,

X_3 = Earnings before Interest and Taxes/Total Assets,

X_4 = Book value of equity/Book value of total liabilities

Zones of discrimination: Z > 5.85: Safe zone, 4.15 <Z <5.85: Gray zone, Z <4.15: Distress zone.

Source: Altman & Hotchkiss (2006, pp. 267-8)

3.6 Empirical Model Specification

The study estimated the following regression model to determine the relationship between the individual factors and financial soundness.

$$FS_{it} = \alpha_0 + \alpha_1 IE_{it} + \alpha_2 EE_{it} + \alpha_3 TANG_{it} + \alpha_4 SG_{it} + \varepsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (1)$$

Where:

FS_{it} = Financial soundness

IE_{it} = Internal equity

EE_{it} = External equity

α_0 = Intercept term

α_1 - α_4 represents the coefficients of explanatory variables

ε_{it} = Error term (the time-varying disturbance term is serially uncorrelated with mean zero and constant variance)

i = 1……. 40

t = time in years from 2004 – 2013

4.0 Results and Discussions

4.1 Descriptive statistics

Table 4.1: Summary statistics

Statistics	Mean	Std. dev	Median	Max	Min	Skewedness	Kurtosis	Count
Z-Score	7.851	3.008	7.445	19.423	-1.512	0.825	4.797	367
Internal	0.775	0.202	0.849	1.000	0.107	-1.141	3.381	367
External	0.232	0.218	0.151	0.893	0.000	1.252	3.653	367
Tangibility	0.561	0.225	0.606	0.980	0.038	-0.295	1.967	367
Sales growth	0.131	0.262	0.113	1.187	-0.633	0.758	5.746	329

Table 4.1 shows that on average, non-financial firms listed in Kenya had a Z-score index of 7.85. This depicts a fairly non-distressed status for the firms; signifying that majority of the firms were financially sound in relation to the Altman's distress zones (Z<4.15, distress zone; 4.15<Z<5.85, grey zone; Z>5.85, safe zone). The standard deviation equal to 3.008 coupled with maximum and minimum Z-score observations of 19.423 and -1.512 respectively shows a wide variability on financial soundness levels among the firms. This could be attributed to the fact that listed firms operate within different sectors which are characterized with varying sectoral dynamics. The results further shows that non-financial firms on average employ more internal equity (77.5%) as compared to external equity (23.2%) to finance their assets. This preference for internal equity could be attributed to the relatively lower cost of maintaining this mode of financing as well as the stringent compliance requirements instituted by the Capital Market Authority (CMA) for firms willing to issue new equity.

Table 4.1 further shows that non-financial firms are relatively tangible at 56.1%; indicating that most of their assets were of fixed nature. During the period of study, the average growth in sales revenue was 13.1%. This implies a sustained growth in sales turnover during the 10 years period covered by the study. The standard deviation of 26.2% indicate a significant variation in sales growth as evidenced by the maximum observed sales growth rate was 118.7% and a minimum of -63.3% (decline).Both the Skewness and Kurtosis shows that the data on all variables was nearly normally distributed (at 0 and 3) respectively and hence suitable for further statistical analysis.

4.2 Panel data Diagnostic tests

To determine the suitability of panel data for statistical analysis, various tests were conducted. The tests that aimed at establishing if the panel data fulfilled the cardinal requirements of classical linear regression analysis included: panel unit root test, panel-level heteroscedasticity test, test for multicollinearity among the explanatory variables and serial correlation test. Where violation to these assumptions was detected, appropriate remedies were employed.

4.2.1 Panel Unit Root Test

Panel unit root test was conducted on all variables used in the analysis to determine whether or not the panel data was stationary. This involved solving for the value of ρ in the general equation:

$$Y_{it} = \alpha + \rho Y_{it-1} \pm \mu_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where: t = 1….10 years and i = 40 firms

If $\rho = 1$, it imply that the observation Y_{it} was dependent on its lag value Yi_{t-1} and hence the data was non-stationary (Gujarati, 2003). The converse would be true if $\rho < 1$. The necessity of this procedure was to avoid a situation where the regression results were spurious; hence jeopardizing testing of hypothesis concerning the significance or otherwise of the explanatory variables (Granger & Newbold, 1974). The study applied Fisher-type test (with trend) because it has more advantages than other panel unit root tests. The Fisher-type unit root test requires specification of Dickey-Fuller to test whether a variable has unit root.

Table 4.2: Fisher-type (with trend) unit root test results

Variable	Statistic	*p*-value
Z-score	230.8624	0.0000
Internal Equity	176.2539	0.0000
External Equity	159.9525	0.0000
Tangibility	132.3837	0.0002
Sales Growth	286.908	0.0000

H_0: All panels contain unit roots; Significance level: 5%

Based on the results displayed in Table 4.2, the study rejected the Null hypothesis that the panel data contained unit roots at 5% significance level. Effectively, the study concluded that all the variables did not have unit root and were therefore were used in levels instead of their first difference.

4.2.2 Panel-level Heterescedasticity Test

To test for panel level heteroscedasticity, the study adopted Breusch-Pagan/Cook-Weisberg test for heteroscedasticity. This involved first estimating the specified empirical model by OLS and then running the test against the null hypothesis of homoscedastic (constant) error variance (Torres-Reyna, 2007) . The tests results provided chi-square distribution value of 13.82 with a corresponding p-value of 0.0002. The results show that the chi-square statistic was significant at 5 percent level and hence the null hypothesis of constant variance was rejected. This signify presence of panel-level heteroscedasticity in the data as recommended by (Wiggins & Poi, 2001). To correct this violation of classical linear regression assumptions, the study employed either the feasible generalized least squares (FGLS) estimation technique instead of the ordinary least squares method.

4.2.3 Serial Correlation Test

To detect presence of autocorrelation in panel data, the study applied the Wooldridge test for autocorrelation against the null hypothesis that there was no first order autocorrelation. The test results provided F-statistic value of 5.997 at 1 and 38 degrees of freedom. The F-statistic value had a corresponding *p*-value of 0.0191 indicating that the null hypothesis of no first order autocorrelation was strongly rejected at 5% significance level. The result therefore concluded that the panel data suffered from the problem of first-order autocorrelation. The study remedied this violation of classical linear regression model assumption by employing FGLS estimation technique (Mwangi et al., 2014).

4.2.4 Test for Multi co linearity

The study tested for multi co linearity using pair wise correlation between the explanatory variables.

Table 4.3: Pair wise Correlation Matrix Results

	Z-Score	Internal equity	External equity	Tangibility	Sales growth
Z-Score	1				
IE	0.2809*	1			
EE	-0.2326*	-0.7484*	1		
Tangibility	-0.1524*	-0.1606*	-0.3865*	1	
Sales growth	0.0934	0.0749	-0.0791	-0.0716	1

The asterisk * signify significance at 5% level

Table 4.3 show that the pair wise correlation coefficients between all independent variables were less than 0.8 implying that the variables did not exhibit severe multi co linearity as recommended by (Gujarati, 2003).

4.3 Panel Model Regression Results and Hypothesis Testing

4.3.1 Hausman Specification Test

In order to establish which panel effects (between fixed and random) provide better estimation results for the study, Hausman test was carried out for the specified panel regression model. The test was conducted against the null hypothesis that random effect model was the preferred model. The Hausman test results provided a chi-square value of 6.81 and a corresponding *p*-value of 0.1465. The result indicates that the chi-square statistic was statistically insignificant at 5% level. Effectively, the study failed to reject the null hypothesis that random affects model was appropriate. Therefore, the panel regression model was estimated for random effects as recommended by (Torres-Reyna, 2007).

Table 4.4: FGLS (Random effects) Panel Regression Results

Variable	Coefficient	Std. Error	t-value	p-value
Dependent Variable: Financial Soundness				
Constant	10.9295*	2.7065	4.04	0.0000
Internal Equity	1.9945	2.5768	0.77	0.4390
External Equity	-3.6050	2.5801	-1.4	0.1620
Tangibility	-6.7780*	0.8662	-7.82	0.0000
Sales growth	0.0809	0.3074	0.26	0.7920
Statistics				
Adjusted R2	0.7206			
Rho	0.7975			
Wald Chi2 (4)	94.02			
Prob.(Wald)	0.0000			
Observations	367			

The asterisk * Signify significance at 5% level

Table 4.4 show the results of panel regression model (1) estimated for random effects with financial soundness being the dependent variable and internal equity, external equity, tangibility and sales growth as the independent variables. The results shows the model had a coefficient of determination (R-squared) equivalent to 0.7206 signifying that the fitted explanatory variables explained up to 72.06 of variations in the dependent variable. The Wald statistic of 94.20 together with the corresponding *p*-value of 0.0000 indicates that the explanatory variables were jointly statistically significant at 5% significant level.

The results show that the intercept term, as well as the coefficients of assets tangibility is statistically significant at 5 percent level as their corresponding *p*-values were less than 0.05. However, the coefficients of internal equity, external equity, and sales growth are insignificant at 5% level with *p*-values of 0.4390, 0.1620 and 0.7920 respectively. The statistical insignificance of internal and external equity variables could be attributed to significantly high negative correlation coefficient (-0.7484) between the variables that could point to problem of multi co linearity as laid out in Table 4.3 (Gujarati, 2003). To deal with this problem, each highly collinear variable was dropped alternately and panel regression equation estimated again. The results of the step-wise regression estimation are illustrated in Table 4.5.

Table 4.5: Step-wise FGLS (Random effects) Panel Regression Results

Dependent Variable:	Financial Soundness	
	Equation 1[a]	Equation 1[b]
Variable	Coefficient (prob.)	Coefficient (prob.)
Constant	7.3672 (0.0000)*	12.9525 (0.0000)*
Internal equity	5.3791 (0.0000)*	
External equity		-5.4825 (0.0000)*
Tangibility	-6.5955 (0.0000)*	-6.8495(0.0000)***
Sales growth	0.0889(0.7730)	0.0701(0.8190)**
Statistics		
R-Squared	0.7044	0.7176
Rho	0.7946	0.7969
Wald-statistic	91.57	93.50
Prob.(Wald-statistic)	0.0000	0.0000
Observations	367	367

The asterisk * Signify significance at 5% level

The regression results displayed on Table 4.5 further show that the coefficient of internal equity is positive and statistically significant at 5% level. The finding signify that during the period of analysis, increasing the internal equity component within the equity structure led to an increase in the level of financial soundness among non-financial firms listed in Kenya.

On the basis of these results, the study therefore rejected hypothesis H_01: Internal equity has no significant effect on financial soundness of non-financial firms listed in Kenya at 5% significance level. The implication of the finding is that financing listed non-financial corporations using internally generated equity capital made them more financially sound. The finding was consistent with those by studies conducted by Forsaith and McMahon (2002), Elsas et al. (2004) and Cosh and Hughes (1994). The authors attributed this tendency to the fact that internal equity is less costly to acquire and maintain since no dividend obligations are involved. The result also corroborated the pecking order theory that found utilization of internal equity to be favorable to firms as it preserves firm value (Myers & Majluf, 1984). However, the result differed with the finding by Margaritis and Psillaki (2010)who found that the source of equity financing does not influence the financial soundness of firms whatsoever.

Table 4.5 shows a negative and significant relationship between external equity and financial soundness. The finding indicated that during the study period, increasing the external equity capital led to a significant decline in financial soundness of non-financial firms listed in Kenya. In the light of this result, the study rejected hypothesis H_02: External equity has no significant effect on financial soundness of non-financial firms listed in Kenya at 5% significance level. The finding was in support of the study findings by Park and Pincus (2001), Aivazian, Ge, and Qiu (2005) and Forsaith and McMahon (2002) all of whom attributed this tendency to the fact that utilization of external equity introduces information asymmetry costs to the firm in terms of profitability, dividend and share price fluctuations which limits productivity. Further, the authors found that external equity is associated with external financial obligations in terms of the required dividend payouts which effectively strains corporate liquidity situation. However, the study findings was at variance with the results of studies by Brown (2005), Richardson and Sloan (2003) and Sciascia and Mazzola (2008) who found utilization of external equity to be favorable on corporate financial soundness.

Concerning the association between controlling variables and financial soundness, the study results show that assets tangibility was negatively and significantly related to financial soundness at 5% level. The implication of the finding is that firms with higher proportion of total assets constituting fixed assets were financially unsound in comparison with firms that were less tangible. This could be attributed to the tendency by highly tangible firms to over-borrow on account of readily available collateral useful in securing borrowed capital. Further, the results showed a positive but insignificant relationship between sales growth and financial soundness of non-financial firms listed in NSE. The findings implied that the level of sales growth does not influence financial soundness of non-financial listed corporations during the analysis period. However, where it did, the effect was positive. The findings resonated with that by Baimwera and Muriuki (2014) whose study postulated a positive and statistically insignificant relationship between sales growth and financial distress levels of firms listed in Kenya.

5.0 Summary and Conclusion

The study found that internal equity as represented by the proportion of internally generated capital in the equity structure is positively and significantly related to financial soundness of non-financial firms. The study therefore concluded that increasing the internal equity component within the capital structure of non-financial firms listed in Kenya made them financially sound. Further, the study found the effect of external equity on financial soundness to be negative and significant. In the light of this finding, the study concluded that increasing the proportion of externally issued equity within the equity structure of non-financial firms significantly reduced their financial soundness. The study also found assets tangibility level to be negatively and significantly related to financial soundness of non-financial firms listed in Kenya. Finally, the study concluded that sales growth level has no effect on financial soundness of non-financial firms listed in Kenya.

5.1 Recommendations

Based on the empirical findings from the study, the researcher made a number of recommendations at both firm, and policy levels. Firstly, managers of non-financial firms should embrace utilization of internally generated equity capital. This mode of financing presents a cheaper and readily accessible source of capital that ultimately promotes financial soundness of the firms. The finance managers should utilize external equity sparingly as excessive use of this mode of financing invariably drove non-financial firms to financial distress. At policy level, government should ensure that a conducive economic environment is maintained for the firms to remain productive. This would enable firms to build more internal capital in form of retained earnings and reserves that fosters their levels of financial soundness.

This could be achieved by ensuring low levels of inflation and foreign exchange rates are maintained which translate to stable market interest rates. Secondly, the regulator of the capital markets (CMA) should maintain stringent measures to ensure that only in deserving cases are non-financial firms allowed to issue external equity. This could be done by raising the level of compliance threshold as well as conducting a thorough analysis of corporate financial performance prior to giving approval for equity issuance.

5.2 Suggestion for Further Research

This study was undertaken within the Kenyan context; that principally represent the emerging markets. A comparative analysis of the effect of equity structure on financial soundness among non-financial firms listed in other countries could be undertaken. Such a study could be conducted within the developed economies as well as within the tiger economies. Further, a similar study involving firms listed within financial sector such as banks and insurance firms could be undertaken.

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