DETERMINANTS OF FINANCIAL PERFORMANCE OF COMMERCIAL BANKS LISTED ON THE NAIROBI SECURITIES EXCHANGE OF KENYA

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Abstract  
The Nairobi Securities Exchange as an emerging capital market is faced with numerous challenges such as stock market illiquidity, macroeconomic instability and low rate of domestic savings and investment which in turn affect the financial performance of listed commercial banks. The study’s objective was therefore to evaluate the determinants of financial performance of commercial banks listed on the Nairobi Securities Exchange of Kenya. The results indicated a positive correlation between macroeconomic stability, savings and investments, stock market liquidity and the financial performance of listed commercial banks. The study, therefore, concluded that the financial performance of commercial banks listed on the Nairobi Securities Exchange is determined by the macroeconomic stability, savings and investments and the stock market liquidity. A number of research recommendations spring from the findings, ranging from the sensitization on the awareness of the role a stock market plays in an economy to the establishment of sound macroeconomic policies.

1. Introduction

According to Peter and Rose (2006), a capital market is an institution that provides a channel for the borrowing and lending of long-term finances. The capital market is the principle means through which companies raise capital to expand their operations and it is also the medium used by investors to protect their savings from ravages of inflation hence it is an important development vehicle in every country worldwide.

Specifying the medium for economic amelioration through the capital market, Levine and Zervos (2005) opine that it provides opportunities for companies to borrow finances required for long-term investments; it also provides avenue for the marketing of securities in order to raise capital for the augmentation of operations leading to increased production and it finally concocts a means through which a nation’s financial resources can be allotted among various industries.

Engberg (1975) argued that for developing countries, the capital market might face serious challenges and may not perform efficiently and hence it may not be viable for such economies to bolster capital markets given the huge costs and the poor financial structures. These problems are amplified in developing countries with their weaker regulatory institutions and greater macroeconomic volatility.

According to Yartey and Adjasi (2007), total market capitalization for African markets increased from US$113,423 million to US$ 244,672 million between 1992 and 2002. Indicators of stock market development show that African markets are small with few listed companies and low market capitalization. Egypt, Nigeria, South Africa and Zimbabwe are the exceptions with 792, 207, 403 and 79 listed companies respectively. The average number of listed companies on sub-Saharan African markets excluding South Africa is 39 compared with 113, with the inclusion of Egypt and South Africa (Yartey and Adjasi, 2007).

Masinde and Kibua (2004) describe the provision of funds to finance domestic capital formation as a key factor in the prospect for the long-term economic growth in developing countries. The author observed that the government is compelled to pay increased attention to capital market development due to the reality of a much-reduced supply of foreign funds from routine sources such as commercial banks as a means of improving domestic resource mobilization, enhancing the supply of long-term capital and encouraging the efficiency of existing assets.

A typical capital market comprises of insurance companies, commercial Banks, mortgage funds, mutual funds, finance companies and securities markets. As Pardy (1992) observed, financial liberalization and deepening greatly relies upon security markets. The Author argues that stock markets could engage in other roles apart from administering means of diversifying risk for both investors and capital raisers. For example, they are a mechanism for capital allocation and corporate monitoring and a means for the government to exercise market-based rather than direct fiscal and monitoring policies. The financial markets in middle or low-income are often termed as emerging markets. In this markets, there is a low ratio of market capitalization investable to the gross national product. The international finance corporation sets such parameters to classify the financial markets. The International Finance Corporation (IFC) defines an emerging market as one in which is found in developing country (IFC, 2004).

Ongore and Kusa (2013) used the CAMEL model to study the determinants of financial performance of commercial banks in Kenya. Linear multiple regression model and Generalized Least Square on panel data were used to estimate the data collected from financial statements of the commercial banks and the profitability ratios of ROA, ROE and NIM were used as measures of financial performance. The study found that both capital adequacy and management efficiency have a positive relationship with bank performance but asset quality and bank performance have a negative relationship.

A study by Kiganda (2014) aimed at assessing the effect of macroeconomic factors on bank profitability in Kenya, specifically to determine, examine and evaluate the effects of economic growth, inflation and exchange rate on bank profitability in Kenya with Equity bank in focus. To establish the association between
bank profitability and macroeconomic factors the Ordinary Least Square (OLS) was used. It revealed that equity bank profitability hasn’t been significantly impacted by inflation, real GDP or the rate of exchange.

In another study, Olweny and Shipho (2011) studied the effects of bank-specific factors such as capital adequacy, asset quality, liquidity, operational cost efficiency and income diversification on the profitability of commercial banks in Kenya, as well as the effects of market structure factors; foreign ownership and market concentration on performance banks in Kenya. Using the multiple linear regressions method, their analysis revealed that all the bank-specific factors had a statistically significant impact on profitability, while none of the market factors had a significant impact.

1.1. Problem Statement
The capital market of Kenya is faced with numerous challenges such as political uncertainty and economic depression, stock market illiquidity, macroeconomic instability, low rate of investment and domestic savings among others. The financial sector is inordinately skewed towards banking institutions that are yet to provide long-term capital on an adequate basis. Moreover, debt and equity markets are striving to gain momentum, partly due to the fact that only 67 companies are listed on the NSE, with only a small proportion of shares attracting significant trading volumes.

This has had an adverse effect on the financial performance of the commercial banks listed in the Nairobi Security Exchange and the economic development of the country due to low investments in the Kenyan economy by both local and foreign investors thus leading to high rates of unemployment, insecurity; which is currently at its peak in the country, low infrastructural development among others. The experience of the recent Euro bonds secured by the Kenyan government which was well oversubscribed by foreign investors serves as a clear indication that there is an appetite amongst Kenyan market participants for a more diversified financial asset market. The government of Kenya, in realizing the importance of the security market, instituted various measures including the establishment of the Capital Market Authority as a body tasked with regulation of the capital market in the late 1980s. However, despite various measures instituted by the government at different times, performance indicators show a relatively poor performance of the NSE compared to other emerging stock markets. These include; low turnover ratio, low market capitalization to GDP ratio and low value of stock traded to GDP ratio (IFC, 2004).

If the problem persists, then the level of securities traded will decline which will discourage the shareholders not to have confidence with the companies listed on the NSE making these companies resources being tied up due to the low trading of their shares and bonds thus captured by losses leading to stagnation in the capital market growth.

1.2 Objectives of the Study
2. To examine the effect of savings and investments on the financial performance of commercial banks listed on the Nairobi Securities Exchange of Kenya.
2 Literature Review
There has been considerable interest in the financial performance of listed commercial banks in many developing countries and evidence on the determinants of financial performance of commercial banks listed in the securities market is well documented. This section, therefore, explores the empirical and theoretical literature relevant to the problem.

2.1 Theoretical Review
The researcher explored two theories relevant to the problem; the pecking order theory and the theory of capital asset pricing model.

2.1.1 Pecking order theory
Reid (2003) introduced a framework consistent with the pecking order theory that Flannery and Rangan (2006) revived and named. The pecking order hypothesis suggests that firms finance their needs in a hierarchical fashion starting with internally available funds, then debt, and finally external equity in this theory it is assumed that there are two types of companies, 'good' and 'bad'. Both firms want to raise capital and the first best option is to issue securities at fair value. The “bad” firm will misrepresent itself as a good firm by issuing securities as first means of financing, hence signaling high quality to the market. On the other hand, the “good” firm will use least information financing, that is, internal financing, before the issuing of securities, in a pecking order, hence signaling lower quality resulting in the market giving it less value as it sets the price of securities.

Ogawa et al., (2013), Flannery and Rangan (2006) and Audretsch et al., (2004) clearly bring out the pecking order hypothesis which suggests that firms prefer to use internal equity to pay dividends and implement growth opportunities; and if external finance is needed, firms prefer to raise debt before external equity. According to the pecking order theory, there is no specific reason to issue equity when profits are high. There are several views as to why firms prefer internal financing as opposed to external financing. Reid (2003) suggests that internal equity is preferred with the intention of avoiding flotation costs which usually accompany external finance.

A contrary view is given by Myers (2001) who argues that net benefits associated with debt financing, in terms of tax shield and risk of financial distress, are likely to outweigh flotation costs.

2.1.2 Capital Asset Pricing Model
The CAPM was introduced by Jack Treynor (1962), William Sharpe (1964) and John Lintner (1965). Fischer Black(1972) developed another version called Black CAPM that does not assume the existence of a riskless asset. Empirical testing revealed the robustness of this version. The version was highly influential in increasing the adoption of a model based on capital asset pricing. The intention of developing CAPM was to help explain characteristics of security prices. CAPM also provides a methodology of explaining the characteristics of security prices. Furthermore, it provides investors a mechanism for assessing the impact of a possible security investment on return and overall risk of the portfolio. CAPM is also the source of a conceptual framework that evaluates and links risk to return. An awareness of this trade-off and an attempt to consider risk as well as returns in financial decision making should help managers achieve their goals (Gitman, 2005).

According to Yartey and Adjasi (2007), over the past few decades, the world stock market has surged and emerging markets have accounted for a large amount of this boom. The speed and extent of stock market development in developing countries have been unprecedented and have led to fundamental shift both in
financial structures of less developed countries and in the capital flows from developed nations. A key indicator of stock market development, the capitalization ratio (market capitalization as a proportion to GDP) rose at an unprecedented rate in leading developing economies during the 1980s and the 1990s climbing over 84 percent in countries such as Chile in the course of two decades.

2.2 Conceptual Framework

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macroeconomic Stability</td>
<td>Financial Performance</td>
</tr>
<tr>
<td>• Interest Rate</td>
<td>• Profit</td>
</tr>
<tr>
<td>• Inflation</td>
<td>• Returns on Investments</td>
</tr>
<tr>
<td>• Exchange Rate</td>
<td>• Financial Leverage</td>
</tr>
<tr>
<td>Savings and investments</td>
<td></td>
</tr>
<tr>
<td>• Institutional Investment</td>
<td></td>
</tr>
<tr>
<td>• Foreign Direct Investment</td>
<td></td>
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<tr>
<td>• Local Investment</td>
<td></td>
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<tr>
<td>Stock Market Liquidity</td>
<td></td>
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<tr>
<td>• Average Daily Trading Volume</td>
<td></td>
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<tr>
<td>• The Price Per Share</td>
<td></td>
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<tr>
<td>• Transaction Cost</td>
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</tbody>
</table>

2.3 Empirical Review

The empirical studies review that, factors such as macroeconomic stability, savings, and investments and stock market liquidity affect the financial performance of listed commercial banks.

2.3.1 Macroeconomic Stability

According to Bekaert et al (1995), a stable macroeconomic environment is crucial for the development of the capital market. Macroeconomic volatility worsens the problem of informational asymmetries and becomes a source of vulnerability to the financial system. Low and predictable rates of inflation are more likely to contribute to the stock market development and the development of listed commercial banks. Bekaert et al (1995) argued further that sound macroeconomic environments and sufficiently high-income levels; GDP per capita, domestic savings, and domestic investments are important determinants of stock market development in emerging markets. The interest rate is the price the borrower pays for the use of money borrowed from the lender or financial institution. It is the fee paid for the use of borrowed assets. Interest rate risk is the exposure of the firm’s financial position due to fluctuations in interest rates (Hartmann, 2004). Excessive interest rate fluctuation can pose significant threats to a bank’s earnings and capital base changes and increase its operating expenses.
Changes in interest rates may also affect the underlying value of assets, liabilities and present value of future cash flows. A rise in interest rate may encourage investors to switch from the stock market to the money market. A reduction in interest rates can increase stock activities by availing cheap cash for speculative purposes. An increase in interest rate will increase the opportunity cost of holding interest bearing securities for shares hence falling stock prices (Hartmann, 2004).

Foreign exchange rate is the price at which the currency of one country can be converted to the currency of another. Using the flexible exchange rate system the price of currencies is determined by supply and demand of the currency in the forex market. The inflation rate refers to the change in the general level of prices in the economy over a given period of time. If the inflation rate is high, the tendency is that as the real income declines, the investors end up selling their assets, including stocks to enhance their purchasing power. The revised is the case when the inflation rate is low, investors would like to acquire more assets with stocks not exclusive. In essence, the era of high inflation rate negatively affects stock prices while low inflation rate boosts stock prices. Inflation is therefore expected to have a negative impact on the share prices and the stock exchange which in turn affect the listed commercial banks.

A study done on a sample of twelve Middle-Eastern and North African (MENA) countries to identify the main macroeconomic determinants of stock market development and the impact of financial intermediary development on stock market capitalization found that saving rate, financial intermediary (especially credit to private sector), stock market liquidity (especially the ratio of value traded to GDP) and the stabilization variable (inflation change) are the important determinants of stock market development, while income, as well as investment, do not prove to be significant.

According to Naceur et al, (2008), Stock markets and financial intermediaries are meant to complement each other rather than substitute for each other in the process of growth. The study recommends that, in order to promote stock market development in the region, it is important to encourage savings by appropriate incentives, to improve stock market liquidity, to develop financial intermediaries and to control inflation. In the study, the financial intermediary, saving rate, stock market liquidity and stabilization variable (change in inflation) significantly determine stock market development. On the contrary, investment and income proved to be insignificant.

### 2.3.2 Savings and Investments

The empirical evidence clearly shows that more developed countries have deeper and more efficient financial systems, including capital markets (Becket et al., 2003). Chuppe and Atkin (1992) describe the main effects of the Chilean pension reform on its capital markets. They highlight the contribution of pension reform on increase savings to the quality of regulation, improvements in corporate governance and transparency, increase specialization, innovation and the creation of new financial instruments, as well as secondary effects on the structure of the financial system and capital markets.

Chuppe and Atkin (1992) describe key changes in the Australian financial system in the 1990s through the introduction in 1991 of compulsory retirement savings which were used in the development of the capital markets through trading. In particular, the increase in financial assets has led to the development of markets in a wide range of securities, a proliferation of investment products and a more important role for institutional investors.

Munet al(2008) posit that stock market liberalization in terms of foreign direct investment (FDI) helps to attract a greater volume of FDI flow into Malaysia, provide portfolio diversification and enable individual firms to engage in specialized production with efficiency gain. They underscore the need for the Malaysian government to develop the domestic equity market as there was evidence that showed that a more developed
equity market may provide liquidity that lowers the cost of the foreign capital essential for development, thus, nations with greater development for equity markets tend to generate more domestic savings for economic growth. They proposed that in order to boost the confidence of foreigners to invest in the stock market, the Malaysian government ought to ensure the provision transparent and accurate data by the publicly listed companies. Securities Commission of Malaysia to tighten the regulation such as Capital Markets and Services Act 2007 to avoid incidents of inaccurate information. This will be a boost to protect the interest of the public by creating a fair and transparent condition for the domestic equity market to rebuild the confident of foreigner as well as domestic investors. A more developed stock market does provide an incentive for managers to make investment decisions that may affect firm value in the long run. In addition, they enlisted the government to help improve the stock market liquidity through the provision of additional capital market services like the derivative markets. This approach hastens access to capital by firms with a resultant increase in investments and economic growth. These markets provide a platform for foreign portfolio investors as well as domestic portfolio investors to diversify their portfolio in the domestic equity market (Mun et al, 2008).

2.3.3 Stock Market Liquidity
Empirical evidence clearly shows that stock market liquidity has a great impact on the development of emerging capital markets and of the commercial banks listed. NSE is considered as a more liquid and active market than those of its East African counterparts (Uganda and Tanzania) and in sub-Saharan Africa in general. However, by international standards, it is small, illiquid and volatile with regard to price and returns (IMF, 2003).

Investors in capital markets need exit opportunities, usually through secondary markets, in order to match the maturity of available securities to their own preferred portfolios. This requires the function of brokers and dealers willing to build inventories of financial instruments and, while these are frequently denounced as mere speculators, their function is essential (Chami, 2009). Quite often, the key capital market development barrier is insufficient liquidity (Hearn and Piesse 2009).

Chami (2009) demonstrates that liquidity providers are generally attracted to a critical mass of borrowers and lenders but equally they need a set of rules governing trading that are not unduly restrictive. They also benefit from trading mechanisms, including supporting clearing and settlement systems, which do not impose prohibitive transaction costs. To minimize learning costs, liquidity providers tend to require relatively large issue sizes and frequent and/or regular issuance or, alternatively, long maturities. Finally, liquidity providers rely on the existence of financial instruments whose risk profiles incorporate mostly or exclusively market risk as opposed to a plethora of different risks; alternatively, other instruments through which market risk can, at least in theory, be isolated (e.g. by hedging all other sources of risk). When market rules and trading conditions are much more benign for liquidity providers than for other investors, a market accumulates liquidity in good economic times, mostly from overseas, resulting in market volatility. Such excess liquidity during booms may be associated with the rapid loss of market. Liquidity is determined by factors such as globalization and market information and efficiency.

Mbaru (2003) explains in detail the aspect of globalization in capital markets. In his speech, he shows how the globalization of capital markets has affected the Nairobi Securities Exchange. According to him, globalization of financial markets means the lowering of national boundaries as barriers to the movement of money around the world. Globalization has made it possible for investors to move vast sums of capital across boundaries at minimal transaction costs and at high speed through electronic devices, thanks to the increased sophistication of the information technology that has gradually formed the universe into a global village.
3 Methodology

The researcher employed both analytical and descriptive research design based on the questionnaires. A descriptive research design is a technique for answering who, why and how questions (Cooper & Schindler, 2011). The descriptive research design was therefore used for the purposes of creating a detailed description of the variables of the study. The researcher used stratified sampling of probability sampling techniques for the study. This heavily relied on the nature of the study, where the population consisted of a number of heterogeneous subpopulations and the elements within the subpopulation were relatively homogenous compared to the population as a whole.

The researcher computed a sample of 60 percent of all employees working in the listed commercial banks located within the central business district of Nairobi since a moderately large number of items chosen at random from a large group are almost sure on the average to process the characteristics of the large group. The sampling frame is shown in the table below:

<table>
<thead>
<tr>
<th>Listed Commercial Banks</th>
<th>Number of Employees</th>
<th>Sample (60%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays Bank of Kenya</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>CFCStanbic Holdings</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Diamond Trust Bank Group</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Equity Bank Group</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>Housing Finance Company of Kenya</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>I&amp;M Holdings Limited</td>
<td>28</td>
<td>17</td>
</tr>
<tr>
<td>Kenya Commercial Bank Group</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>National Bank of Kenya</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>National Industrial Credit Bank</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Standard Chartered of Kenya</td>
<td>21</td>
<td>13</td>
</tr>
<tr>
<td>Cooperative Bank of Kenya</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>217</td>
<td>130</td>
</tr>
</tbody>
</table>

The data collected was processed through the use of Statistical Package for Social Sciences software version 22, prior to processing; the data collected was also sorted and then edited. The data analysis used both qualitative and quantitative analysis techniques due to the nature of the study. The analysis of data after tabulation was based on the computation of percentages, and applying well-defined statics formulae which helped in determining the existence of the relationship between the variables and the validity of the data after which conclusions were drawn. Descriptive statistics analysis was used which include measures of central tendency, measures of variability, and measures of frequency among others such as mean scores and inferential statistics which includes Pearson correlation and multiple regression after which it was presented using frequency distribution tables, percentages, pie charts, bar charts and related diagrams. The multiple regression model used in this study is as given below;

\[ FPICB = \beta_0 + \beta_1LRM + \beta_2 ORM + \beta_3 ERM + \epsilon \]

Where:-

FPCB = Dependent variable (Financial Performance of Commercial Banks)

\[ \beta_1MS = \text{Change in financial performance resulting from influence in macroeconomic stability} \]

\[ \beta_2SI = \text{Change in financial performance resulting from influence in savings and investments} \]

\[ \beta_3SML = \text{Change in financial performance resulting from influence in stock market liquidity} \]

\[ \beta_1 – \beta_5 = \text{Regression coefficient for each Independent variable} \]
\[ \beta_0 = \text{Constant or intercept (value of dependent variable when all independent variables are zero)} \]
\[ \varepsilon = \text{Stochastic Error Term}. \]

4 Findings
The study findings were presented on the determinants of financial performance of commercial banks listed on the Nairobi Securities Exchange. The analysis of data was based on the questionnaires.

4.1 Background Information
The study targeted a total of 130 respondents in collecting data; the researcher issued a total of 130 questionnaires in line with the 60% sample out of the total population. From the study, 81 out of the 130 sampled respondents filled in and returned the questionnaires making a response rate of 62%. This reasonable response rate was made a reality by way of researcher making visits to hand in and later collect the questionnaires. Based on the research findings, it was evident that respondents were comprised of different gender groups, professional qualifications not forgetting their diversity in their work experience.

4.2 Descriptive Analysis
This section presents the descriptive results on the effect of macroeconomic stability, savings and investments and stock market liquidity on the financial performance of listed commercial banks. The effect of the various variables of macroeconomic stability on the financial performance of commercial banks were measured according to their means and the standard deviation from the mean. The scale ranged from 1-5, where 1= strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree. The interpretation was done as follows: 1-1.4: Strongly Disagree; 1.5-2.4: Disagree; 2.5-3.4: Neutral; 3.5-4.4: Agree and 4.5 - 5.0: Strongly agree.

4.2.1 Macroeconomic Stability
From the results as shown in the table below, on the effect of consumer price inflation the respondents agreed with a mean of 3.74, on the effect of real GDP growth the respondents agreed with a mean of 4.21, on the effect of changes in measured unemployment the respondents agreed with a mean of 4.38, on fluctuations in BOP respondents agreed with a mean of 4.10, on the effect of changes in government finances the respondents agreed with a mean of 3.54, on volatility of interest rate policies respondents agreed with a mean of 4.67 and finally on the effect of stability of exchange rates the respondents agreed with a mean of 4.43. Hence from the analysis macroeconomic stability affects the financial performance of listed commercial banks with an average mean of 4.15.

<table>
<thead>
<tr>
<th></th>
<th>Consumer Price Inflation</th>
<th>Real GDP Growth</th>
<th>Changes in Measured Employment</th>
<th>changes in BOP</th>
<th>Changes in Government Finances</th>
<th>Changes in Interest Rate Policy</th>
<th>Stability of Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>3.74</td>
<td>4.21</td>
<td>4.38</td>
<td>4.10</td>
<td>3.54</td>
<td>4.67</td>
<td>4.43</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.667</td>
<td>.541</td>
<td>.489</td>
<td>.515</td>
<td>.501</td>
<td>.474</td>
<td>.569</td>
</tr>
</tbody>
</table>
4.2.2 Savings and Investments
From the results as shown in the table below, on the effect of the level of FDI the respondents remained neutral with a mean of 3.40, on the effect of the level of institutional investment the respondents remained neutral with a mean of 3.2, on the effect of the level of local investment respondent agreed with a mean of 4.19, on the effect of the level of income respondents agreed with a mean of 3.62, on the stock of capital the respondents agreed with a mean of 3.74 and on the effect of capital utilization the respondents agreed with a mean of 4.21. Hence from the analysis savings and investments affects the financial performance of listed commercial banks with an average mean of 3.73.

<table>
<thead>
<tr>
<th></th>
<th>Level of FDI</th>
<th>Level of Institutional Investment</th>
<th>Level of Local Investment</th>
<th>Level of Income</th>
<th>Stock of Capital</th>
<th>Capital Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

4.2.3 Stock Market Liquidity
From the results as shown in the table below, on the effect of the share prices respondents agreed with a mean of 4.38, on the effect of average daily trading volume the respondents agreed with a mean of 4.10, on the effect of transaction costs the respondents agreed with a mean of 3.54, on the effect of globalization the respondents agreed with a mean of 4.67, on the effect of market information efficiency the respondents agreed with a mean of 4.43 and finally on the effect of ease of market entrance the respondents agreed with a mean of 3.40. Hence from the analysis stock market liquidity affects the financial performance of listed commercial banks with an average mean of 4.0.

<table>
<thead>
<tr>
<th></th>
<th>Share Prices</th>
<th>Average Daily Trading Volume</th>
<th>Transaction Costs</th>
<th>Globalization</th>
<th>Market Information Efficiency</th>
<th>Ease of Market Entrance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean Std. Deviation</td>
<td>4.38 .489</td>
<td>4.10 .515</td>
<td>3.54 .501</td>
<td>4.67 .474</td>
<td>4.43 .569</td>
<td>3.40 .585</td>
</tr>
</tbody>
</table>

4.2.4 Financial Performance
From the results as shown in the table below, on effect of exchange rate the respondents agreed with a mean of 3.26, on the effect of savings the respondents agreed with a mean of 4.19, on the effect of liquidity the respondents agreed with a mean of 3.62, on the effect of interest rates the respondents agreed with a mean of 4.10, on the effect of inflation the respondents agreed with a mean of 3.69 and finally on the effect of investments the respondents agreed with a mean of 4.59.
Hence from the analysis, the financial performance of listed commercial banks is affected with an average mean of 3.91.
4.3 Correlation Analysis
The study conducted Pearson correlation analysis to establish whether there is a linear association between variables. A correlation matrix was utilized as an indicator of the linear association between the explanatory variables and to determine the strength of the model. The Pearson correlation coefficient (R) may take a range between +1 and -1 and quantifies the direction and strength of the linear association between the two variables. A measure of Zero (0) means there is no association between variables. From the table below, there was a weak positive correlation of 0.260 between macroeconomic stability and the financial performance of listed commercial banks. There was a strong positive correlation of 0.847 between savings and investments and the financial performance of listed commercial banks and there was a moderate positive correlation of 0.598 between stock market liquidity and the financial performance of listed commercial banks.

### Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Financial Performance</th>
<th>Macroeconomic Stability</th>
<th>Savings and Investments</th>
<th>Stock Market Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Performance</strong></td>
<td>1</td>
<td>.260*</td>
<td>.847**</td>
<td>.598*</td>
</tr>
<tr>
<td><strong>Macroeconomic Stability</strong></td>
<td>.260*</td>
<td>1</td>
<td>.533**</td>
<td>.501**</td>
</tr>
<tr>
<td><strong>Savings and Investments</strong></td>
<td>.847**</td>
<td>.533**</td>
<td>1</td>
<td>.859**</td>
</tr>
<tr>
<td><strong>Stock Market Liquidity</strong></td>
<td>.598**</td>
<td>.501**</td>
<td>.859**</td>
<td>1</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).**Correlation is significant at the 0.0001 level (2-tailed).

4.5 Regression Analysis
R-squared is a statistical measure of how close the data are to the fitted regression line. It is also known as the coefficient of determination, or the coefficient of multiple determination for multiple regression. It is the percentage of the response variable variation that is explained by a linear model. R-squared is always
between 0 and 100%: 0% indicates that the model explains none of the variability of the response data around its mean while 100% indicates that the model explains all the variability of the response data around its mean. In general, the higher the R-squared, the better the model fits the data.

From the table below, it shows that 82.2% of the financial performance of listed commercial banks is determined by the combination of macroeconomic stability, savings and investments and institutional quality hence it is only 17.8% of the performance that is determined by other factors not described in the study.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.907*</td>
<td>.822</td>
<td>.815</td>
<td>.141</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Stock Market Liquidity, Macroeconomic Stability, Savings and Investments

### 4.6 Analysis of Variance
The table below provides the results on the overall analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of financial performance. This was supported by an F statistics of 118.760 and the reported p-value (0.000) which was less than the conventional probability of 0.05 significance level.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>7.126</td>
<td>3</td>
<td>2.375</td>
<td>118.760</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1.540</td>
<td>77</td>
<td>.020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8.667</td>
<td>80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Stock Market Liquidity, Macroeconomic Stability, Saving and Investment

### 4.7 Coefficient
From the analysis in the table below, the following regression equation was established:

\[ Y = 4.758 + 0.491 X_1 + 1.6068 X_2 + 0.705X_3 \]

Where:

- Y = The dependent variable (Financial Performance of Commercial Banks)
- X_1 = Macroeconomic Stability
- X_2 = Savings and Investments
- X_3 = Stock Market Liquidity

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.758</td>
<td>.517</td>
<td></td>
<td>9.207</td>
</tr>
<tr>
<td></td>
<td>Macroeconomic Stability</td>
<td>.491</td>
<td>.117</td>
<td>.240</td>
</tr>
<tr>
<td></td>
<td>Savings and Investments</td>
<td>1.068</td>
<td>.075</td>
<td>1.367</td>
</tr>
<tr>
<td></td>
<td>Stock Market Liquidity</td>
<td>.705</td>
<td>.146</td>
<td>.456</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Financial Performance
5. Conclusions & Recommendations

5.1 Conclusions

The following conclusions can be drawn from the study:

When the economy is stable, it is highly likely that the capital market will perform better unlike when the economy is unstable and thus result to increased level of financial performance for listed commercial banks due to the low level of inflation which hinder development. Low and predictable rates of inflation are more likely to contribute to the stock market development and the development of listed commercial banks. Both domestic and foreign investors will be unwilling to invest in the stock market where there are expectations of high inflation. A well-developed capital market should increase savings and investments and efficiently allocate capital to productive investments which lead to an increase in the rate of economic growth and growth of listed commercial banks. The increase in financial assets has led to the development of markets in a wide range of securities, a proliferation of investment products and a more important role for institutional investors. High average daily trading volume, low transaction costs, high market information efficiency and ease of market entrance result to a highly liquid securities' market which in turn result to increased financial performance of the listed commercial banks.

5.2 Recommendations

A number of research recommendations spring from the findings of the study as shown below:

i. The government should establish sound macroeconomic policies, including monetary and fiscal policies to ensure the provision of a good banking system which will enhance rapid development of the financial market and encourage cross-listings and international integration with other capital markets. The government should also ensure low long-term interest rates through sound policies restricting interest rates on financial institutions in order to reflect stable future inflation expectations which would promote the economic development and the development of listed commercial banks.

ii. The government should provide tax Incentives including the provision of tax differential in favor of listed companies to enhance the dividend payout ratio which would promote savings and investments by individual and institutional investors. The government should also promote efficient democratic accountability to reduce political risk and enhance the viability of external finance which would promote equity investment and lead to capital market development and development of listed commercial banks.

iii. Finally, there should be a continuous education program by NSE for all parties involved in the investment environment to boost the level of information on capital markets with regards to investment securities and interpretation of financial statements of the listed companies in order to promote stock market liquidity.

6 Suggestions for Further Research

This study focused only on the listed commercial banks excluding other listed companies, further research should be done to incorporate the other listed companies to establish whether they are also affected by the macroeconomic and institutional factors. The study was also confined to macroeconomic and institutional factors, behavioral factors should also be considered and their effect on the listed companies.
REFERENCES


Masinde and Kibua (2004): To list or not to list? IPAR Discussion paper series.


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