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Moderating effect of bank size on nexus between internal equity capital and financial performance of lower tier commercial banks in Kenya

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ABSTRACT

The Kenyan banking sector is categorized into three tiers, tier I, II and III based on bank size. The profitability of tier II and III has been declining begging the question as to whether the size of the bank has any influence on the performance of the banks. This study determines the influence of internal equity capital on the financial performance of lower-tier commercial banks in Kenya. The study employed a descriptive and explanatory research design. The study population was 26 commercial banks in Tier II and III commercial banks in Kenya from 2016 to 2020. The average internal equity for lower-tier commercial banks in Kenya was .364 in 2016 and .400 in 2017. In 2018, the internal equity sharply rose to 8.299, which was followed by a small decline to 7.782 in 2019 signifying that in 2018 and 2019, lower-tier commercial banks in Kenya employed more internal equity financing to finance their operations. Through the hierarchical regression, it was established that internal equity has a positive and significant influence on the financial performance of lower-tier commercial banks in Kenya. Bank size does not moderate the effect of internal equity on the net profit margin of lower-tier commercial banks in Kenya (p = .202>0.05; R2 change of 0.07). The study recommends that lower-tier commercial banks need to encourage its shareholders to re-invest back their earnings rather than consuming them as dividends as internal equity is affordable and readily available when the bank is in urgent financial need.

Introduction

The banking sector is recognized as the most visible source of finance and key to modern trade and global economic growth (Vasilescu, 2014). Hawkins and Mihaljek (2001) posits that the institutions play a notable role in building both domestic and global economies by ensuring credit is available to finance businesses and households. Demirgüç-Kunt, Feyen, and Levine (2012) observe that the financial wellness of the banking sector in a country plays a critical role to the health of economies. As opined by Idiab, Haron, and Ahmad (2011), an efficient banking sector contributes positively to the economy by encouraging accumulation of capital as suppliers of credit. The banking sector rallies and assigns savings, supports sound trade activities, aids diversification and hedging of risk and makes credit available to the private sector which plays a pivotal role to economic growth.

The banking sector plays a vital role to economic growth and development. According to the Kenya Bankers Association (2019), the total value of outstanding loans and advances by the banking industry was KES 2.5 trillion at 31st Dec 2018. This represented 52 percent of the economy's Real Gross Domestic Product. Notably, the outstanding credit has grown ten times over from KES 264 billion in 2003. The profitability of commercial banks had been on a declining trend over the past decade representing a

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negative figure in 2017. The Kenya Bankers Association (2018) reports that the total income for the large banks, Tier I banks declined from 13.80 percent in 2014 to 13.68 percent in 2015. This improved to 14.11 percent in 2016 only to register the highest ever decline to stand at a negative figure (-0.66%) in 2017. The same would however increase yet again to 5.45 percent in 2018. For the second tier banks, an improvement was recorded between 2014 and 2015 as total incomes stood at 17.64 percent and 20.17 respectively. For the year 2016 the total income stood at 11.84 percent declining to losses of -11.02 percent in 2017 but improving later to a 1.14 percent in 2018.

For the third tier of banks, total income stood at 16.04 percent in 2014 and improved to 15.03 percent in 2015 (Cytton Investments, 2018). The incomes improved further in 2016 to stand at 4.91 percent. In the year 2017, the incomes deteriorated to stand at -9.90 percent loss. The incomes would improve in 2017 to stand at 11.04 percent. Therefore, it can be observed from the results that lower tier banks are grossly entangled in performance challenges. There has been mixed trends in the growth banking income, which has often registered a negative or declining trend. As such, this situation gives weight to the focus of this study. The focus on the banking sector and specifically the lower tier commercial banks validates the indispensable value of the study. The aggregative banking sector incomes grew from 14.84 recorded in 2014 to 15.42 percent in 2015 but declined to 12.54 percent in 2016. The aggregative incomes further deteriorated in 2017 where the banking sector made an aggregate loss of -4.79 percent. This would later improve to 3.30 percent in 2018 (Kenya Bankers Association, 2018). This gives a highlight that the banking sector financial performance challenges needs to be addressed given its relative significance in the economy.

The Central Bank of Kenya applies the Tier System of Classification that classifies commercial banks into three tiers, Tier I, Tier II and Tier III (CBK, 2020). Commercial banks in Tier 1 are large banks with hundreds of billions in cumulative assets and millions of depositors. Tier one is made up of six giant banks that control close to half (49.9 percent) of the market. The second tier banks comprise of medium-sized lenders and control 41.7% of the market share. The third and last tier comprises of small banks and controls 8.4% of the market. The ability to fund bank operations will influence bank performance. Capital structure represents the specific mix of debt and equity utilized by a firm in financing their investments and operations. One of the method to fund banks operations is through internal equity.

Internal equity represents a firm's financing by use of own funds in form of retained earnings and reserves. In distinction, external equity finance involves use of share capital financing by way of issuing new shares (ordinary shares) and intra-firm borrowing arrangements (Brigham et al., 2016). Proponents of equity financing cite freedom from debt obligations and increase in business experience and contacts as diverse shareholders jointly own the firm. Equity capital represents funds paid into the enterprise by investors in return for common or preferred stock. It epitomizes the core funding of most business, to which debt funding may be added.

The commercial banks in Kenya have been recording declining performance over the recent past with the lower tier banks being the hardest hit (Maingi, 2019). As a result, several banks in the lower tier such as Chase Bank, Dubai Bank of Kenya and Imperial Bank have been put under receivership. Collapse of banks does not give a good reflection of the sustainability of the banking system. Thus, the signals of poor financial performance need to be addressed promptly as collapse of the banking system could also have a ripple effect on other sectors.

As Onuonga (2014) reveals, between the financial years 2008-2013, the growth in Profits before Tax (PBT) of commercial banks was less than 20 percent on average terms which also signified a declining trend. For financial year 2012/2013 for example, the PBT of the Kenyan commercial banks increased by 16.6 percent. This was a decline from the previous financial year 2011/2012's record of 20.60 percent. Similarly, the PBT for year 2008/2009 increased by 12.90 percent. This represented a decline from the previous year record of 13.40 percent PBT in 2007/2008. Further, Maingi (2019) observes that the banking sector valuations had gone down significantly over the last four years. This effect was more on lower tier banks as compared to tier I banks.

Consumption of equity financing has a range of merits as it is useful for expansion and diversification and provides an economical source of finance (Davie & Puca, 2020). Further, equity financing presents no fixed obligation and further provides a flexible funding source. Proponents have also indicated that equity financing, whether short term or long term may increase the shareholders' value and avoid excessive tax: Retained earnings provide opportunities for evasion of excessive tax and improve the earning capacity: Retained earnings consist of least cost of capital and also it is most suitable to those companies which go for diversification and expansion (Ardalan, 2017).

This paper sought to determine the moderating effect of bank size on the nexus between internal equity capital on financial performance of lower tier commercial banks in Kenya.

Literature Review

This study reviews theoretical underpinning of the study and empirical study relating to area of study.

Theoretical Literature

The Pecking Order Theory was proposed by Donaldson (1961) and is founded on the argument that firms prefer internal sources as they are more productive than external sources of finance. The pecking order model advances that the argument that a firm should prefer internal equity (retained earnings) as this would have the largest impact on profitability. Only upon exhausting the retained earnings should the firm resort to debt, with a preference to short term debt and then long term debt. External equity (share capital financing) should be avoided and used only as a last resort.

Myers and Majluf (1984) modifies the Pecking order theory by making further significant improvements by enriching the arguments with the information asymmetry view to the pecking order hypothesis. The improved version dictates that the cost of financing upsurges with asymmetric information. The pecking order hypothesis could also act as a signal to the performance condition of the firm. Firms that use internal finance are deemed strong (Jiang et al., 2019). Additionally, firms that use debt show management confidence on the ability of the firm to meet her obligations and still deliver returns to the firm. However, when a firm issues new equity, this send a negative signal that the management wants to distribute the risk of the investment across a wide base of investors as they might be unsure of the company's future (Nagakura, 2020).

According to Shahar et al., (2015), the advantage of using internal financing through retained earnings is that it attracts no floatation costs. In addition, internal sources of finance need no additional disclosure of financial information that could expose the firm's competitive advantage. The theorists provides a scale or guide that can be used to consume external funds starting with short term debt, long term debt, convertible securities, preferred stock, and lastly common stock (Watson & Head, 2010).

Jarallah et al. (2019) tests the traditional trade-off model against the pecking order model of capital structure. The test was based on secondary data from companies listed on the Tokyo Stock Exchange in Japan. A total of 1,362 firms were analyzed. The study considered data from 1991 to 2015. Empirical evidence established that the financing pattern of Japanese firms was inconsistent with the tradeoff suggestions. The financing pattern was leaning more towards the basic pecking order model where internal equity is more preferred. Guizani (2020), while testing the application of pecking order theory finds no evidence to support the preference of internal financing sources over other external sources. The study was based on an analysis of firms operating under Islamic principles. The study was based on a sample of 66 Islamic firms listed on Kingdom of Saudi Arabia stock market between the year 2006 and 2016. The firms were found to prefer sale-based instruments and only resort to equity financing as a last resort, often during crisis. The study conflicts the foundational argument presented by Pecking order theorists who indicate that internal sources are more preferred over external ones.

Frank and Goyal (2003) tests the pecking order theory of corporate leverage on a broad cross-section of publicly traded American firms for the period between 1971 to 1998. The study also finds no significant empirical evidence to support the propositions of pecking order theorists on internal sources superiority over external sources. The theory is significant to this study as it suggests that firms consuming less debt will be more profitable than firms with a big debt appetite. As such, the theorists opine that use of internal equity would deliver more profit to the firm than debt would.

Empirical Review

Focusing on the study period between 2010 and 2014, King'oo (2015) studied the effect of selected internal factors on the financial performance of commercial banks listed in the Nairobi Securities Exchange. Financial performance was indicated through the return on assets (ROA) ratio. Analysis was done through Pearson correlation analysis and multiple regression analysis. Results established that internal and external equity have a significant positive effect on financial performance. The size of the bank was also seen to be a positive determinant of financial performance. Conceptual gaps are established in that only a handful of studies have attempted a wholesome appraisal of all capital structure items, debt included. Methodologically, further gaps are clear in that studies have rarely considered analyzing, as the main theme, the moderating effect of bank size on capital structure-financial performance relationship. These two are the foundational gaps upon which the study was constructed.

Employing secondary data collected covered a ten-year period between 2005 and 2014, Samuel (2016) studied the effects of capital structure on financial performance of commercial banks in Kenya. Specifically, the study sought to determine the effect of debt, internal equity, external equity and preference share capital on financial performance of commercial banks in Kenya. Financial performance was indicated by the earnings before interest and tax. The study targeted the 43 commercial banks licensed by the Central Bank of Kenya. Internal equity represented by retained earnings also showed positive effect on financial performance. The study presents contextual gaps on need to have an up to date analysis. This study considers up to date data to address the study gap.

Equity capital represents the shareholders' interest in the firm's assets after liabilities are deducted and can take the form of common stock (share capital), preferred stock, share premium, revenues reserves, capital surplus, retained earnings and reserves in financial statements. Adopting panel research design, Muigai (2016) studied equity structure effect on financial soundness of non-financial companies listed in Kenya. A census of all the forty non-financial listed firms were studied. Secondary data was relied upon to and was extracted from firm's published financial statements. The study covered the time between 2004 and 2013 which translated to ten years. The findings indicated that there exists a positive and significant effect of internal equity on firm's financial soundness. Conversely, results showed that external equity has a significant negative effect on financial soundness. The study presents empirical gaps in that results contradict earlier findings by Thuranira (2014) who indicated that internal equity has no significant impact on profitability. Gaps were addressed by conducting an empirical study anchored on diverse theoretical and empirical perspectives to guide worthy conclusions.

Thuranira (2014) studied the influence of retained earnings as a component of internal equity on the returns of NSE listed firms. A descriptive survey design was adopted. The study period was between 2009 and 2013. Results showed that retained earnings is a weak and insignificant determinant of stock returns and profitability. The study recommended that organizations ought to retain their earnings only if they have projects that have a positive net present value. Conceptually, the study presents gaps as it considered a narrow dimension of equity that excluded other key components such as external equity. This study assesses all key dimensions of capital structure including external equity and various debt elements. Similarly, Maswadeh (2016) studied financing structures and firm profitability and dividend payout of public industrial companies in Jordan from 2008 to 201 and indicated that internal equity (retained earnings) have a positive and significant effect on profitability. Contextually, gaps exist as most studies on the subject matter are foreign in orientation with scarce empirical evidence locally. This study is oriented to local banking industry, a factor that addressed the aforementioned gap.

Qamar, Farrok and Akhtar (2016) studied the moderating role of firm size on the leverage-profitability relationship in Pakistan. A total of 304 Pakistanian non-financial firms were targeted with the study period being between 2005 and 2013. Results showed that while the relationship between leverage and profitability is negative for all firms, the losses are more prominent for small sized firms. Further, findings indicated that the link between leverage and performance relation is nonlinear for medium and large size firms. The study concludes that while small firms should avoid debt all together, medium and large firms should seek to arrive at an optimal debt to equity mix to optimize their profits. The study presents arguments that would interest the current analysis in suggesting that small firms should avoid borrowing altogether while medium and large firms should go for an optimal mix of finance. This study is particularly targeting lower tier banks which makes the distinction presented quite useful.

It is hypothesized that internal equity measured through Retained Earnings to Total Assets does not significantly affect financial performance. Internal Equity represents financing of the firm though internal / own sources from retained earnings and reserves (Pandey, 2009). Retained earnings consist of least cost of capital and also it is most suitable to those companies which go for diversification and expansion (Ardalan, 2017). Reserves are into two categories that is revenue and capital reserves. Revenue reserves are obtained from operations of an organization and are divided into general and specific reserves. An organization set aside specific reserves to meet a certain objective while general reserves are not allocated to any purpose. Capital reserves are obtained from capital profits, which are from other activities of a business. It is also hypothesized that bank size moderates the nexus between External Equity Capital and Financial Performance of Lower Tier Commercial Banks in Kenya. Bank size represents how large or small the firms are in terms of the capital base, market share and customer deposits. Large firms often have a stronger asset base and are able to keep expanding their investments as they have necessary collateral for lending.

Conceptual Framework

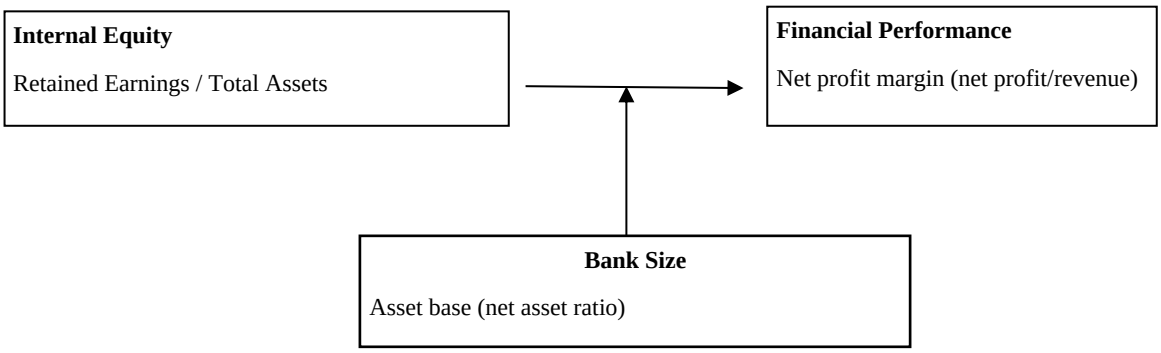

Figure 1: Conceptual Framework

Methodology

The study adopted pragmatism as the guiding research philosophy. The pragmatism approach seeks to provide a bridge between objectivist and subjectivist considerations. It further strikes a balance between facts and values and considers different contexts. A combination of a descriptive and explanatory research design was adopted in the study. A descriptive survey research design seeks to establish the what, when, how and how many of a research phenomenon (Bulmberg, Cooper, & Schindler, 2011). This justifies the use of explanatory research design to compliment the descriptive approach. As explained by Ott and Longnecker (2015), an explanatory research design effectively explains the reason why a problem occurs as well as the cause and effect relationships among the variables.

The study population was 37 commercial banks in Tier II and III of the Central Bank's Lower Tier classification. However, after data cleaning, 26 banks were retained for further analysis. Secondary data were adapted in the study for five-year period 2016 to 2020. Data collected was analysed by use of both descriptive and inferential analysis. Descriptive statistics included the means, standard deviations, skewness and Kurtosis. The inferential analysis entailed the hierarchical regression. Of essence was the P-values which was used to determine the significance of the independent variables in explaining the dependent variable. The 5% level of significance was applied in the tests. For analytical purposes, the study was guided by two empirical model (s); the general model and the moderation model. The model illustrates the single effect of internal equity on financial performance of commercial banks in Kenya.

$Y_{it} = \beta_0 + \beta_1 X_{1it} + Ɛ$
β_0 = Intercept
X_1 = Internal Equity
β_1 = Regression Coefficient
$Ɛ$ = error term.

To test the moderating effect of bank size on the nexus between external equity on financial performance of commercial banks in Kenya, the following hierarchical regression equation was employed;
$Y= \beta_0 + \beta_1 T_1 + Ɛ$
$Y= \beta_0 + \beta_1 T_1 + \beta_1 BG_2 + Ɛ$
$Y= \beta_0 + \beta_1 T_1 + \beta_1 BG_2 + \beta X_3 + Ɛ$
$Y= \beta_0 + \beta_1 T_1 + \beta_1 BG_2 + \beta X_3 + \beta BS_4 + Ɛ$
Where Y is financial performance of commercial banks in Kenya, T is time, BG is bank category and BS is bank size.

Results and Discussion

This section gives the results of the study and discusses the results.

Financial performance of lower tier commercial banks in Kenya

The performance of the banks was assessed for five years from 2016 to 2020. It was important to analyse the performance of the lower tier commercial banks to depict any trend of whether the performance has been rising, declining, remaining constant or just fluctuating. The analysis of the financial performance of a financial institution like a bank is critical in comprehending the financial health of the bank, understand their capability to remain operational and generate revenue for the bank's shareholders and members. The results in table 1 shows the descriptive results for net profit margin.

Table 1: Net Profit Margin Descriptive Results

Net Profit Margin	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
2016	26	14.216	27.694	(1.107)	0.456	4.261	0.887
2017	26	16.891	28.271	0.662	0.456	0.394	0.887
2018	26	16.270	23.832	(0.188)	0.456	0.228	0.887
2019	26	12.947	54.735	(2.175)	0.456	10.839	0.887
2020	26	13.961	29.072	(1.728)	0.456	6.342	0.887

The descriptive results in table 1 showed that the net profit margin for lower tier commercial banks in 2016 was 14.22%. The net profit margin of the lower tier commercial banks rose to 16.89% in 2017. However, the was a slight decline to 16.27% of net profit margin in the year 2017. Further decline in the net profit margin of the lower tier commercial banks followed in the year 2019 (12.94%). In 2020, a slight increase to 13.96% in the net profit margin was recorded among the lower tier commercial banks. Profit margin was measured by mean with small standard deviation showing less disparity in the overall rating. This is confirmed by the platykurtic distribution whose value is less than three while the negative skewness show the rating was higher on the scale.

The net profit margin is an important profitability ratio in comparing banks' profits to the total amount of revenue generated. The net profit margin also depicts the efficiency in which a bank is operating. Though a good net profit margin varies from firm to firm, 5% net profit margin is low, 10-19% net profit margin is considered average while 20% net profit margin is considered good. According to Handayani and Winarningsih (2020) studying the effect of net profit margin and return on equity toward profit growth, the higher the value of net profit margin, the higher the company's ability to generate net income from sales, which shows that the company is more effective and efficient. Similarly, Jayathilaka (2020) indicated that operating profit and net profit above 20% is considered good for efficient operational sustainability of a firm. Based on the descriptive results above, the average net profit of 14.856% for all the lower tier commercial banks is considered average compared to tier 1 banks in Kenya, that have been recording net profit margin of over 20% during the same study period. The results thus imply that lower tier commercial banks in Kenya have been reaping average net profit margins.

Internal equity capital descriptive results

The study presented the descriptive results for internal equity capital operationalised as Profit Retention Ratio (PRR) for lower tier commercial banks in Kenya. Internal equity, primarily in the form of owner contributions and net worth, for use in sustaining operations of the firm. The characteristics of small firms play an important role in their ability to raise internal equity capital of the firm. The internal equity capital descriptive results are shown in Table 2.

Table 2: Internal Equity Descriptive results

Internal Equity capital	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
2016	27	-.104	.977	.364	.363	.595	.448	-1.306	.872
2017	27	-25.257	.986	.400	4.954	-5.141	.448	26.604	.872
2018	27	-1.377	213.427	8.299	40.999	5.195	.448	26.990	.872
2019	27	-2.153	176.101	7.782	33.750	5.142	.448	26.602	.872
2020	27	-3.081	9.129	1.392	2.742	1.889	.448	3.505	.872

The standard deviations for internal equity during the study period was showing low disparity from the mean an indication that most lower tier commercial banks internal equity were clustered around the mean. The year 2018 recorded highest Kurtosis of 26.990>3 followed by 2017 (26.604>3) and 2019 (26.602>3) indicating high disparity in external equity capital among the lower tier commercial banks. In 2016, the Kurtosis was -1.306<3 while in 2020, the Kurtosis was 2.905<3 an indication of lower disparity in internal equity among the lower tier commercial banks (platykurtic distribution). In terms of Skewness, the values ranged between -5.141and 5.195 an indication that the data are highly skewed. The average internal equity for lower tier commercial banks in Kenya was .364 in 2016. There was a slight increase in the internal equity in 2017 to .400 a phenomenon that has been linked to effects of general election that were occurring during that period in Kenya. Thus, in 2017, commercial banks used more of internal equity to finance operations. Further, in 2018, the internal equity sharply rose to 8.299, among the lower tier commercial banks which was followed by small decline to 7.782 in 2019. The results thus signify that in 2018 and 2019, lower tier commercial banks in Kenya employed more of internal equity financing to finance their operations. In 2020, the use of internal equity fell to 1.392. Similarly, in 2017, one lower tier commercial bank recorded highest internal equity of -25.257 indicating very low reliance on internal equity to finance its operations.

Relationship between internal equity capital and financial performance of lower tier commercial banks in Kenya

The study first undertook diagnostic tests to determine whether data was fit for further analysis. Some the tests done were autocorrelation and normality test.

Autocorrelation

Since the data involves both cross section and time-series, it raises the suspicion of the existence of serial correlation. Serial correlation is a common problem experienced in panel data analysis and must be accounted for in order to achieve the correct model specification. Failure to identify and account for serial correlation in the idiosyncratic error term in a panel model would result into biased standard errors and inefficient parameter estimates. Autocorrelation was tested by use of Durbin-Watson. The autocorrelation results are shown in table 3.

Table 3: Autocorrelation results

Profitability of lower tier commercial banks
Durbin-Watson d-statistic (1, 126) =2.096
Prob > F = .661

The hypotheses tested while undertaking the autocorrelation were that;

H_0: There is no serial correlation in the data.

H_1: There is serial correlation in the data

When Serial Correlation was conducted, the test statistic reported F-test of 2.096. When measuring serial correlation by use of Durbin Watson test, the Durbin-Watson d-statistic should be between 0-4. A value of 0-2 indicates positive autocorrelation while value of 2 to 4 implies negative autocorrelation. The d-statistic of 2.096 implies that data did not seriously suffer from serial autocorrelation.

Normality test

The normality test of the data was conducted using PP plot. The null hypotheses were that

H_0: The data are not normally distributed

H_1: The data are not normally distributed

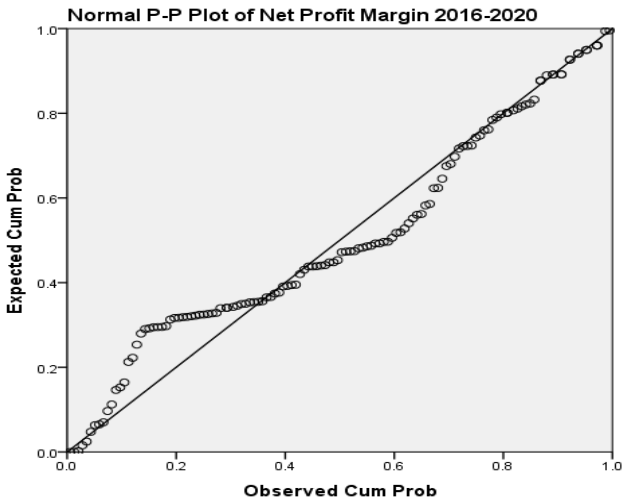

Figure 2: Normality test pp plot

Based on the pp-plot in Figure 2, the data was exhibiting normal distribution. It was thus concluded that the data is normally distributed.

The data thus can be considered not to be violating the normality assumption and is appropriate for linear regression. Since the study involved use of panel data, the study thus tested for fixed effects. The results are indicated in the table 4.

Table 4: Type III Tests of Fixed Effects[a] (Profit Verse time, bank Category and PR)

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	4.892371	6.816854	121.000	.718	.474	-8.603389	18.388132
[BankG=1.00]	-13.300337	5.649323	121.000	-2.354	.020	-24.484662	-2.116013
[BankG=2.00]	-22.308130	5.603543	121.000	-3.981	.000	-33.401820	-11.214439
[BankG=3.00]	-18.164691	5.442781	121.000	-3.337	.001	-28.940112	-7.389270
[BankG=4.00]	0[b]	0	.	.	.	.	.
[Time=1]	4.823900	5.552028	121.000	.869	.387	-6.167803	15.815603
[Time=2]	5.727738	5.534135	121.000	1.035	.303	-5.228541	16.684017
[Time=3]	4.167213	5.528118	121.000	.754	.452	-6.777155	15.111582
[Time=4]	.767291	5.526541	121.000	.139	.890	-10.173955	11.708536
[Time=5]	0[b]	0	.	.	.	.	.
PRR	.441689	.054469	121.000	8.109	.000	.333854	.549524

a. Dependent Variable: Net Profit Margin 2016-2020, b. This parameter is set to zero because it is redundant.

Based on the effects results bank category had significant influence on net profit margin of lower tier banks in Kenya. Time factor did not influence the profit margin of lower tier banks in Kenya. It was also established that internal equity/profit retention ration had significance influence on the profit margin of lower tier banks in Kenya. Internal equity refers to earnings that are retained by the bank for use in financing any other investments projects when they arise. Retained earnings are considered as a better and cheaper source of finance than raising funds from external sources, which are associated with exorbitant costs. Banks may prefer capital gains over dividends, because capital gain taxes can be deferred into the future and are taxed at a minimum rate while taxes on dividends must be paid as soon as they are received and are taxed at a relatively higher rate.

Hierarchical Multiple Linear

Hierarchical Multiple Linear was employed to determine the influence of External Equity on performance of the banks. A hierarchical linear regression is a special form of a multiple linear regression analysis in which more variables are added to the model in separate steps. Hierarchical multiple linear was conducted targeting time, bank Category, profit retention ration. Bank profit was regressed against time, bank Category, profit retention ration to check if they influence the profit margins of the lower tier commercial banks in Kenya. The results are shown in Table 5.

Table: 5: Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	**F Change**	**df1**	**df2**	**Sig. F Change**	
1	.006[a]	.000	-.008	27.56061647	.000	.005	1	128	.946	
2	.438[b]	.192	.179	24.87613047	.192	30.117	1	127	.000	
3	.668[c]	.446	.433	20.66918133	.255	57.960	1	126	.000	.930

a. Predictors: (Constant), Time b. Predictors: (Constant), Time, Bank Category c. Predictors: (Constant), Time, Bank Category, Profit Retention Ratio 2016-2020 d. Dependent Variable: Net Profit Margin 2016-2020

Time did not have any statistical significance on the net profit margin of lower tier commercial banks. Bank Category and profit retention ration had significant influence on net profit margin. The Durbin-Watson was .930 implying that data did not suffer from autocorrelation. The reported R Square Change .255 shows that internal equity explained a significant portion (25.5%) of net profit margins of lower tier bans in Kenya as measured in net profit margins. The reported p-value is .000<0.05 an indication that internal equity has a statistical significance on the financial performance of lower tier banks in Kenya using net profit margin.

Bank profitability and earnings are closely related because retained earnings are undistributed profits accumulated over the years which may be subsequently used for the purpose of enhancing the capital resources of the bank. Without adequate earnings the confidence in the banking system by the public that they should have access to their funds whenever they need them is eroded. The results are in line with Muigai (2016) who studied equity structure effect on financial soundness of non-financial companies listed in Kenya and indicated that there exists a positive and significant effect of internal equity on firm's financial performance. However, the results contradict the findings by Thuranira (2014) who indicated that internal equity has no significant impact on profitability. Table 6 shows the ANOVA result for profit against time, bank category and internal equity.

Table 6: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.475	1	3.475	.005	.946[b]
	Residual	97227.210	128	759.588		
	Total	97230.685	129			
2	Regression	18640.308	2	9320.154	15.061	.000[c]
	Residual	78590.377	127	618.822		
	Total	97230.685	129			
3	Regression	43401.588	3	14467.196	33.864	.000[d]
	Residual	53829.097	126	427.215		
	Total	97230.685	129			

a. Dependent Variable: Net Profit Margin 2016-2020 b. Predictors: (Constant), Time c. Predictors: (Constant), Time, Bank Category, d. Predictors: (Constant), Time, Bank CategoryGroup, Profit Retention Ratio 2016-2020

The ANOVA results in model 2 shows a F value of 15.061and p-value of .000<0.05. The calculated p-value of .000<0.05 is an indication that bank Category is a significant predictor of net profit margin among the lower tier commercial banks in Kenya. Likewise, model 3 showed a F value of 33.864 and p-value of .000<0.05. The results confirm internal equity/ profit retention ration has significant influence on profit margin of lower tier commercial banks. Table 7 shows the coefficient model results between time, bank Category, internal equity and net profit margin of lower tier commercial banks in Kenya.

Table 7: Coefficients[a]

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**Correlations**			**Collinearity Statistics**	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	15.863	5.669		2.798	.006					
	Time	-.116	1.709	-.006	-.068	.946	-.006	-.006	-.006	1.000	1.000
2	(Constant)	-8.211	6.740		-1.218	.225					
	Time	-.116	1.543	-.006	-.075	.940	-.006	-.007	-.006	1.000	1.000
	Bank Category	10.609	1.933	.438	5.488	.000	.438	.438	.438	1.000	1.000
3	(Constant)	-8.971	5.601		-1.602	.112					
	Time	-1.421	1.293	-.073	-1.099	.274	-.006	-.097	-.073	.982	1.018
	Bank Category	3.490	1.859	.144	1.878	.063	.438	.165	.124	.747	1.339
	Profit Retention Ratio 2016-2020	.429	.056	.588	7.613	.000	.651	.561	.505	.737	1.357

a. Dependent Variable: Net Profit Margin 2016-2020

Model coefficients result show that internal equity/profit retention ratio has positive and statistically significant effect on net profit margin of lower tier banks in Kenya (β=.429, p-value=.000<0.05). the results indicate that one unit change in internal equity result to .429 units change on the net profit margins of lower tier commercial banks in Kenya. Earnings retained are the most important sources of financing growth of a bank. The level of internal funds conveys information about growth prospects of companies. Growth firms pay lower dividends, reinvest more of their earnings, and provide a greater percentage of their total returns in the form of capital gains. Earnings retained are the most important sources of financing growth of a bank. The level of internal funds conveys information about growth prospects of companies. Growth firms pay lower dividends, reinvest more of their earnings, and provide a greater percentage of their total returns in the form of capital gains. Bank profitability and earnings are closely related because retained earnings are undistributed profits accumulated over the years which may be subsequently used for the purpose of enhancing the capital resources of the bank. As internal source, retained earnings are readily available for use. Also, retentions are cheaper than external equity, do not cause ownership dilution, and have got a positive connotation as the stakeholders perceive that the company has potential investment opportunities. Retained earnings are considered as a better and cheaper source of finance than raising funds from external sources, which are associated with exorbitant costs. Without adequate earnings the confidence in the banking system by the public that they should have access to their funds whenever they need them is eroded. However, they have demerits in that retained earnings is a limited source of financing, and the fact that they have a high opportunity cost since they are a foregone dividend by equity holders. The results are in line with Muigai (2016) who studied equity structure effect on financial soundness of non-financial companies listed in Kenya and indicated that there exists a positive and significant effect of internal equity on firm's financial performance. Similarly, the results marry with that of King'oo (2015) who studied the effect of selected internal factors on the financial performance of commercial banks listed in the Nairobi Securities Exchange and established that internal and external equity have a significant positive effect on financial performance. However, the results contradict the findings by Thuranira (2014) who indicated that internal equity has no significant impact on profitability. The results also differ with Altahtamouni, et al. (2022)

who indicated that retained earnings have no significant impact on the profitability of Saudi banks. To test whether bank size moderating the nexus between internal equity capital on financial performance of lower tier commercial banks in Kenya, the results are as indicated in table 8.

Table 8: Model Summary[e] (time, bank, internal equity and bank size)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	**F Change**	**df1**	**df2**	**Sig. F Change**	
1	.006[a]	.000	-.008	27.56061647	.000	.005	1	128	.946	
2	.438[b]	.192	.179	24.87613047	.192	30.117	1	127	.000	
3	.668[c]	.446	.433	20.66918133	.255	57.960	1	126	.000	
4	.673[d]	.454	.436	20.61650703	.007	1.645	1	125	.202	.936

a. Predictors: (Constant), Time, b. Predictors: (Constant), Time, Bank Category, c. Predictors: (Constant), Time, Bank Category, Profit Retention Ratio 2016-2020, d. Predictors: (Constant), Time, Bank Category, Profit Retention Ratio 2016-2020, Bank size, e. Dependent Variable: Net Profit Margin 2016-2020

The results from Table 8 indicates that, with introduction of size, a R square change of .255 indicates that internal equity explained a 25.5% of net profit margin of lower tier bans in Kenya. It was also established that internal equity is significant predictor of net profit margins in the banks. Upon the introduction of bank size as the moderator, the square Change .007 was reported. The reported R Square Change 0.007 shows that bank size did not statistically influence the relationship between internal equity and the financial performance of lower tier banks in Kenya. The results imply that size of bank in terms of total assets controlled does not affect the level of internal equity financing and subsequent profitability of lower tier commercial banks. The profitability retention ratio only depends on the agreement among the shareholders and the bank on the manner or formula to be used in calculating retained earnings and thus bank size will not affect this relationship. A small bank or large bank can choose to increase the level of retained earnings irrespective of the size. Thus, bank size has no significant effect on the relationship between internal equity and profitability of lower tier banks in Kenya.

Conclusion

Internal equity capital has a significant positive effect on the financial performance lower tier commercial banks in Kenya. The study thus concludes that internal equity capital is an essential form of financing bank operations by mobilizing internal resources through retained earnings to fund bank's operations when need be. Internal equity financing occurs where banks retain and reinvest their own earnings to finance continuing expansion and growth. Internal equity financing is particularly beneficial to the banks, where the external form of financing banks operations is generally not developed and quick form of financing is required. In addition, internal equity financing is often considered cheaper than external debt financing. With such internal equity financing sources, lower tier commercial banks do not have to worry about finding external debt financing sources to fund their expansion and growth. The external financing opportunities might be limited due to deficiency in credit availability, and the costs of debts are high. The study recommends that lower tier commercial banks need to encourage its shareholders to re-invest back their earnings rather than consuming them as dividends. The use of internal equity capital in form of retained earnings to finance bank's operations is highly recommended when sourcing external funding is expensive. Internal equity capital is viewed as readily accessible source of financing in the event a bank urgently requires funding that to invest into certain projects and external equity funding would hurriedly service. Notably, retained earnings are a sacrifice made by equity shareholders. As an internal source, retained earnings are readily available for use. Also, retentions are cheaper than external equity, do not cause ownership dilution, and have got a positive connotation as the stakeholders perceive that the firm has potential investment opportunities. Since, only few firm financing options are available, firms prefer to retain more earnings and plow it back into operations especially when they have viable investment opportunities.

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