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IMPACT OF CAPITAL ADEQUACY ON THE FINANCIAL PERFORMANCE OF COMPANIES LISTED ON THE NAIROBI SECURITIES EXCHANGE IN KENYA

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Abstract

The study aims at investigating the impact of capital adequacy on the financial performance of the companies listed on the Nairobi Securities Exchange in Kenya. This study is a progression to an earlier published paper on the effect of corporate income tax on financial performance of companies listed on the NSE. The objective of this study was to establish the impact of capital adequacy on the financial performance of the companies listed on the Nairobi Securities Exchange in Kenya. This study will be instrumental to the Government of Kenya as the results will provide policy makers with useful input for formulating Government policies to avert poor performance and consequently bankruptcy of listed companies. This study will also be important to the institution regulatory bodies such as the Central Bank, the Capital Markets Authority, Insurance Regulatory Authority and Retirement Benefits Authority since it will help put in place policies to safeguard investors' interests. The key finding is that capital adequacy contributes positively to the companies listed on the NSE in Kenya and therefore it is paramount for companies to have a sound capital base in order to remain competitive and maintain the confidence of its customers. It is necessary to ensure that firms have sufficient capital. Capital regulations are therefore put in place to ensure that banks meet the minimum capital requirements expected of them.

Keywords: Capital Adequacy, Capital structure, Financial Leverage, Financial Performance

INTRODUCTION

The adequacy of capital is judged on the basis of capital adequacy ratio (CAR). Capital adequacy ratio shows the internal strength of the bank to withstand losses during crisis. Capital adequacy ratio is directly proportional to the resilience of the bank to crisis situations. It has also a direct effect on the profitability of banks by determining its expansion to risky but profitable ventures or areas (Sangmi & Nazir, 2010). Capital adequacy for commercial banks is measured by different variables including the log of total assets (LTA), Loan Loss provisions to total loans, loans to assets, tax to operating profit before tax, overhead expenses to total assets, non-interest income to total assets, total revenue to number of employees and shareholders equity to total assets. All these measures aim to measure capital adequacy of commercial banks from different perspectives. The

idea behind the measures is to determine the level of capital held compared to equity and other balance sheet activities. For instance, capitalization which is regarded as the principal measure of capital adequacy, is a measure ratio of shareholder's equity to total assets. The lower the capitalization or capital ratio is the risky the banking institution is and vice versa.

Andrews (2003) stated that bank equity capital protects depositors, creditors and investors against expected losses that should be borne by them. It is worth mentioning that the size of a bank's equity capital and its capital adequacy (i.e., the proportion of the bank's capital relative to its risk) are considered by RAs to be the most important factors in the analysis of bank creditworthiness. Rawcliffe and Andrews (2003) pointed out that bigger banks (in terms of absolute size of equity) are more likely to be significant to their domestic economies as the probability of receiving external support exists strongly, if needed, and thus decreases the risk that the bank will default. Many studies in the literature have stated that high capital strength ratios result in better bank ratings (Laruccia and Revoltella, 2000) This implies that well capitalized banks tend to acquire higher bank financial strength ratings issued by capital intelligence.

Cash-flow growth shows the rate of increase in a company's cash flow per share, based on several time periods. Measures of financial performance include return on sales which reveals how much a company earns in relation to its sales, return on assets determines an organization's ability to make use of its assets and return on equity reveals what return investors take for their investments. Asset turnover refers to the ratio of sales to average total assets of the firm.

It measures the organizations' efficiency in deploying and utilizing its assets to generate sales revenue. Sales revenue has an effect on financial performance and since asset turnover is related sales, it can therefore be concluded that asset turnover also has an impact on the eventual financial performance of the organization. Profitability of the firm is net income to average assets. Holding margins and other operating expenses constant, it can be predicted that the higher the asset turnover, the higher the profitability of the firm (Mwirie, 2015). A study by Ongore, (2013) on determinants of banks financial performance concluded that quality of assets has a significant influence on performance. Total assets can have a positive effect on financial performance because larger firms can use this advantage to get some financial benefits in business relations. The advantages of financial measures are the easiness of calculation and that definitions are agreed worldwide.

According to Cornett et al., (2006), analyzing financial statement using ratio analysis is one way of identifying weaknesses and problem areas of firms as well as evaluating financial performance. Brigham and Ehrhardt (2010), commenting on analysis of financial statements, observe that financial statement analysis involves comparing the firms performance with that of other firms in the same industry and evaluating trends in the firm's financial position overtime. They note that financial ratios provide a useful tool to evaluate financial statements and single out return on equity (ROE) as the most important accounting ratio.

Other common multivariate tools used to establish relationship between performance and firms or environmental variables include descriptive statistics (includes tables of means, t-tests, tests of proportions, chi-square), correlation, analysis of variance and other multivariate methods (discriminates, cluster and factor analysis, canonical correlation). Performance measures play a critical role not only in evaluating the current performance of a firm but also in achieving high performance and growth in the future (Khalifa et

al., 2013). Performance measurement provides useful information related to flow of fund, the use of fund, effectiveness, and efficiency. Besides, the information can also motivate the managers to make the best decision (Yassin & Ahmed 2012). The goal of management should be to maximize the market value of the company's shareholder equity through investments in an environment where outcomes are uncertain (Okelo, 2015). Additionally, Uzel (2015) argues that for an organization to be successful it has to record high returns and identify performance drivers from the top to the bottom of the organization. As competition intensifies due to changes in the industry structure and the emergence of new technologies, organizations are determined to reduce their operational costs while enhancing their profitability (Kiaritha, 2015).

Research Objectives

To establish the impact of capital adequacy on the financial performance of the companies listed on the Nairobi Securities Exchange in Kenya.

Research Questions

Does capital adequacy affect financial performance of companies listed on the Nairobi Securities Exchange in Kenya?

Null Hypotheses

H_{01}: Capital adequacy does not significantly effect on the relationship between capital structure and financial performance of Companies listed on the NSE in Kenya.

Conceptual Framework

Based on the study's objective, a conceptual framework was developed based on the independent variable and dependent variable. The independent variable has four constructs as shown in figure 1;

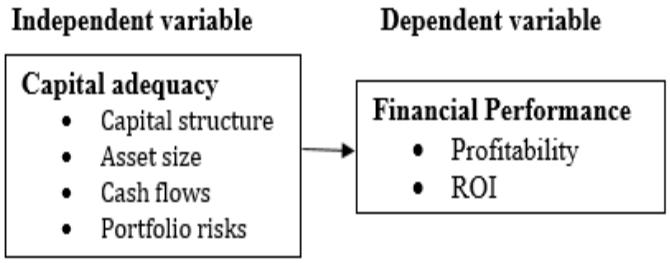

Figure 1 Conceptual Framework

RELATED LITERATURE

Organizational Portfolio Theory

Organizational portfolio theory postulates that instances of poor firm performance often lead to executive directors on the board being replaced by more independent non-executive directors. Such changes typically decrease the amount of trust and discretion granted to executives, based upon the assumption that the decline in profitability is a result of their poor management of the firm (Westphal, 1997). In turn, organizational portfolio theory also predicts that an increase in organizational profitability enhances the perceived integrity and competence of managers (Mayer, Davis and Schoorman, 1995), thereby precipitating boards in which managers are increasingly represented. The way in which portfolio factors interact to determine changes in firm performance and thus board composition, will now be discussed. Organizational portfolio theory identifies factors that are likely to prevent the sub-satisfying instances of performance and so forestall calls for a tougher and more independent board. These include diversification, divisionalization and divestment.

Signaling Theory

Another capital structure theory is the signaling theory which can be best explained by the use of two hypotheses; information asymmetry hypothesis and the implied cash flow hypothesis, Myers & Majluf (1984) assumed that the firm's managers have superior information about the true value of the company. If management has favourable

information that is not yet reflected in market prices, the release of such information will cause a larger increase in stock than in bond prices. Secondly, another signaling theory hypothesis is implied cash flow hypothesis which is premised on the idea that managers know more that investors do. It claims that financing decisions are designed primarily to communicate management's confidence in the firm's prospects and, in cases where management thinks the firm is undervalued, to increase the value of the shares.

RESEARCH METHODOLOGY

The research design used in this study was mixed research designs both qualitative and quantitative design (Eliott, 2004, Namusonge, 2010). Secondary data was extracted from the NSE database, Capital Markets Authority (CMA) database, journals and other publications. Primary data was acquired through administering questionnaires and interviews to a purposive sample of Chief Executive Officers, Chief Financial Officers and Financial Managers of companies publicly listed on the NSE as at 2015. A pre-test on a different sample gave a cronbach's alpha greater than 0.7 for all the variables. Data analysis was by descriptive statistics and inferential statistics using Standard statistical techniques including Pearson product moment correlation and regression analysis were employed in the analysis. All the analysis was done using the statistical package for social sciences (SPSS Version.24). Analysis of variance (ANOVA) was used to establish if there is a statistical significance between the observed and expected values with the Pearson Chi square giving the degree significance of the relations, hence establishing the hypotheses.

RESEARCH FINDINGS AND DISCUSSION

Capital adequacy of the company

The study sought to establish the impact of capital adequacy on the financial performance of the companies listed on the Nairobi Securities Exchange. Specifically, the study focused on the capital structure, asset size, cash flows, portfolio risks and growth. The results are depicted in table 1;-

Table 1: Capital adequacy

Item	SA(%)	A(%)	N(%)	D(%)	SD(%)	Mean(sd)
The firm's capital structure is policy based	(49.2)	(45.8)	(3.4)	(1.7)	(0)	1.6 (0.6)
Asset size of the company is increasing yearly as the firm's capital increase	(27.1)	(59.3)	(11.9)	(1.7)	(0)	1.9 (0.7)
Cash flows are not enough for firms operations	(13.6)	(25.4)	(45.8)	(11.9)	(3.4)	2.7(1.0)
The portfolios risk of the company has been stable	(11.9)	(37.3)	(42.4)	(5.1)	(3.4)	2.5 (0.8)

The study indicates that (49.2%) of the respondents strongly agreed that the firm's capital structure is policy based, (45.8%) agreed, (3.4%) were undecided while (1.7%) disagreed. On average, they agreed that the firm's capital structure is policy based mean1.6 (sd 0.6). Sixteen (27.1%) strongly agreed that the asset size of the company is increasing yearly as the firm's capital increases, (59.3%) agreed, (11.9%) were undecided while (1.7%) disagreed. On average, they agreed that the asset size of the company is increasing yearly as the firm's capital increase.

That cash flows are not enough for firms operations was strongly agreed by (13.6%), agreed by (25.4%). (45.8%) were undecided, (11.9%) disagreed while only (3.4%) strongly disagreed. On average, the respondents were undecided on whether cash flows are not enough for firms operations mean2.7 (sd 1.0). (42.4%) of the respondents were undecided on the item that the portfolios risk of the company has been stable, (11.9%) strongly agreed, (37.3%) agreed, (5.1%) disagreed while (3.4%) strongly disagreed. On average, they were undecided that the portfolios risk of the company has been stable (sd 0.8).

Regression analysis

Linear regression model of financial performance/ capital adequacy

The linear regression analysis models the relationship between the dependent variable which is financial performance and independent variable which is corporate income tax.

Table 3: Model summary financial performance/ capital adequacy

R	R-square	Adjusted R-square
0.226	0.051	0.034

a. Predictors: (Constant) capital adequacy

b. Dependent variable: financial performance

The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between capital adequacy and financial performance of companies listed on the NSE in Kenya. The results of the linear regression indicate that R^2 =.051 and R = .226. R value gives an indication that there is a weak linear relationship between capital adequacy and financial performance of the listed Companies on the NSE in Kenya. The R^2 indicates that explanatory power of the independent variables is 0.051. This means that about 5.1% of the variation in financial performance is explained by the model ***FP*** = ***β0*** +***β1***(**Capital adequacy**). Adjusted R^2 is a modified version of R^2 that has been adjusted for the number of predictors in the model by less than chance. The adjusted R^2 of 0.034 which is slightly lower than the R^2 value is a precise indicator of the relationship between the independent and the dependent variable because it is sensitive to the addition of irrelevant variables. The adjusted R^2 indicates that 3.4% of the changes in the financial performance is explained by the model ***FP*** =***β0*** + ***β1***(**Capital adequacy)**

Table 4: ANOVA of financial performance/ capital adequacy

Model	Sum of squares	df	Mean square	F	p-value
Regression	17.011	1	17.011	3.056	0.086
Residual	317.294	57	5.567		
Total	334.305	58			

a. Predator: (Constant), capital adequacy

b. Dependent variable: financial performance

The results of ANOVA test which reveal that capital adequacy has no significant effect on financial performance of companies listed on the NSE since the P value is 0.086 which is greater than 5% level of significance. This is depicted by linear regression model ***FP*** = ***β0*** + ***β1*** (**capital adequacy*)*** where FP is financial performance and capital adequacy. The *P* value was 0.086 implying that the model was not significant. The study therefore failed to reject the first null hypothesis;

Ho: Capital adequacy does not significantly affect the financial performance of companies listed on the NSE.

Table 6: Model coefficient

Model	Coefficient	Std error	p-value
Constant	6.767	1.220	<0.001
Capital adequacy	0.193	0.110	0.086

Dependent variable: financial performance

Predator (Constant) : capital adequacy

The results indicate there was positive gradient which reveals that an increase in capital adequacy leads to an increase in financial performance.

DISCUSSION OF THE KEY FINDINGS

Capital adequacy was measured by four constructs and the results found a positive relationship between capital adequacy and financial performance of companies listed on the NSE in Kenya. The individual constructs of capital adequacy were tested and it was evident that most of the firm's investment made over the last ten years has been affected capital adequacy. The results agree with the findings by Jens and Schellnus (2008).

Conclusions

The conclusions were based on the objective of the study that capital adequacy had a significant influence on financial performance. The focus of this study was on financial performance of companies listed on the NSE in Kenya since the sector is expected to play a critical role in propelling the economy to a 30% growth rate. The results established that capital adequacy was found to significantly and positively influence financial performance of companies listed on the NSE in Kenya to a very high extend. In addition, the findings indicate that the ratios of firm's profitability have the most significance in determining the financial performance of companies listed on the NSE in Kenya. When capital adequacy stated hypotheses were tested in the regression model it was found to have a significant relationship between itself and financial performance of listed companies on the NSE in Kenya. The findings of the study established that capital adequacy, as an important component of fiscal policy, is a topical issue of great interest impacting both macroeconomic and microeconomic. The key finding is that capital adequacy contributes positively to the companies listed on the NSE in Kenya and therefore it is paramount for companies to have a sound capital base in order to remain competitive and maintain the confidence of its customers. It is necessary to ensure that firms have sufficient capital. Capital regulations are therefore put in place to ensure that banks meet the minimum capital requirements expected of them.

Recommendations

The researcher recommends the adoption of capital adequacy in order to improve financial performance of companies listed on the NSE in Kenya. The study findings support the view that capital adequacy has a significant effect on financial performance. Policies should ensure that companies pay their corporate income tax promptly and consequently better financial performance of companies listed on the NSE in Kenya. The study recommends that It is necessary to ensure that firms have sufficient capital. Capital regulations are therefore put in place to ensure that banks meet the minimum capital requirements expected of them. Secondly, The study recommends that other researcher to identify policy makers with useful input for formulating Government policies to avert poor performance and consequently bankruptcy of listed companies and enlighten the Investors who will be interested in the study as they will be in a position to protect their investments and direct them to the best performing companies at the securities exchange which will in turn spur economic growth in the long-term.

Areas of further research

The study suggest more variables to be carried out taking into account the prevailing macro-economic variables as the control variables since they play a major roles in decisions making among the board of directors. Other studies should be carried out taking into account other performance variables such as Return on Equity and Return on Asset as opposed to the current study which only considered profitability and Return on Investment as a means of financial performance. The study found out that capital adequacy improves financial performance.

However, the study did not come up with any optimum point at which the firms should employ it. It is on the above basis that this study recommends further studies to establish other determinants of financial performance. Further studies could be carried out to identify the impact of capital adequacy on the financial performance of companies listed on the NSE in East Africa.

REFERENCES

Agha, H. (2014). Impact of Working Capital Management on Profitability. European Scientific Journal,10(1), 374 -381.

Athanasoglou, B Sophocles, A & Matthiaos, K (2013). A Comparison of Financial Performance in the Banking Sector: Some Evidence from Omani Commercial Banks". International Research Journal of Finance and Economics 3, 103-112.

Babbie, E., & Mouton, J. (2001). Qualitative data analysis. The Practice of Social Research, South African Edition.

Bhandarkar, P. L., Wilkinson, T. S., & Laldas, D. K. (2003). Methodology & Techniques of Social Research. Himalaya Publishing House.

Diamond, P (2000). Bank Performance in Transition Economies, Wiliam Davidson working paper Number 505.

Fama, E. F., & French, K. R. (2012). Size, value, and momentum international stock returns. Journal of Financial Economics, 105(3),457-472.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2000). How to design and evaluate research in Business (Vol. 7). New York: McGraw-Hill.

Kothari W. and Matthias D.S., (2011). Ignorance and Surprise: Science, Society, Ecological Design. Cambridge, MA: MIT Press (Inside Technology Series).

Memba, S. (2011). The Impact of Venture Finance on Performance of small and Medium Enterprises in Kenya. Unpublished PhD Thesis. Jomo Kenyatta University of Agriculture and Technology

Modigliani F. and Miller M.H. (1958). The cost of capital, corporation finance and the theory of investment", American economic Review, 48(3), 261-297.

Morck, R., Shleifer, A. & Vishny, R. (2014). Management ownership and market valuation: An empirical analysis. Journal of Financial Economics, 20, 293-315.

Mugenda & Mugenda, (2003). Research Methods. Quantitative and Qualitative

Approaches, Nairobi: Acts Press

Myers (1984). Corporate financing and investment decisions when firm have information that investors do not have, Journal of Financial Economics, Vol. 13. pp. 187-221.

Mwangi, J. (2016) Effect of Financial Structure on Financial Performance of Firms Listed at East Africa Securities Exchanges Unpublished Phd Thesis. Jomo Kenyatta University Agriculture and Technology

Namusonge G.S, Mutua S.M, Karanja K (2012), Role of Human Resource Management Practices on Performance of Financial Cooperatives Based in Nairobi County, Kenya, Journal of Humanities and Social Sciences, 2(22).

Namusonge, G. S. (1999). Entrepreneurship development Micro and small enterprises in Kenya. Agency for improving the policy environment in Mullei, A., & Bokea, C. Nairobi: ICEG & USAID.

Namusonge, G. S. (2010). Business Statistics: Concepts and Applications. Beau Bassin, Mauritius: VDM Publishing House Ltd.

Neuman, L. W. (2000). Social research methods: Qualitative and quantitative approaches.

Njeru, W. (2012). Effect of entrepreneurial mindset on the performance of small manufacturing firms in Nairobi Industrial Area, unpublished PhD project, Jomo Kenyatta University of Agriculture and Technology.

Okelo, C. A. (2015). Determinants of Financial Risk of Listed Companies on the Nairobi Securities Exchange in Kenya (Doctoral dissertation).

Ongore, V. & Kusa, G, (2013). Determinants of financial performance of commercial banks in Kenya. International Journal of Economics and Financial issues3(1), 237-252