International Journal of Economics, Commerce and Management
United Kingdom Vol. VI, Issue 5, May 2018
http://ijecm.co.uk/ ISSN 2348 0386

FINANCIAL PERFORMANCE AND STOCK RETURNS AMONG LISTED BANKS IN KENYA

Felix Obala
Department of Commerce & Economic studies,
Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya
obalafelix@gmail.com

Tobias Olweny
Lecturer, Department of Commerce & Economic studies,
Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya
tolweny@jkuat.ac.ke

Abstract

This study sought to determine the relationship between financial performance and stock returns. Data was obtained from 10 listed banks in the Nairobi Securities Exchange for the period between the year 2011 and 2015. Parameters investigated against stock returns include profitability (ROA), leverage (Debt to Equity Ratio), liquidity (Current Ratio) and firm's growth (Asset growth ratio).The multiple Regression analysis demonstrated that Profitability (ROA), Liquidity (Current ratio) and Firm's Growth (Asset growth ratio) hold a moderate but positive influence on stock returns. However, the relationship between Leverage (Debt to equity ratio) and stock returns was found to be negative and insignificant.

Keywords: Stock returns, Leverage, Profitability, Liquidity, Firm's Growth

INTRODUCTION

Stock market is a critical part of the economic system in which ownership of a firm can be bought or sold (Myers, 2001). It provides an avenue through which shares or securities are issued and traded through exchanges (Mishkin & Eakins 2009). It also provides a platform for firms to raise funds (Gatua, 2013). According to McGregor, (1989), stock market acts as a barometer of the financial health of listed firms.

Financial performance of a firm measures how successful the firm is and how it will be utilized as a benchmark for the investors to invest their funds. High performance contributes to an increase in the stock market price since investors will respond positively to such signs. Stock price represents the value of the firm and therefore, an increase in stock market price will indicate an increase in a firm's value (Sudiyatno et al., 2012). Financial performance is measured in terms of profitability, liquidity, solvency, financial efficiency and repayment capacity (Myers et al., 2009).

Studies on stock returns in relation to financial performance have had conflicting conclusions on the nature of the relationship. Using profitability ratios such as ROA, ROE and Net profit margin, Issah, (2015); Nurah & Ghassan, (2016) and Anwaar, (2016) found that an increase in financial performance significantly increases stock returns. According to Muhammad et al. (2014), market based financial measures better explain stock returns as opposed to accounting based financial measures. Dehuan & Jin, (2008) pointed out that performance measures such as ROA, ROE and ROI had some explanatory power of the changes in stock price for the first two years of the testing period but this power generally reduced with increase in stock prices. It was suggested that stock price increased in the last two years of study but not as a result of the firm's operating performance. Other parameters such as liquidity have showed a positive correlation with stock returns according to Vinh & Batten, (2010) while other studies have drawn a conclusion that liquidity is negatively correlated to stock returns (Marshall & Young, 2003; Akram, 2013). With leverage as an independent variable, Muradoglu & Sivaprasad, (2008) found that leverage was negatively related to stock returns in the consumer goods, consumer services and industrial services. Hence, this study sought to find out the relationship between financial performance and stock returns of banks listed in NSE in particular, commercial banks in Kenya?

LITERATURE REVIEW

Studies have been carried on the relationship of different parameters of financial performance and stock returns. Dehuan & Jin, (2008) studied firm performance and stock returns: an empirical study of the top performing stocks listed on Shanghai stock exchange for the period 1996 to 2000.They concluded that performance measures had some explanatory power of the stock price changes in the first two years during the testing period but this power generally reduced as stock prices rose. This suggested that the stock price increase from 1998 to 2000 was not driven by the firms' operating performance.

Foroghi & Jahromy (2015) studied the effect of profitability on stock returns based on the price, return and differenced model in the Tehran Stock Exchange. The results suggested that

all models profitability impact on stock returns and profitability factor should be addressed for earning higher returns.

Issah, (2015) conducted a study on the relationship between profitability ratios and market share prices of publicly traded banking financial institutions in Ghana for the period 2009 to 2013.He concluded that ROA, ROE and ROI have significant linear relationship with market share price with ROE contributing more than ROA.

Nurah & Ghassan, (2016) examined the relationship between financial indicators such as profitability and leverage measures and stock return in Amman Stock Exchange, Jordan. The results showed that (GPM), (ROA), (ROE), and (EPS) affect stock return significantly while NPM and leverage measures (DR, DER and ICR) do not have a significant relationship with stock return.

Anwaar, (2016) conducted a study to determine the effect of firm performance on stock returns, evidence from the firms listed on FTSE-100 Index, London Stock Exchange over the period 2005 to 2014. According to the results, net profit margin and return on assets have significant positive effect on stock returns while earnings per share has significant negative effect on stock returns.

A study by Akram, (2013) investigated the effect of liquidity on stock returns: Evidence from Pakistan. From the study he concluded that there is negative relationship between liquidity and stock returns.

Marshall & Young, (2003) carried out a study on the effect of liquidity and stock returns in pure order driven markets: evidence from the Australian stock market. They found significant negative relationship between financial asset returns and rotation ratio. However, amortized spread does not show any significance.

A study by Vinh & Batten, (2010) investigated the relationship between liquidity and stock returns in the Vietnam stock market during financial crisis using a data set ranging from 2006 to 2010. This result contradicts previous results which indicated that liquidity is negatively related to stock returns as investors required a premium to compensate for illiquid stocks in developed markets.

Gharaibeh, (2014) investigated how stock returns are influenced by non- profit indicators derived from corporate financial reports in Amman Stock Exchange for the period 2009 to 2012. The result showed that both liquidity and capital structure had weak relationships with stock returns. It also indicated that the relationship between liquidity and stock returns was significant while the relationship between capital structure and stock returns was insignificant.

Mahdi et al. (2011) conducted a study on the relationship between stock returns and liquidity in companies listed on Tehran Stock Exchange. The results indicated that stock returns and liquidity are negatively correlated.

Ogutu et al. (2015) carried out a study that sought to determine the effect of capital attributes on performance of commercial and services companies listed on NSE, Kenya. According to the study, increased financial leverage has a negative effect on performance of commercial and services companies listed at the NSE as measured. The findings also indicated that the firms' performance improved when more current liabilities were used to finance assets. Additionally, the study found that increasing the proportion of current assets in relation to total assets enhanced performance.

Ahmad et al. (2013) studied the co-determinants of capital structure and stock returns on the Taiwan stock exchange. The study concluded that, leverage and stock exchange both affect each other but that leverage has a dominant effect on stock returns.

Chen et al. (2002) conducted a study on asset growth and stock. Findings of the study showed that asset growth and stock returns have a negative relationship. Cooper et al. (2008) investigated the effects of asset growth and subsequent stock returns of the NYSE, Amex and NASDAQ nonfinancial firms' stocks. The study revealed that asset growth has a strong predictor of future abnormal returns even on large capitalized stocks

METHODOLOGY

The study explained the effects of financial performance on stock returns by using a descriptive research design. Using purposive sampling method, all the 10 listed banks in the Nairobi Securities exchange were sampled. The secondary data was obtained from the records of the Nairobi Securities Exchange and the listed banks. The sources of data entailed NSE manuals, annual reports, daily trading sheets and financial reports published by banks. The data covered a period 5 years from 2011 to 2015. The following were the companies studied; Barclays Bank Ltd, CFC Stanbic Holdings Ltd, Diamond Trust Bank Ltd, HF Group Ltd, KCB Group Ltd, National Bank of Kenya Ltd, NIC bank Ltd, standard Chartered Bank Ltd, Equity Group Holding and The Co-operative Bank of Kenya. The study used multiple regression analysis to show the degree of relationship between the two variables in the study (Mugenda & Mugenda, 2003). The multiple linear regression model adopted for the study is as follows:

$$Y=\alpha + \beta 1X1+ \beta 2X2+ \beta 3X3+ \beta 4X4 + \varepsilon$$

Where:

Y = Stock Returns; X1 = Profitability; X2 = Liquidity; X3 = Leverage;

X4 = Firm's Growth

Data was organized, prepared and analyzed using the SPSS statistical software. F-test was used to test the significance of the model coefficients and t-test was used to test significance of individual coefficients. Significance of the multiple regression analysis models was determined at 95% confidence interval and 5% level of significance.

RESULTS

A Pearson correlation was run between stock returns and the Variables to determine the variable interactions between independent variables and the dependent variable.

Table 1: Pearson Correlation Output

Pearson Correlation	Stock Returns	ROA	Current Ratio	Debt to Equity ratio	Asset growth Ratio
Stock Returns	1.000				
ROA	.60	1.000			
Current Ratio	,55	.054	1.000		
Debt to Equity ratio	-.065	-.208	-.242	1.000	
Asset growth Ratio	.54	.013	-.021	.212	1.000
Sig. (1-tailed)	Stock Returns	ROA	Current Ratio	Debt to Equity ratio	Asset growth Ratio
Stock Returns	1				
ROA	.0103	1			
Current Ratio	.0219	.222	1		
Debt to Equity ratio	.181	.002	.000	1	
Asset growth Ratio	.025	.430	.382	.001	1

The Pearson's correlation and the P values were used to determine the relationship and the level of their significance based on the George & Mallery (2016) scale.

Table 2: The Summary of results of Pearson's correlation

Variable relations	Significance test	Remarks
Stock returns versus ROA	(r=0.6, p=.0201,p<0.05)	Moderate positive relationship that is significant
Stock returns Versus Current Ratio	(r= 0.55,p=.0338,p<0.05)	Moderate positive relationship that is significant
Stock returns versus Debt to equity ratio	(r=-0.065,p=.0542,p>0.05	Week negative relationship that is insignificant
Stock Returns Versus asset growth ratio	(r=.54,p=.0337,p<0.05)	moderate positive relationship that is significant

From the summary in Table-2, Return on assets, Current ratio, and asset growth all have a moderate positive relationship with stock returns. However, the Pearson correction moment test has failed to establish a significant relationship between stock returns and debt to equity ratio.

Regression analysis

In this section, model parameters are estimated using the least squares method. The usefulness of the model in explaining stock returns with the financial performance of the banks listed in the Nairobi stock exchange is examined by assessing whether the combination of different variables was useful. Further, the usefulness of each of the independent variables in explaining the financial performance of listed banks is assessed.

Table 3: Coefficients and significance levels

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
constant	.081	.073			
ROA	1.938	1.511	.091	5.283	.0020
Current Ratio	.02	.002	.068	3.961	.0033
Debt to Equity ratio	-.00003974	.000	-.0083	-1.172	.0542
Asset growth Ratio	.260	.270	.062	4.963	.0033

In the model, we are using Unstandardized Coefficients to predict the dependent variable. From table-3, Debt to Equity Ratio depicts a coefficient of -0.00003974, ROA rate is 1.938, Current ratio is 0.02 and asset growth ratio is 0.260. This indicates that for every one unit increase in ROA, Current ratio, Asset growth there is a corresponding increase in predicted stock returns of 1.938, 0.02, and 0.260 respectively. This values have been used in the estimation of the model as shown below:

Stock Returns (Y) = 0.081+1.938 (ROAX1) + 0.02 (Current Ratio X2) -0.00003974 (debt to equity ratio) +0.260 (Asset growth ratio X4).

Model Estimation

Table 4: Model out of multiple regression analysis results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.767[a]	.663	.643	.174259870718640

The value of R- Multiple correlation coefficient which is a measure of the quality of the prediction of the dependent variable indicates a value of 0.767 which shows significantly good levels of predictions.

The coefficient of determination R Square indicates the proportion of variance in the dependent variable that is explained by the independent variables. From the above table the value of R Square of 0.663 shows that independent variables explain 66.3% of the variability of the dependent variable.

However, from statistical theory, multiple linear regression cannot rely solely on R^2 value in establishing and concluding the usefulness of the model as the coefficient of determination R^2 can be enhanced by growing the number of variables in the model. Therefore, the study embraced another test to determine the usefulness of the model to complement the findings of the R^2 statistic -the ANOVA test.

Table 5: ANOVA Output

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	.139	4	.035	2.146	.000[b]
Residual	5.921	195	.030		
Total	6.061	199			

The study was conducted at 0.05 confidence and p-values were used to make a decision about the coefficients. From table-5 the result of the p-value from the ANOVA output results are 0.00. Thus we conclude that the model is significant since p-value is less than 0.05. The F-Ratio in the table of ANOVA explains the overall regression model. The independent variables significantly predict the dependent variable as exhibited by the following results $F(4,195) = 2.146$, $P<0.05$. This affirms our results of R^2 above that the model is a good fit in explaining stock returns.

CONCLUSIONS

Based on the findings ROA has a moderate but positive influence on stock returns of the listed banks. This is in line with the findings of Anwaar, (2016); Issah, (2015); Nurah and Ghassan, (2015) even though they indicated that the relationship was highly significant.

The study also established that current ratio positively influence stock returns although the relationship is moderate in significance. The findings supported the premise of the study by Batten and Vinh, (2011) who concluded that liquidity positively affects stock returns. It was

however, in contradiction of the study of Akrama, (2013); Mahdi et al, (2011) who concludede that the influence of liquidity on stock returns is negative.

It was established that the influence of leverage on stock returns is insignificantly negative. This finding was in line with Andersson, (2016) who also pointed out that leverage and stock returns have a negative relationship.

Asset growth was found to have a positive but moderate relationship with stock returns among the listed banks. This contradicts Chen et al. (2002) who found out that asset growth and stock returns have a pervasive negative relationship.

The selected financial performance indicators (Profitability, Liquidity and Firm's growth) have a moderate positive relationship with stock returns. Leverage is insignificant as a predictor of stock returns in the NSE. The variables explained 66.3% of the variability in stock returns of the listed banks in Nairobi stock exchange. ROA, Current ratio and assets growth ratio are statistically significant at $\alpha = 0.05$. Debt to Equity ratio negatively influences stock returns but it is not significant. Thus, stock returns are affected by ROA, Current ratio, and assets growth ratio.

RECOMMENDATIONS FOR FUTURE RESEARCH

Findings of this study indicates the value of R^2 at 0.663. This implies that approximately 1/3 of variance in the dependent variable is not explained by the independent variables. The study only selected few variables against stock returns however, there are more internal and external factors that could influence stock returns of any listed bank. The internal factors includes factors such as board composition, use of technology and dividend policy while external factors includes factors such as inflation, host country regulations, political instability, competition and interest rates. The study therefore recommends that, these variables be considered in future studies of factors influencing stock returns.

REFERENCES

Ahmad, H., Fida, B. A., & Zakaria, M. (2013). The co-determinants of capital structure and stock returns: evidence from the Karachi stock exchange. The Lahore Journal of Economics, 18(1), 81-92.

Akram, N. (2013). The Effect of Liquidity on Stock Returns: An Evidence From Pakistan. IOSR Journal of Business and Management, 16(2), 66-69.

Anwaar, M. (2016). Impact of Firms' Performance on Stock Returns (Evidence from Listed Companies of FTSE-100 Index London, UK). Global Journal of Management and Business Research, 16(1), 30-39.

Myers, S., Brealey, R., & Marcus, A. J. (2009). Fundamentals of Corporate Finance (6th ed.) . McGraw –Hill.

Chen, M., P. Xie, Janowiak, J. E., & Arkin, P. A. (2002). Global land precipitation: A 50-year monthly analysis based on gauge observations. Journal of Hydrometeoroly, 3(3), 249–266.

Cooper, M. J., Gulen, H., & Schill, M. J. (2008). Asset growth and the cross-section of stock returns. The Journal of Finance, 63(4), 1609-1651.

Dehuan, J., & Jin, Z. (2008). Firm Performance and Stock Returns: An Empirical Study of the Top Performing Stocks Listed on Shanghai Stock Exchange. Academy of Accounting and Financial Studies Journal, 12(1), 79-85.

Foroghi, D., & Jahromy, S. M. E. (2015). Impact of profitability on stock returns based on the price, return and differenced models in Tehran Stock Exchange. International Journal of Applied Business and Economic Research, 13(2), 955-970.

Gatua, F. K. (2013). Analysis of share price determinants at Nairobi Securities Exchange. Msc, Thesis, University of Nairobi, Kenya.

George D., & Mallery, P. (2016). BM SPSS Statistics 23 Step by Step: A Simple Guide and Reference 14th Edition, Routledge, New York.

Gharaibeh, A. (2014). Capital structure, liquidity, and stock returns. European Scientific Journal, 10(25), 171-179.

Issah, O., & Ngmenipuo, I. M. (2015). An empirical study of the relationship between profitability ratios and market share price of publicly traded banking financial institutions in Ghana. International Journal of Economics, Commerce and Management, 3(12), 27-42.

Mahdi, S., Ghodratallah, T., & Behzad, G. (2011). A Study of the Relationship Between Liquidity and Stock Returns of Companies Listed in Tehran Stock Exchange. World Applied Sciences Journal, 12 (9), 1403-1408.

Marshall, B. R., & Young, M. (2003). Liquidity and stock return in pure order driven markets: evidence from the Australian stock market, International Review of Financial Analysis 12(2), 173-188.

McGregor, R., & Mcgregor, A. (1989). The Mechanics of the Johannesburg Stock Exchange. Juta and Company Limited, Cape Town, ISBN: 0-7021-2248-3.

Mishkin, F.S. & Eakins S. (2009). Financial Markets and Institutions (6th ed.). Pearson Prentice Hall.

Muhammad, N., Scrimgeour, F., Reddy, K., & Abdin, S. (2014). Emission indices for hazardous substances: An alternative measure of corporate environmental performance. Corporate Social Responsibility and Environmental Management, 23(1), 15-26.

Muradoglu, G., & Sivaprasad, S. (2008). An empirical test on leverage and stock returns, Retrieved April, 24, 2012.

Myers, S. C. (2001). Capital structure. The Journal of Economic Perspectives, 15(2), 81-102.

Nurah, M. A., & Ghassan, S. O. (2016). The Relationship between the Stock Return and Financial Indicators (Profitability, Leverage): An Empirical Study on Manufacturing Companies Listed in Amman Stock Exchange. Journal of Social Sciences, 5(3), 408-424.

Ogutu, A. W., Riro, K., & Afande, O. (2015). Effect of capital attributes on the performance of commercial and service companies listed in Nairobi Securities Exchange. International Journal of Social Science Management and Entrepreneurship, 2(1), 313-326.

Sudiyatno, B., Puspitasari, E., & Kartika, A. (2012). The Company's Policy, Firm performance, and Firm Value: An Empirical Research on Indonesia Stock Exchange. American International Journal of Contemporary Research, 2 (12), 30-40.

Vinh, X. V., & Batten, J. (2010). An Empirical Investigation of Liquidity and Stock Returns Relationship in Vietnam stock markets during financial crisis. Munich Personl Repec Archive (MPRA) Paper No. 29862.