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EFFECT OF CAPITAL MARKET DEEPENING ON FINANCIAL PERFORMANCE OF LISTED COMMERCIAL BANKS IN KENYA

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ABSTRACT

The main objective of the study was to determine the relationship between capital market deepening and the financial performance of listed commercial banks in Kenya. The target population for the study was all commercial banks listed in the Nairobi Securities Exchange. Particularly, there were eleven (11) banks listed in the Nairobi securities exchange in Kenya as at 31st December 2017. The study used purely secondary data. Data on capital market capitalization and financial openness (FDI) was sourced from Central Bank of Kenya and Nairobi Securities Exchange while data on the banks' financial performance was obtained from the published financial statements. The Statistical Package for Social Sciences computer software aided in the data analysis. The study found that capital market deepening is affected by four main determinants including market capitalization, market liquidity, stock market performance as well as financial openness. Results of the panel model analysis showed that the coefficient of determination R-Squared gave a value of 0.6296 which meant that 62.97% of the variations in performance of the listed commercial banks was explained by independent variables computed in the model. However, only market capitalization and financial openess were established to was statistically significant at 5% percent level with a P values of less than 0.05. The study therefore concluded that level and trends of capital market deepening witness in Kenya was largely accounted for by the fluctuations of these variables. The study also concluded that the changes in the performance of the commercial banks evidenced by the trend patterns in the Return on Assets was largely attributed to the changes in these capital market determinants. The study recommended that the managerial staff in the commercial banks to highly prioritize these capital market determinants during the formulation of key organizational goals. They were recommended to come up with different but effective ways through which the commercial banks were able to utilize the capital market deepening for the prosperity and performance of the banks. The study further recommended the government and other regulatory bodies such as the CBK to come up with favourable policies which would promote financial liberalization to facilitate capital market deepening in country.

Keywords: *Market Capitalization, Market Liquidity, Stock Market Turnover, Financial Openness*

INTRODUCTION

Capital markets play a critical role in the development and growth process of not only the developed countries, but also the developing countries (World Bank, 2015). A well developed and efficient capital market aids in liquidity provision, risk transfer, reduction in transaction costs and price discovery. Capital markets are thus created so as to provide avenues through which there is an effective mechanism to enable funds from surplus economic units to be effectively mobilized and thereafter channelled to the deficit units to enable long investment processes (Munene, 2017). In this regard, the investors are able to fully diversify their financial assets portfolio and firms have an opportunity to have a diversified source of finance.

As a result, there has been a recent increase in importance of capital markets and financial institutions globally which has opened an avenue of evaluating the economic growth based on the current capital market deepening status (Nwanna & Chinwudu, 2016). Particularly, economic development and growth has been linked to the monetization in the economy and the development in the financial sector. This has seen capital market deepening become an important tool in the development of the financial sector and supplementing the role played by the financial institutions such as the banks (Yartey & Adjasi, 2007).

Capital market deepening is termed as the accumulation of the financial assets at a faster pace as compared to the accumulation of the non-financial wealth and outputs (Levine, 2005). Efficient management of the financial deepening results in resilience and ability to respond to any macroeconomic variations such as inflations and interest rates fluctuations. This acts to boost the productivity through mobilizing the savings from the surplus units of the economy, to the deficit units. Therefore, capital market development enables the financial institutions to diversify their financial assets and accessibility to alternative sources of finances (Mogaka, 2015).

Capital Market Deepening refers to a financial situation whereby there is an atomized system implying that the financial systems are free from financial repression (Ang, 2007). It may also be defined as the ability of the capital market to be able to effectively mobilize the incomes and savings for the purposes of investments and developments (Nzotta & Okereke, 2009). Similarly, Alrabadi, (2016) terms the capital market deepening as the increased provision of financial services with a wider preference geared to all the levels of the society. This relates to an increase of the financial assets in comparison to the GDP percentage. It is the outcome of acceptance appropriate policies such as relating real rate of return to real stock of finance.

The banking sector in Kenya is governed by various Acts such as The Companies Act, the Banking Act, the Central Bank of Kenya Act and various other prudential guidelines that have been issued by the Central Bank of Kenya (CBK) over the years. The banking sector in Kenya was liberalized in 1995 which led to the removal of exchange controls. The CBK is normally responsible for formulating and implementing the monetary policy adopted by the Kenyan government and ensuring there is liquidity, solvency and proper functioning of the financial system in the country (Tsuma, & Gichinga, 2016).

The capital markets in the Sub Saharan Sector, with the inclusion of Kenya have experienced illiquidity as compared to other markets which are emerging such as Asia (Ziorklui, 2001). The deepening in the capital market is hypothesized to a have a significant effect on the countries through facilitation of the finances. This perceived influence has resulted in increased focus by researchers and entrepreneurs. How important is the capital marketing deepening is on the economy or the determinants of economy growth

are questions that researchers have tried to answer. To study the effects of capital market deepening aid to know the potential benefits and problems that may arise due to using it as an improving the returns in the banking sector.

Capital market structure is made of three main components which include the primary market, secondary market and the derived market. Proper coordination amongst these components is what enables the investors to make effective investment decisions based on their own risks and assumptions (Aduda, Masila, & Onsongo, 2012). In Kenya, the Capital Market was introduced in the 1922 when the stock market was started. Prior to this there was minimal activities until when the reforms were made in the late 1980 which revived the dormant financial sector. Currently, the capital market in Kenya is made up of four main aspects namely; bonds, stock market, banking institutions and pension funds (Ngugi, 2003). Developments and diversification in these dimensions results in increased financial deepening in the country.

Problem Statement

In the recent turbulent macroeconomic environment caused by increased globalization and technology advancement, capital market deepening has proved to be an important economic tool (De Gregorio, 2016). The capital market deepening not only promotes investment opportunities, but also increases the competitive efficiency in the financial markets. This acts to also indirectly benefit the non-financial sectors of the economy as well as increasing the living standards for the people (Wachtel, 2017). The perceived importance has seen the recognition of the role of capital markets in mobilizing capital for economic growth in both developed and developing countries. African capital markets have developed steadily over the years with some 20 stock exchanges and a regional entity covering the countries of the West African Economic and Monetary Union (Alrabadi, 2016). In Kenya however, though capital market has experienced tremendous expansion in the past two decades, it still remains small and illiquid (Odhiambo *et al,* 2013). The banks which dominate the financial systems are yet to operate viable stock market with the markets characterized with few companies listed and low capitalization. Moreover, not all banks are profitable with some banks having good financial performance and others performing poorly (Mogaka, 2015). This raises increased concern as to whether the prevailing capital market deepening conditions affect how the banking sector performs. Empirically, the effect of capital market deepening on financial institutions has received considerable interest from both scholars and academicians. Alrabadi, (2016) conducted a study on the relationship between capital market deepening in Jordan and found a significant long run equilibrium relationship between the variables. Olawumi, et al (2017) carried out a study on Financial Deepening and Performance of Selected Commercial Banks in Nigeria. Findings revealed that each component of capital deepening indicators has a strong relationship and are statistically significant. Musing, (2015) investigated impacts of capital market development in Tanzania and established it has a positive impact on developments in the country. Similarly, Nwanna and Chinwudu, (2016) conducted a study on financial deepening and economic growth in Nigeria and also established a significant and positive effect on economic growth. Locally, Munene, (2017) conducted a study on the effect of financial deepening on capital market development in Kenya. The study found a positive significant interaction between financial deepening and the market development. Mukundi, (2013) investigated the relationship between capital market deepening and NSE listed financial institutions. The study established a close relationship between financial deepening and GDP growth. This concurs with Aduda, Chiai and Murayi (2014) who studied the impact of capital market developing on financial development in Kenya. While Mogaka,

(2015) examined the influence of capital markets deepening on mortgage growth in Kenya. The study found out that equity market capitalization to GDP has a negative influence. The inconsistency in the findings implied that no definite relationship has been found so far among these variables.

This showed that majority of the studies have focused on capital market deepening and its effect in the economy growth in general without considering individual institutions in the country. Additionally, most of the studies conducted have concentrated mainly in the developing countries with there being scarcity of studies done in the developing countries. Understanding the relationship between capital market deepening and economic growth is inevitable if the performance in the crucial banking sector in Kenya is to be improved. This study was thus conducted due to the presence of this research gap, it answered the research question; what is the effect of capital market deepening on the financial performance of listed commercial banks in Kenya?

Research Objectives

The main objective of the study was to determine the relationship between capital market deepening and the financial performance of listed commercial banks in Kenya. The specific objectives were:-

- To evaluate the effect of market capitalization on the financial performance of listed commercial banks in Kenya
- To investigate the impact of market liquidity on the financial performance of listed commercial banks in Kenya
- To determine the influence of Stock Market Turnover on the financial performance of listed commercial banks in Kenya
- To establish the effect of financial openness on the financial performance of listed commercial banks in Kenya

LITERATURE REVIEW

Theoretical Foundation

The Theory of Financial Liberalization

Theory of Financial Liberalization was proposed by Mac Kinnon (1973) in explaining the effects of liberalized financial markets in a country. The theory suggests that there exists a complementary relationship between the financial assets in form of accumulated money balances and the physical accumulation of assets resulting (Mac Kinnon, 1973). A fully liberalized financial system domestically is mainly characterized by lack of controls on borrowing interest rates, no subsidies to certain sectors and lack of credit controls.

Financial liberalization may result to adverse effects on market development in both short term and positively in the long run. Through the liberation of the financial markets, the banks are able to operate more freely and widely with minimal restrictions. However, opposes of liberalization note that it enhances financial uncertainty and low development (Abdulla, 2015). The reason is that liberalizing the system would result to financial crunches since current account opening leads to over borrowing. The importance of the theory is that it links capital market deepening to come about as a result of liberalization in the financial markets which in turn influences the banking sector. This is characterized by increased financial intermediation by both savers and traders with monetization of the economy (Kaminsky & Schmukler, 2003).

Finance Led Growth Hypothesis

The Finance led Growth Hypothesis was proposed by Schumpeter, (1911) in explaining the interrelations between financial markets and efficiency in the capital markets. The theory postulates that the economic aspect in a country and the financial sector exists in a supply lending relationships. Hence development in the financial sector will result in

economic growth being experienced in different sectors. This is because the availability of well-functioning financial sector and financial intermediations will act to provide efficient allocation in resources which in turn promotes growth.

The proposition of the theory is that in scenarios whereby there is evolved and developed financial markets, there will be increased capital accumulation levels from the normal. Higher capital accumulation levels are desirable as there increased capital resources for developing various sectors of the economy. Therefore, based on this theory, improving the financial sector policies and determinants of financial development is mechanism for promoting overall economic growth (Ohwofasa & Aiyedogbon, 2013). Development of capital market is a vital part in growth of the financial sector as it substitutes the functions banks in economic growth. This is because they help price location, provision of liquidity, trading costs reduction and transfer of risk.

Growth-led Finance Hypothesis

Growth-led Finance Hypothesis was formulated and developed by Robinson (1952) in challenging the Finance Led Growth Hypothesis of Schumpeter, (1911). According to this theory, a country experiencing high growth in the economy will result in increased demand for certain financial instruments and arrangements that respond effectively to these changes and demand in the economy. Therefore, the economy will develop the necessary financial markets and institutions to finance the opportunities arising from experienced economic development (Robinson, 1952).

The theory suggests that where enterprise development leads, finance follows. In other words the main cause of financial development is economic growth in response to the demand thus created. Argument arising from this theory is that the factors that determine how economies grow are not confined by the financial sector. Thus, the capital market deepening has no effect on the bank returns but rather it arises as outcome of developments in the economy.

Market Feedback Hypothesis

This theory which is also known as Bi Directional Hypothesis was introduced by Shawn (1973). The theory states that there exists a relationship that is two way between economic growth and development in the financial sector. Hence the financial sector will develop as a result of economic growth which will act as a feed back in stimulation of real economy growth (Akinlo & Egbetunde, 2007). This theory backs the argument of both supply leading and demand following hypotheses.

In this hypothesis, the proposition is that having well developed financial systems could promote high expansion in the economy through innovation in product and services, and technological advancement (Levine, 1997). This in turn results in increased demand for financial arrangements and services. Based on the theory, capital market deepening and performance of the banks in Kenya are interrelated; hence expansion and development of one sector would result in improvement in the other.

Conceptual Framework

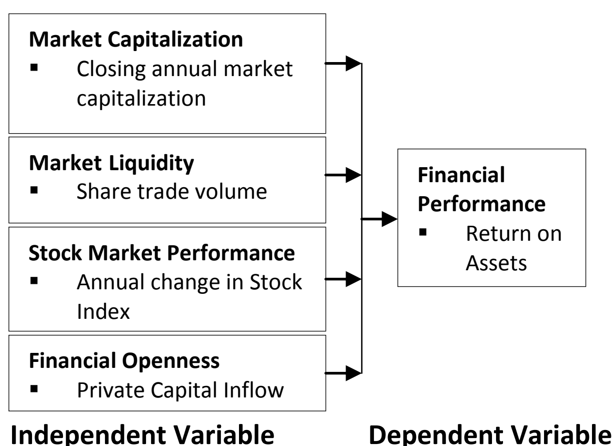

Figure 1: Conceptual Framework

Source: Researcher (2018)

Market Capitalization

Market Capitalization refers to the value of a company that is traded on the stock market, calculated by multiplying the total number of shares by the present share price (Laeven, 2014). This entails the aggregate value of a company's stock. It is mainly indicates any movements which are made by accessing the total value of stocks in a particular stock market and aggregating the market value of the quoted stocks. The market capitalization is not constant as it moves with movement in share prices. As the size of monetary system increases it generates more opportunities for profitable operation thus boosting capital market development in Kenya.

Market Liquidity

Market liquidity entails the extent to which the capital and stock market allows securities to be traded at stable prices. This is a measure of simplicity and quickness in which investors sell securities in the market. It is mainly influenced greatly by forces of supply and demand (Barasa, 2014). Specifically, the liquidity of a company's share is the easy to which the firm's share are either sold or bought. The quicker and easier it is to buy or sell the share on the market, the more accurate the price reflects all available information.

Stock Performance

Stock market turnover comprises the indicator of the market as a whole or of a specific stock. It gives signal to the investors about their future moves. The market turnover indicates the inflows and outflows in stock market and is highly based on traded shares (Kariguh 2014). The stock price performance is measured by using the rate of return on the stock (Osman, 2004). When the stock price obtained is higher than the prior period, the stock record is termed to be superior price performance, and the similar happens when it is lower (Kuria & Riro, 2013). Alternatively, it may be measured using abnormal rate of return (actual return less the expected stock return).

Financial Openness

Financial openness refers to flexibility and integration of the local capital market with the international one. In this study the financial openness was measured mainly by annual private capital inflows. This is accessed using private capital flows as percentage of GDP (Adam, & Tweneboah, 2009). This is an investment which gives foreign owners control over the behaviour of firms in which the investment is made. It is measured by using private capital flows as percentage of GDP.

Financial performance

Financial performance refers to the capability of an organization to grow, remain profitable and respond to challenges and threats. It could also be used to mean how well the organization attains its set goals and targets. The financial performance has been established to be measured differently by scholars such as through; Liquidity ratios (Ronald, 2011; Steve et al, 2006), Total Asset Turnover (Jose, 2010), Leverage ratios (Adams & Buckle, 2003) and Return on Assets (Dand, 2011). The Central Bank of Kenya on the other hand employs the CAMEL framework as the regulatory tool for monitoring bank performance (CBK, 2016). CAMEL is an abbreviation of five assessment areas namely: Capital Adequacy, Asset Quality, Management Efficiency, Earnings Performance and Liquidity (Kongiri, 2012). In this study, the financial performance of the banks was measured using return on assets measure. This is aimed at determining the annual asset performance of the bank and is calculated through dividing the net income by the total assets.

Empirical Literature

Market Capitalization and Financial performance

Yartey and Adjasi (2007) suggest that well developed banking sector, macroeconomic environment, accounting institutions and shareholder protection are necessary determinants of Capital markets

capitalization in Africa. The study used unbalanced panel data from 14 African countries and adopted the regression model to compute data. The study however did not fully describe the relationship that exists between the research variables.

Nyanaro, (2016) conducted a study on economic development in the East African community. The quantitative research methods were employed to define the nature of relationship between the variables. The populations of the study were the All-Share index in the 4 stock markets in the member countries. The results indicated a significant long run association amid market capitalization and GDP growth. The relationship was negative in the short-term nonetheless constructive in the long-term. The study however did not investigate the influence of capital market capitalization on the commercial banks.

Market Liquidity and Financial performance

Adu, Marbuah and Mensah (2013) argue that financial deepening have a positive effect on economic growth in Ghana except the market's liquidity. The study investigated the long-run growth effects of financial deepening in Ghana using one indicator at a time among a set of controls variable. The financial deepening variables used are private sector credit ratio, money supply ratio, total domestic credit and total bank deposit liabilities. This current will aim at establishing whether the same positive effect exists in Kenya.

Adebayo, Olanrewaju, and Oluwayinka (2011) studied liquidity management and commercial banks' profitability in Nigeria. The major aims of the study were to find empirical evidence of the degree to which effective liquidity management affected profitability in commercial banks and how commercial banks could enhance their liquidity and profitability positions. Findings were made through the analysis of both the structured and unstructured questionnaire on the management of banks and the financial reports of the sampled banks. Findings from the testing of this hypothesis indicate that there was significant relationship between liquidity and profitability. This study will aim to ascertain whether the same positive relationship applies to commercial banks in Kenya.

Stock Market Turnover and Financial performance

Rahman and Mustafa (2014) surveyed effect deepening finance and stock market return in selected 19 developed and 21 developing countries from 1988-2013.The study used stock market turnover and liquidity as measures of financial deepening. Using the VECM, the study found out that stock market turnover contributes more to stock market returns than stock market liquidity in both selected developed and developing economies. The study used VECM and established a direct relationship among the variables however the present study used ARDL-VECM and established the mediating effect of gross domestic savings on the relationship between the variables.

Nainder and Reetu (2007) did a study on profitability analysis of public sector banks in India. They concluded that evaluation of banks in terms of profitability is very essential. In order to study the relative efficiency of banks and trends in profitability both Concentration Index and Exponential Growth Rate were used along with relevant ratios. The study found out that stock market turnover was a huge determinant on how the banks performed.

Financial Openness and Financial performance

Law (2008) examined the role of trade and capital openness on financial sector development in Malaysia. Using ARDL with an ECM and found that trade and capital account openness are insignificant determinants of stock market development in Malaysia. In the short run however, openness to trade and capital account negatively affect financial sector development. The study however was not able to fully explain the causes of this negative effect of

the financial openness and this study will aim at addressing this.

Ang (2007) examined to what extent capital development contributed to output financial expansion during the period 1960-2003 in Malaysia. Using augmented neoclassical growth framework to provide an evaluation of the impact of financial sector development on economic development. The researcher found that aggregate output and its determinants are co integrated in the long-run, suggesting that financial development and private capital stocks exert a positive impact on economic development. The study uses different measures of capital market development other than those found in Kenya hence is not comprehensive enough in describing the relationship that exists.

METHODOLOGY

This study adopted the descriptive research design since the study was seeking to establish the relationship between capital market deepening and performance of listed commercial banks. As described by Mugenda and Mugenda, (2003), the descriptive research design is concerned with describing the characteristics of a particular individual, or of a group exactly the way they are without any manipulations. The target population for the study was all commercial banks listed in the Nairobi Securities Exchange. Particularly, there were ten banks listed in the Nairobi securities exchange in Kenya as at January 2018. This study used purely secondary data. The data on capital market capitalization, and financial openness was sourced from Central Bank of Kenya and Nairobi Securities Exchange. The Statistical Package for Social Sciences computer software aided in the data analysis. Tables and graphs were used for presentation of findings.

RESULTS

Market Capitalization Trends

The market capitalization was measured using the total value of shares traded which represented the value the market had placed on the equity of the company. The findings obtained indicated that the annual market capitalization in Kenya had been in a rising trend since 2008 from a low of Ksh 5,445 Billion in 2008 to Ksh 13,890 Billion in 2011 to overall highest of Ksh 37,142 Billion in 2014. This increase in market capitalization was attributed to the increased financial inclusions and information symmetry between the financial institutions and investors which resulted investments. However, the market capitalization decreased significantly since 2015 with the overall lowest of Ksh 19765 Billion in 2016 after which the trend had remained fairly constant. The drop in the market capitalization was largely due uncertainties in the macroeconomic environment characterised by fluctuating exchange rates and recurrence of inflations leading to affected trading activities thus affecting the prices of shares and market capitalization. Hence showing that the market capitalization was highly affected by current economic and political changes.

Market Liquidity Trends

The study adopted the measurement of market liquidity through average annual trade volumes. The findings obtained indicate that the average annual trade volumes had been on a constant increasing trend over the study period. Specifically, although the trade volumes dropped from Ksh 20,061 million in 2009 to Ksh 12,240 million in 2011 they increased steadily to Ksh 87, 450 million in 2015. The trade volumes further increased to close at Ksh 90,324 in 2017. This implied that there was a rampant increase in the market liquidity in Kenya which was brought about by increased financial stability and financial intermediation in the country. Improved market liquidity was of great importance to the economy as it

prevented financial crisis and promotes growth of all economy sectors.

Stock Market Performance

The stock price performance was measured by using the annual rate of return on the stock. The NASI was employed in measuring performance which was a put into practice in 2008 and was used in measuring the performance of the shares of the firms listed. The results obtained indicate that the NSE returns, despite being in unstable it was constantly improving over the study period. The lowest of 33.47 was recorded in November 2008 then later rose to 112.11 in July 2010. The NSE returns however later dropped to 76.91 in May 2017 but had constantly risen to close at 163.2 in 2017. The increase in the stock market performance may have been brought about by reduced fluctuation of the macro-economic variables such as interest rates, exchange rates and interesting rates. This was due to the government introducing regulatory measures including monetary policy and interest caps.

Financial Openness Trends

The financial openness was measured mainly by the private capital inflows. This related to cash inflow for the purpose of investment, research, trade or business production. The findings obtained indicated that private capital inflows in Kenya had shown a positive trend over the study period. The lowest capital inflows were recorded in June 2010 at Ksh 39, 535 million. Notably, since July 2011, the private capital inflows had been on the rise hitting the highest mark of Ksh 130,319 million in 2016 and closing at Ksh 129,101 million in 2017. The positive trend of the private capital inflows may be explained by the fact that there has been increase in entrepreneur culture, increased foreign remittances as well as conducive environment which had been facilitated by a relative political stable environment since 2007.

Commercial Bank Performance

The financial performance of the banks was measured using return on assets measure. This was aimed at determining the annual asset performance of the bank and was calculated through dividing the net income by the total assets. The findings obtained indicated that the performance of the listed commercial banks was increasing substantially since 2007 whereby a low ROA of the listed commercial banks of 0.48% was attained. Specifically, despite a drop in the ROA of the listed commercial banks to 1.90% in 2011, the ROA increased to 3.48% in 2013 and increased even further to close at 4.40% in 2017. The improvement on how the listed commercial banks perform was largely due to the increased economic efficiency, continuous productivity, increased innovations for financial products and increasing GDP growth which had grown from 4.6% 2012 to over 8% in 2017. This showed that the performance of the listed commercial banks was determined greatly by the level of financial innovations, financial deepening and economic condition.

Descriptive Statistics

The descriptive statistics for the ten year study period were shown in Table 1. The minimum market capitalization attained was 15.23, maximum of 21.34 and mean score of 11.2057. The minimum of the market liquidity over the period was 4.25, maximum of 18.79 and mean of 3.1996. The minimum of stock market performance over the period was 50.82, maximum of 173.7 and mean of 100.91. The minimum of financial openness over the period was 19,535, maximum of 11,017.20 and mean of 79,900.07. While the minimum ROA over the period was 59.02, maximum of 223.63 and mean of 128.14.

Table 1: Descriptive Statistics

	N	Mean	Min	Max	Std. Deviation
Market Capitalization	100	11.2057	15.23	21.34	1.3202
Market Liquidity	100	3.1996	4.25	18.79	4.09318
Stock Market Performance	100	100.91	50.82	173.7	30.93
Financial Openness	100	3.24	1.89	9.33	0.9768
ROA	100	8.7974	17.1839	12.7484	1.7232

Correlation Analysis

To establish the relationship that existed between the research variables, Karl Pearson's coefficient of correlation was employed by the study. This method entails the measure of the strength of a linear association between two variables and was denoted by r. The findings were presented in Table 2.

Table 2: Correlation Analysis

		Performance	Market Capitalization	Market Liquidity	Stock Market Performance	Financial Openess
Market Capitalization	Pearson Correlation	.633**	1			
	Sig. (2-tailed)	0.0024				
Market Liquidity	Pearson Correlation	.577**	.434**	1		
	Sig. (2-tailed)	0	0			
Stock Market Performance	Pearson Correlation	.580**	.473**	.503**	1	
	Sig. (2-tailed)	0.001	0.498	0.643		
Financial Openess	Pearson Correlation	.603**	.492**	.575**	.570**	1
	Sig. (2-tailed)	0.0211	0.261	0.342	0.013	
	N	100	100	100	100	100

**. Correlation was significant at the 0.01 level (2-tailed).

As shown by Table 2 all the independent variables; Market Capitalization (r=0.633**, P=0.0024) Market Liquidity (r=0.577**, P=0.000), Stock Market Performance (r=0.580**, P=0.001) and Financial Openess (r=0.603**, P=0.0211) and had a positive and significant relationship with performance of the listed commercial banks. The correlation of the variables ranged from 1 to -1. The closer the correlation was to 0, the weaker the correlation between the variables. All the variables showed a positive relationship with the dependent variable. This was interpreted to mean that any increase of the independent variables increased the performance of the listed commercial banks.

Panel data model

The study adopted panel data models in describing the individual behaviours across time and individuals. The importance of the panel data models was to provide more in depth information about the processes under study over the ten year period. Specifically, the random effects models were employed as per the Hausman Test. The findings of the random effect models were shown by Table 3.

Table 3: Random Effects Regression Results

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Periods included: 10
Cross-sections included: 10
Total panel (balanced) observations: 100

Test Variables	Co-efficient	Std. Error	t-Statistic	Prob.
Market Capitalization	0.595	0.244	2.440	0.016
Market Liquidity	0.028	0.080	0.356	0.723
Stock Market Performance	0.123	0.084	1.453	0.149
Financial Openess	0.768	0.263	2.927	0.004
R-squared	0.6297	Mean dependent var		0.0744
Adjusted R-squared	0.5805	S.D. dependent var		0.1575
S.E. of regression	0.0620	Sum squared resid.		0.9644
F-statistic	134.5347	Durbin-Watson stat.		1.6984
Prob(F-statistic)	0			

Capital Market Deepening and Financial Performance

The coefficient of determination R-Squared gave a value of 0.6296 which meant that 62.97% of the variations in performance of the listed commercial banks was explained by the variations in the independent variables computed in the model. This implied that only 37.03% of the variations in bank performance were accounted for by other factors not present in the model. These other factors may included the size and age of the back as well other macroeconomic variables such as exchange rates and inflations. Market capitalization and financial openness were established to was statistically significant at 5% percent level with a P values of less than 0.05. The study therefore concluded that level and trends of capital market deepening witness in Kenya was largely accounted for by the fluctuations of these variables and the model represents the actual financial performance of the firms under study.

This showed that capital market deepening had a strong positive effect on the performance of listed commercial banks. Empirically, the studies conducted had also established similar positive relationship. Olawumi, et al (2017) carried out a study on Financial Deepening and Performance of Selected Commercial Banks in Nigeria. Findings revealed that each component of capital deepening indicators had a strong relationship and were statistically significant. Similarly, Ang (2007) also established a significant positive relation. However, Musebe, (2015) established that market capitalization did affect the performance of firms listed in the Nairobi Securities Exchange although there was a weak positive relationship. In a similar way, Nyanaro, (2016)

indicated the relationship was negative in the short-term nonetheless constructive in the long-term.

Market capitalization and Financial Performance

The results indicated that there was a statistically significant positive relationship between Market Capitalization with a coefficient of 0.595 and a probability of 0.016 which was less than significance level of 0.05, and performance of commercial banks listed at the NSE as measured by return on assets. This implied that market capitalization had a significant positive relationship with the financial performance of the listed commercial banks. In a similar way, Munene, (2017) conducted a study on the effect of financial deepening on capital market in capitalization Kenya. The study used explanatory and non- experimental research design and found a positive significant interaction between financial deepening and the market capitalization. However, Skamo, (2012) investigated the relationship between market capitalization and profitability of commercial banks listed at the NSE and established that there was a weak positive effect between market capitalization and the profitability of commercial banks.

Financial Openess and Financial Performance

The coefficient for financial openess of 0.768 was statistically significant at 5% percent level with a P value of 0.004. This meant that increase in financial openness will significantly improve the performance of listed commercial banks. The findings related to Karthik and Kannan (2011) who probed the impact of FDI on stock market development in India and revealed a positive relationship between FDI and stock market development of India. However, this tends to contradict Law (2008) who examined the role of trade and capital openness on financial sector development in Malaysia and found that trade and capital account openness are insignificant determinants of stock market development in Malaysia.

Market Liquidity and Financial Performance

The results indicated that market liquidity had a positive insignificant relationship to financial performance of the listed commercial banks with a coefficient of 0.028 and a P value of 0.723 which was higher than 5% significant level. This meant that increase in market liquidity will not significantly improve the performance of listed commercial banks. This coincided with Adebayo, Olanrewaju, and Oluwayinka (2011) who studied liquidity management and commercial banks' profitability in Nigeria and found out that there was insignificant relationship between liquidity and profitability.

Stock Market Performance and Financial Performance

Stock market performance had coefficient of 0.123 and a P value of 0.149 implying that it had a positive but insignificant effect on the financial performance of the listed commercial banks as the P value was higher than significance level of 0.05. Hence when when all variables in this study were combined stock market performance became insignificant in describing the performance of the listed commercial banks. This concurred with Nainder and Reetu (2007) who did a study on profitability analysis of public sector banks in India and found out that stock market turnover was an insignificant determinant on how the banks performed. Also, Kalui (2004) carried out a study on the determinants of stock price volatility, an empirical investigation at the Nairobi stock exchange and revealed that companies quoted at NSE experience stock price volatility and supported the widely known hypothesis that security prices follow a trendless random walk which affected their performance.

CONCLUSION

The study found that capital market deepening was affected by four main determinants including market capitalization, market liquidity, stock market performance as well as financial openness. The study

therefore concluded that level and trends of capital market deepening witness in Kenya was largely accounted for by the fluctuations of these variables. Hence, positive increment of market liquidity, stock market performance, financial openness and market capitalization was concluded to result in improvement of capital market deepening.

The study also found out that these capital market determinants had a positive and significant influence on how the listed commercial banks performed. The study thus concluded that the changes in the performance of the commercial banks evidenced by the trend patterns in the Return on Assets is largely attributed to the changes in these capital market determinants.

The regression analysis further found out that capital market deepening had a strong positive effect on the performance of listed commercial banks. The study therefore came to the conclusion that performance of the commercial banks was highly determined by the current nature of capital market deepening. However, based on the varying significance of the model coefficients of the variables found, it was concluded that the effect of the capital market deepening was influenced differently by the specific capital market deepening determinant.

RECOMMENDATIONS

The study found that four main capital market deepening determinants that affect the financial performance of the banks to be market capitalization, market liquidity, stock market turnover and financial openness. The study thus recommended that the managerial staff in the commercial banks to highly prioritize these capital market determinants during the formulation of key organizational goals. They were recommended to come up with different but effective ways through which the commercial banks are able to utilize the capital market deepening for the prosperity and performance of the banks.

The study also found out that capital market deepening had a strong positive influence on the performance of banks. This was through helping in price location, liquidity provision, reduction of trading costs and risk transfers. The study therefore recommended the government and other regulatory bodies such as the CBK to come up with favourable policies which would promote financial liberalization to facilitate capital market deepening in country. This would in turn promote the performance of the bank which contributes significantly to the economy of the country.

Suggestions for Further Research

While the research questions were well answered, several areas remain unclear and require further research. The study made several suggestions for further researcher on areas which emerged during the study and require further research. To begin with, the scope of the study was limited entirely to the listed commercial banks. This may not be an actual representation of the other commercial banks not listed in the NSE and other financial institutions. The study thus recommended further studies to be conducted in other commercial banks that were not listed at the NSE so as to enable comparison of the findings of the study. The study also focused only on four determinants of capital market deepening affecting the performance of the banks. It was therefore suggested that further studies to be undertaken on other capital market determinants not investigated by the study such as the macroeconomic environment fluctuation and GDP growth patterns. This would enable comprehensive determination of the relationship that exists. Also, further studies to be conducted at a different time frame to establish whether the same phenomenon would be prevailing or changed.

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