

**RELATIONSHIP BETWEEN STOCK MARKET PERFORMANCE AND
ECONOMIC GROWTH IN KENYA**

BY

DEVIS MACHOGU MACHUKI

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DECLARATION

This research project is my original work and has not been submitted for any award in any other University.

Signed:

Date.....

Devis Machogu Machuki

D63/77307/2015

Supervisor

This project has been submitted for examination with my approval as University Supervisor.

Mr.Barasa: Lecturer, School of Business, University of Nairobi.

Sign:

Date:

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Thank you all.

DEDICATION

First I would like to dedicate this project to my almighty father in heaven for giving me his grace to start and complete this project. Secondly, I dedicate this project to my parents Meshack Nyasinga Machuki and Agnes Nyanchoka Machuki and my siblings; Rispa Magoma, Lilian Kwamboka, Lidiah Kerubo, Edwin Nyamweya and Raymond Obare. God bless you all.

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ABBREVIATIONS

CMA.....	Capital Markets Authority
CPI.....	Consumer Price Index
GDP.....	Gross Domestic Product
KNBS.....	Kenya National Bureau of statistics
LS.....	Number of listed securities
MC.....	Stock market capitalisation
NSE.....	Nairobi Securities Exchange
STO.....	Stock turnover ratio
TVR.....	Stock Market turnover ratio
TVT.....	Total Value of shares Traded
VAR.....	Vector Autoregressive Model

ABSTRACT

The general aim of the research was to determine the link between performance of stocks and growth of economy as measured by the GDP in Kenya. The research did an analysis of stock market factors like; stock market capitalization (MC), stock turnover ratio (STO), stock traded value (TVL), number of listed securities (LS) and stock market index (MI) against the gross domestic product (GDP) which was used as a proxy for economic growth. Studies done on African stock markets portray them to be petite and hindered by various factors like stock market illiquidity. These studies also point out that countries with well-developed financial markets have a better level of per capita income than those with less developed markets. This notion is also confirmed by various theories which state that there is a big role that financial markets (stock markets) play in boosting economic growth through provision of long-term capital for projects and risk diversification.

There has not been a lot of work done on this phenomenon to find out the link between Kenya's stock market performance and economic growth. The Nairobi stock exchange has managed to make progress in some of the factors believed to promote performance of the stock market which in turn leads to increased number of listed firms on the course and also the development of policies aimed at promoting stock market. The study intended to use stock market indicators such as stock market capitalization (MC), stock turnover ratio (STO), stock traded value (TVL), number of listed securities (LS) and stock market index (MI) to percentage of GDP from 1990-2015.

CHAPTER ONE:

INTRODUCTION

1.1 Background of the Study

The performance of the stock market is of immense significance for economic growth and development. According to Osamwony, (2013), “Stock market is a place for trading stocks, debentures, and bonds, where firms can raise funds for expansion. Its aim is to achieve allocative efficiency of available funds to be used in various sectors of the economy through extreme sensitive pricing instrument, make sure that available funds are availed to firms with high profitability. It can be said that stocks are apparatus used to boost the performance of the local financial institutions as well as the whole economy (Kenny & Moss, 1998). According to Yartey C.A & Adjasi, (2007), the foundation of the securities market in developing nations like Kenya is anticipated to increase savings in the local markets and boost the amount and superiority of savings in general.

Yartey & Adjasi (2007) further observed that the size of stock markets are the excellent forecaster of accumulation of funds, level of output, and GDP growth, Carlin, and Mayer (2003) recognized occurrence of a link between GDP and performance of stocks. Financial institutions provide a stage whereby exchange for financial tools like debentures. It assists to mobilize the capital from areas with excess to areas with deficient capital and is employed in profitable investment. It assists in the public segment and private sector to enlarge output by boosting investments and eventually boost economy (Kumo, 2009).

Relationship between growth of GDP and performance of stocks has received a huge research by various scholars, they concur that the function played by the performance of stocks should in boosting the GDP cannot go unnoticed. Performance of stocks is critical in performance of GDP as it has a crucial component in the theory put forward for increased output (Nazir, et al., 2010). Stock market is believed to be a key area whereby accumulation of funds can ease performance of GDP. Bhoyu, (2011), stocks in countries with low levels of income experts say they are increasing at an increasing rate; Nairobi securities exchange (NSE) is a huge industry making it the biggest stock market in East and Central Africa.

It is normally believed that huge decrease in stock prices reflects recession in the future and rising securities prices are foremost factors for boosting the GDP (Siong & Thing, 2008). The improbability rooted especially during the 2009 economic recession was hugely prompted by a huge slump in the prices of stocks as it was evident in the various securities markets across the world (Fuentes, 2010). The stock markets are usually linked to the growth of economy via their function as the resource for capital formation. Further, the growth of an economy is the medium for growth of securities market (Osamwony & Abudu 2013).

1.1.1 Securities Market Development

Osamwony (2013), “the stock market is a place for trading financial securities and also where one can raise long-term capital”. Stock markets are usually viewed as tools of operations of the domestic financial institutions as a whole (Kenny & Moss, 1998).

According to Simiyu (1992), underpins the significance of obtaining an aim measurement basis for the performance of the securities market. There has been no solitary conclusion on the measurement foundation that should be used, most scholars coincide that the use of securities market index is credible given that it assists to review the performance of the securities market over a period of time. He rather proposes the use of a weighted securities market index which reflects the stock capitalization of securities (Nyang'oro, 2012).

The Nairobi securities exchange (NSE, 2008) which was founded in 1954 as an association of stock brokers with its main aim to ease mobilization of resources to supply funds intended to be used in future investment projects. The Capital Markets Authority (CMA, 2011), it's a body which regulates stock market and provides scrutiny for their compliance. The stock market has always been in the forefront lobbying the government to create favorable policies to ease economic growth and the private sector to boost growth of the stock market performance (Ngugi, 2005). The Central Depository and Settlement Corporation (CDSC) is another body which provides clearing, settlement and delivery of services. It also oversees the conduct of Central Depository Agents (CDSC, 2004). These regulatory institutions are meant to maintain a healthy stock market performance that allows allocative efficiency to occur freely in accordance with the market forces. The period between 2004 and 2011 witnessed an improved trading activities and stock market improved as well from stock market capitalization of 250 billion Kenya shillings in 2004 to achieve a 1.9trillion Kenya shillings by the end of the year 2014. The volume of traded shares grew from 593million share in 2004 to a high of 6.33 billion shares in the year 2009 before falling to 5.01 billion by end of 2014 (NSE, 2014).

1.1.2 Economic Growth

An economic growth is viewed as amplifier in the welfare of the economy which arises from the improved quality of services and quantity of goods provided by the economy over a period of time (Vakidis, 2009). The economic growth of Kenya has been fluctuating since 1963. Kenya's economic growth started on a high note in the early years of independence (Henry, 2000). This was mainly due to public investment, support of small scale agri-business due to subsidies for small private agricultural investments. There was significant economic slump from the 1970's to 2004 GDP growth rate was averaging 10% (KNBS, 2005). The worst years in terms of GDP growth were 1974 to 1975, 1978, 1981, and 1990 to 1999, 2000-2003 and 2008 (World Bank, 2008). This performance can be explained by from both the internal and external factors. These years were marked by the national government of Kenya pursuing the import substitution (IS) policy and this was the time characterized by high oil prices which made the countries manufacturing sector disadvantaged as it became uncompetitive (Nyang'oro, 2012). In addition, in the early 1990s, the Government failure to sustain prudent macroeconomic policies, the reforms of various institutions had started, had decreased and there was the governance problem as well. In the year 1991, the government of Kenya suspended donor aid to Kenya (Akingunola, 2013).

Economic performance improved in the late 1990's because of the country started a major economic reform programme (McKinnon, 1973). The IMF played a major part in these reforms and the World Bank as well. Kenya did away the price control policies, eliminated foreign exchange controls, privatized institutions, mainstreamed the civil service and embarked on fiscal and monetary policies. Unpleasant weather conditions are other factors have had negative effects

on the the countrie's macroeconomic performance and political instability (Henry & Chari, 2002).

1.1.3 Stock Market Performance and Economic Growth

The stock market is viewed as institution which offers a platform for efficient allocation of capital, (Howells and Keith, 2000). They further observed that borrower' access to funds which they in turn use to finance long term projects while the savers utilise the stock markets to invest their surplus funds. Stock market offers both private firms and the public owned ones the opportunity for raising funds which are used to finance long-term investments in the country. Vakidis, (2009) was pragmatic that economic performance as measured by GDP increases when sufficient capital is available in the market which in turn can be borrowed by both private corporations and the government for investment hence boosting economic growth and development.

Gitobu, (2000) observed that the stock market is the intermediary between borrowers and savers for economic growth and development. They further encouraged those with surplus funds to invest their funds in the stock market which provide a better rate of return compared to the commercial banks. The stock market also provides an attractive capital to borrowers as Equity is preferred to loans which are repaid with higher interests. Charkravarty, (2005) argues that stock market is better compared to commercial banks, as one does not require collateral for funds accessed stock market which offers flexible financing options like ordinary stocks, preference stocks and rates of borrowing are comparatively low to those charged by commercial banks. Performance of the stock market is affected by numerous factors especially government

activities, availability of similar investment assets, political instability as well as economic performance which causes them to fluctuate from time to time (Gitobu, 2000).

Relationship between stock market performance and economic growth is ambiguous one. Donwa, P., & Odia, J. (2010) argues that well developed stock markets boosts savings although from a theoretical perspective. Savings have been established to be positively related to the growth of GDP (Mauro, 2000), he reveals that stock market form a foundation for investment through savings. Savings are equal to investments, which leads to change in capital stock hence economic growth.

Sustaining a stock market which is performing well drives growth in the economy by easing flow of finances from savers to borrowers (Chuan, 2005). This however, comes after addressing various issues which hinder stock market performance especially in developing countries like Kenya. Some of these challenges include; political instability a good example being the post election violence, economic recession and frail corporate governance practices in some of the market intermediaries and outdated policies which hinder stock market performance.

The need to determine the relationship between growth in the economy and stock market performance in Kenya informed my research. Reasoning behind this was that to have a well performing stock market, there must be economic growth and thus, investors must be undertaking expansionary strategies requiring extra financing from the stock market whereas savers are believed to be having surplus capital for investment. Strong stock market performance especially in the periods of high economic growth is crucial in mending the allocation problem

which ensures that borrowers access the available surplus funds from savers. The relationship between performance of stock market and growth in the economy in Kenya forms heart for this research.

1.1.4 The Stock Market Performance and Economic Growth in Kenya

Kenya's economy has been experiencing a continued mixed economic growth over a period. In 2007, the economy grew by 6.8%, 2008 by 2.7%, 2009 by 5.8%, 2010 by 8.6% and 2011 by 6.1%, 2012 by 4.6, 2013 by 5.7, 2014 by 5.3 and 2015 by 6.2 (KNBS, 2015). This has in turn led to the growth economic growth in various segments of the financial system and boosted country's output as well. Key sectors of the economy such as agriculture & forestry grew by 4.1%, wholesale and retail trade by 6.7%, communication and transport by 3.8%, manufacturing by 3.1%, financial institutions by 6.5% and construction by 4.8% as at the year 2012 (KNBS, 2012). It further revealed that different sectors alike to the economic growth have grown heterogeneously meaning the growth is influenced by other factors other than economic growth. The major barriers to smooth economic growth have been; inflation and political instability especially the violence experienced during or after election periods like the post election violence. Furthermore, the global financial crisis experienced in recent times and the volatility oil market due to wars in the middle east countries had an effect on the economy as reflected by the inflation levels 14% in 2011 and 9.4% in 2012 (KNBS, 2012).

Likewise, in the recent times the stock market has experienced growth. This is evidence looking at the increase in market capitalization by 46.5% from 868 billion Kenya shillings in 2011 to 1,272 billion Kenya shillings in December 2012. Furthermore, in the year 2013 the market

capitalization increased to 1,774.53 billion Kenya shillings (NSE, 2012). On a different aspect, the NSE 20 Share Index increased by 30% to 4,133 from previous 3,205 in December 2011. By August 2013, it rose to 4,851.54. It is important to see that while the Kenyan economy is growing the NSE 20 Share Index is growing as well and as to whether the two variables are correlated is a question the study sought to answer (NSE, 2013). The period between 2004 and 2014 saw an increased activity in trading and stock Market Capitalization of about 250 billion Kenya shillings in 2004 to 1.9trillion Kenya shillings in November 2014. The volume of shares traded increased from 593million in the year 2004 to a high 6.33 billion shares traded in 2009 before experiencing some slump to 5.01 billion shares by the end of 2014.

1.2 Research Problem

Stock market performance has been a topic of interest from various scholars such as: Demirguc-Kunt (2009) and Chen *et al* [2011]. For example, in the 1970's, a variety of studies; (Shaw, (1971) and (McKinnon, 1979) in their various studies revealed stock market performance had high correlation with per capital income. This is a clear indication that the stock markets are vital in the progression of macroeconomic factors. This comes clear whereby with a well performing stock market, investors both public and private are offered the needed funds to finance their long-term projects (Kumo, 2009). For that reason, where stock market are well developed boosts savings and proficient allocation of capital to investments and this leads to an increase in the rate of economic growth (Osaze, 2007).

From empirical evidence, in a the local context, Nkukuu (2012) in her study to find out the relationship between government budget balance and stock market return mentioned there is link

between the growth of economy and profitability of companies listed in the stock market which occurs due to continuous rate of economic growth that had been experienced in the recent times. She further revealed that there are numerous macroeconomic factors which exert pressure on the securities market performance. This gives an ambiguous likelihood of the findings as to whether the performance of stocks is positively or negatively correlated to Kenya's growth of economy. In addition, Aduda et al (2012), Owiti (2012), Murungi (2002) and Ndege (2012) did concur in their separate studies that macroeconomic factors can lead to two possibilities, a positive or a negative relationship with the stock market performance. Therefore, macroeconomic factors which lead to growth of GDP represent a significant basis for the study of relationship between stocks performance to GDP.

In international studies, Atje and Jovanovic (1993) revealed a strong relation strong relation between GDP performance and securities trading value. Caporale and Spagnolo (2011) further noted that stocks performance in middle and north-east European Countries effected growth of GDP in those countries. It's believed this is the Kenyan case but (Arestis, et al. 2001), cautions that with the lack of the relevant data on developing countries especially the sub Saharan Africa, no conclusion can be made yet on whether the stock performance is positively related to economic growth in these countries.

Many studies pertaining to the stock market have mainly focused on understanding policies to boost stock markets profitability mainly through uphold political stability (Kithinji and Ngugi. 2010) and the effect of macroeconomic factors mainly interest rates on the stock market (Gekone, 2011) and (Kiptoo, 2010). However, the previous studies have not viewed the stock's

performance as the engine for the growth of GDP which would cause policy makers to turn their focus on the stock market performance as many past studies have mainly concentrated on the banking sector. There has been little study on the subject to specifically underpin the relationship thus; this study sought to fill that literature gap; Relationship between stock performance and GDP performance in Kenya.

1.3 Objective of the Study

The study sought to determine whether stock market performance leads to economic growth in Kenya.

1.4 Significance of the Study

According to the recommendations given by Olweny and Kimani (2011), Owiti (2012) and Wahome (2010), government can use the findings from this study to make sound policies which in turn would boost stock market performance. The study also provides some insight on significance of savings in the country and how that can go towards promoting investments and as a result economic growth.

The study will also be pertinent to the investors as earlier Owiti (2012) and Wahome (2010) found relationship between stocks performance and growth of GDP. It means that savers will be able to forecast stock prices by looking at the economic growth rate prevailing in the country. Investors will further gain from the fact that they can forecast economic growth by looking at the performance of the stock market as confirmed by the studies above.

This study will also be significant to economists who can use it to forecast economic performance by looking at the performance of the NSE index with the intention of determining the per capita income of Kenya in the future which can be used as proxy to a level of living standards of the citizens. Finally, the Study will be of huge importance to empirical work on the topic as not many scholars have concentrated on the relation between Stocks performance and growth in GDP in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review highlights theories and work that has been carried out by other scholars in the past concerning the stock market performance in Kenya in order to gain an understanding on its relation to economic growth. The researcher will also bring forth the study gap in the topic under study in spite of the past studies. This chapter reviewed some of the literature on stock market performance especially those of specific value to the topic under study.

2.2 Theoretical Review

There are a number of theories explaining the stock market performance, its role as financial intermediation, stock market liquidity, capital formation, price stability, economic growth and creation of employment.

2.2.1. Neoclassical Theory: The Endogenous Growth Theory

In endogenous growth theory, it views economic growth to be emanating from internal forces rather than external forces; this implies that households investing in human capital and innovation as the key to growth in GDP (Gwilym, 2008). Neoclassical theory mainly focuses on positive externalities from knowledge based economy which ultimately leads to economic growth and development. This leads to contrasting point of view from the exogenous growth model that insists on the role of technological progress as a scientific exogenous process that is not determined by economic factors. Endogenous growth model acknowledges that capital stock is not subject to diminishing returns (Fry, 1997).

This thus means growth is positively related to the investment. It states that in the long run, economic growth will depend on the policies taken by different stock market stakeholders. This means that policies that embrace openness, fair competition and innovation will eventually promote economic growth (Aghion and Howitt, 1998).

The endogenous growth, Caporale et al (2004) argued that, a number of past theoretical studies center their attention to the link between endogenous growth and stock performance. However, Bencivenga and Smith (1991) and Levine (1997) were the pioneers to give a suggestion that endogenous growth model should look to recognize through which ways performance by the stock lead to GDP growth in the long-run. The studies above emphasized financial markets play a key role in the diversification of agents' liquidity and risk on the investments in order to induce more people to save into profitable investment and thus help to avoid the early withdrawal of their invested capital for the investments in the long run. Thus, presence of stock markets implies that additional funds are set aside for investments in long-term, this boosts rate of growth in the economy (Bencivenga and Smith, 1991); (Levine, 1997).

2.2.2. Gurley and Shaw Hypothesis

Gurley and Shaw (1955) noted that it is the non-bank financial institutions that provide liquidity and safety to financial assets and help in shift funds from the lenders who have surplus funds to the borrowers for investment purposes. Therefore, the amount of financial variables boosts economic growth through as it induces individuals to purchase more financial assets. The buying

of primary stocks from the investors and selling them to the potential savers eases the access of credit to the borrowers and the interest rates in the economy (Kumo, 2009).

2.3 Determinants of Economic Growth

According to (Rodrik, 2003) the neoclassical model is often preferred by many scholars because of its ease in finding the key factors for growth in GDP. Moreover, those advocating for the endogenous growth models commend them for their ability to incorporate policy, institutional factors and technological progress as the main determinants of economic growth (Barro, 1996).

The classical economists also insist on the importance of savings to the country according to (Levine and Renelt, 1992) and (Sala-i-M. (1997) recognize savings and investment as major factors. Private venture is often seen as the driver of economic progress, while public investment provides the required infrastructure for the economy to grow. Howells and Keith (2000) noted both private and public investment have are close relationship, as public venture may case provision of infrastructure for the private sector or crowd out by increasing capital cost to the private investors. Public investment has either positive or negative affects private investment (Sala-i-Martin, 2003). Communal savings in human capital lead to formation of positive spill overs which develop the performance of individual firms. As a result, it clearly reveals that there exists a positive correlation linking savings and growth in GDP (Barro, 1991, 1996, 2003; Artadi and Sala-i-Martin, 2003).

Foreign aid is also an aspect believed to have a positive relation with economic growth. It relaxes any constraint that may arise on the economy (Bacha, 1990). The limitation on savings occur as

is the probable scenario in countries with low GDP per capita, these countries have low savings which deficient to congregate investments in the public sector; it plays a significant role as it relaxes the domestic savings constraint. Kuthurimu (2010) revealed that constraints arising from the foreign exchange due to the need for imported capital goods or services and earnings from foreign exchange may be too low; aid falls in this category of foreign exchange whereby high levels of imports are allowed into the country. The constraints arising from fiscal decisions have impact on savings; foreign aid helps in financing public investment thus discouraging the government from raising revenue to finance a deficit budget thus aid comes in handy to relax this constraint. However, Chenery and Strout (1966) point out that in less developed countries, foreign aid of technological support can calm down this limitation and boost economic performance. Thus from the above discussion, we can conclude that aid has a direct relation to investment which leads to economic growth (Hjertholm *et al*, 2000). Gomanee *et al* (2005) in their study revealed foreign aid has positive impact on GDP growth especially in developing countries through providing funds to public investments. Elbadawi (1999) argues that foreign aid in East African countries has a negative effect on exchange rate as it leads to its appreciation making the exports more expensive and thus hampering growth of GDP.

Export is also a factor that has impact private investment hence growth in GDP. Endogeneous theory, countries with open trade experience many advantages compared to closed trade in terms of efficiency gains due to labour specialisation and increased competition from international companies; there is also technological transfer; economies of scale also due to business expansion, and also gain of knowledge through globalisation (Piazolo, 1995; Zhang and Zou, 1995; Harrison, 1996; Frankel and Romer, 1999). Furthermore, increased competitiveness which

occurs due to this openness may negatively affect performance of domestic companies or even kill them (Harrison, 1996). A lot of research has been done on this field tends to concentrate on exports, imports represent imported technology and acts as an intermediary goods and even at times used for investment purposes thus boosting economic growth.

Schundein & Funke, (2001) noted that there are other key determinants of economic growth which have both positive and negative effects are; technological progression, government expenditure, taxation, population growth, inflation, governance and democracy.

2.4 Empirical Review

Graff (2003) offered empirical evidence revealing that the finance-growth model was suitable to deal with finance matters pertaining to growth revealing that the relation mainly from the stocks to growth in GDP with small evidence of their correlation. Caporale et al (2004) carried out correlation study, investigating the causal relation between domestic capital, commercial bank performance and economic growth and did find a very little evidence of correlation between the variables. They also examined their correlation and established relationship between the two variables; and revealed that stock market performance can be applied as a measure for GDP performance.

Calderon and Liu (2003), studying the whether there is a bivariate or univariate relationship between stock market performance and economic growth, they revealed that stock development leads to growth in GDP, they also observed that there was a stronger relation especially in countries with high capital growth and output as well. Rajan and Zingales, (1998) highlight that financial performance can be employed in predicting GDP growth; as long as the stocks show

the current value of prospective growth in economic factors and other factors which boost economic growth and the economy is dependent on external factors for financing.

Stock market capitalization is computed by finding the product of stock price and the total number of outstanding shares. Brasoveanu et al (2008) regressed the findings and attested that stock capitalization and GDP growth have a strong relationship as is the case with Romania, a strong suggestion that the stock composition is comparable to the economic growth as measured by the GDP. Nurudeen (2009) did an analysis to establish the relationship between market stock Cap and GDP; he found a strong positive relation between the two variables as well as the relation between GDP and internal savings. Esang & Bassey, (2009) did a multiple regression analysis recognized factors such as rate of interest and stock capitalization is important stock variables which are able of boosting GDP. Levine and Zervos (1998) observed that stock capitalization does not have a high relationship with variables such as growth of capital, development of output. He further observed that it's not only the volatility of the market that affect the performance but also the size of the market as well. These results concur with this research as it is the technological advancement that has impact on the growth of GDP rather than the listing of the securities in the stock market.

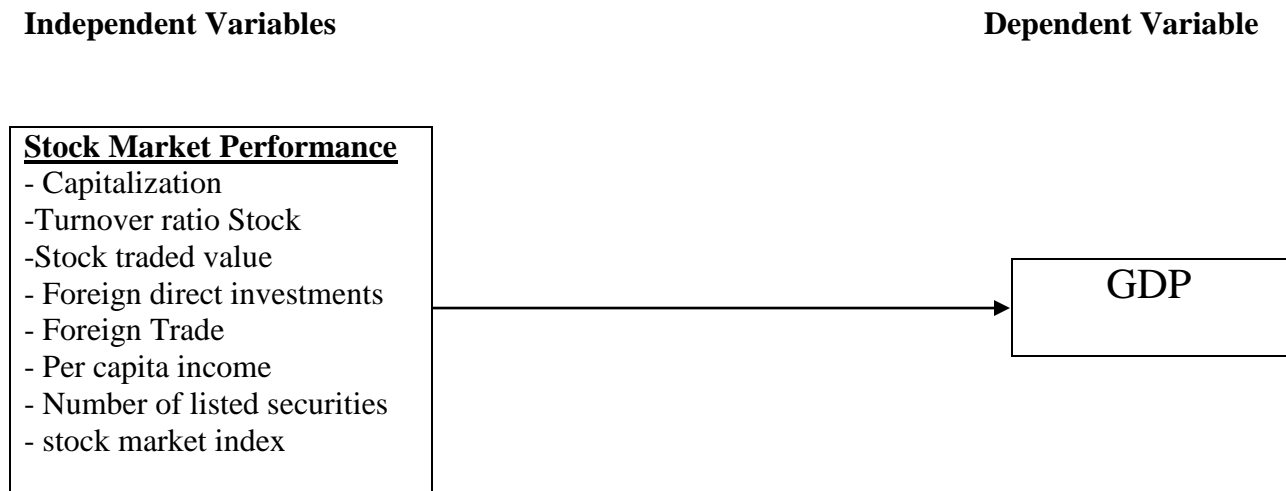
Stock liquidity implies the easiness in which an individual is able to exchange economic property in the securities market, without affecting the prices negatively (Gwilym, 2008). This variable entails the aspect of elasticity and buoyancy in the stock markets. More liquid stocks are better as the participants in the stock market are given chance to take more risk in the stock market as they can easily liquidate their assets. Economists for long have been debating on whether stock

liquidity has any effect on the performance of stock market and there has been ambiguity in their findings. Levine and Zervos (1998) in their study observed that stock liquidity is a key forecaster of GDP performance.

Mwaura, Ngugi, & Njenga (2000) revealed that return on stocks has a huge effect on the amount of daily turnover in the stocks and many savers are attracted to participate in the market, while taxation acts as an important facilitator of trading securities especially if the tax amount is relatively low it encourages the savers to invest in the market because of the high financial gain. Zhu, Ash, & Pollin (2002) replicated the Levine and Zervos (1998) study and revealed the notion a country operating in a highly liquid markets experience high GDP performance is not always the case. Zhu et al (2002) observed that most countries operating under political stability help in facilitating flow of funds to vital areas of the economy hence boosting savings which are directly proportional to investments. Therefore, Zhu et al (2002) observed the major factor behind GDP performance and stock performance is the unique financial system (Zhu et al., 2002).

2.5 Conceptual Framework

Fig 2.1: Conceptual Framework



Source: Author (2016)

The study proposed that economic growth in Kenya is determined by stock market performance; stock capitalisation (X_1), stock turnover ratio(X_2) and stock traded volume(X_3) as captured in figure 2.1. Foreign direct investments(X_4), foreign trade X_5), Per capita income (X_6), Number of listed securities (X_7) and stock market index (X_8).

2.6 Summary of Literature Review

The link between activity of stocks and GDP performance in Kenya according to many scholars is ambiguous as they can't seem to all agree on whether there exists a relationship between the two variables even though this is aided by the perception that stock market factors like market liquidity, capital mobilization and risk diversification. These factors together are believed to enhance stock market performance, which eventually contribute to economic growth. The correlation between the two variables; the stock market performance and economic growth,

varies with various countries. The relationship has been found to be massive on the developing nations as compared to the developed nations. Furthermore, the relationship between the two variables is also dependent on the time series. Most researchers have concluded that the relationship is only realised in the long run and can only be important if the economy can be able to keep track of their data on annual basis.

Finally, there exists a gap in the local scenario as to whether there is any relation between the two variables. Many scholars in their various studies give an ambiguous conclusion of an existence of relationship some positive others negative. Therefore, this study will help to find out whether there is relation between the stock performances boosts economic growth in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives a description of the research methodology that was used in the study. According to Saunders, Philip and Adrian (2009), “research methods are techniques and procedures used to obtain and analyze data”. Hence, this chapter contains the Research Design, Empirical model, and measurement of variables, study Population, Data Collection Instruments, Data Analysis Techniques and Presentation.

3.2 Research Design

The study adopted a test of causation in order to analyse the existence of the relationship between Stock market performance and economic growth in Kenya over a twenty five year period from 1990-2015. The reason for this method is that in business, the relationship is often ambiguous and there is therefore need to develop some understanding on the relationship under the study so as to better explain, predict and control the variables under study (Cooper and Pamela, 2006). The significance the study is to assist investors, government and all other stakeholders involved in making decisions on policy directions and predictions on both the stock market and economy using the variables under study.

3.3 Data Collection

Secondary data was collected for the period 1990-2015 and the sources of the data will be from various economic surveys from Kenya National Bureau of statistics (KNBS), Nairobi Securities Exchange (NSE), Capital Markets Authority (CMA) and the World Bank statistics.

3.4 Data Analysis

In order to analyze the correlations between GDP performance and stock performance, we used SPSS. Quantitative data analysis methods were used in the analysis of this study which included descriptive statistics and inferential statistics. Descriptive statistics included frequencies, measures of central tendencies (mean, medium or mode) and measures of dispersion (standard deviation, range and variance. Inferential statistics used included correlation, regression and analysis of variance to find out the relationship of the variables.

The data was presented by utilizing pie-charts, figures and tables which were not only useful but also effective in exhibiting the results of the research. Graphs and tables were utilized to present the data analyzed.

3.4.1 Conceptual model

The general econometric model used in the study is as follows:

$$Y = f(x)$$

Where:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8)$$

Y - Gross Domestic Product

X₁- stock capitalization

X₂- stock turnover ratio

X₃- stock traded value

X₄- Foreign Direct Investment (FDI)

X₅- Foreign Trade

X₆- Per capita income

X₇- Number of Listed Securities

X₈- stock market index

3.4.2 Empirical model

Thus the general econometric model:

$$y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8$$

Where:

Y - Gross Domestic Product

α_0 - constant

β_1 - β_8 - co-efficients

X₁- stock capitalization

X₂- stock turnover ratio

X₃- stock traded value

X₄- Foreign Direct Investment (FDI)

X₅- Foreign Trade

X₆- Per capita income

X₇- Number of listed securities

X₈- stock market index

3.5 Measurement of Variables

Variable	Measurement
Gross Domestic Product (GDP)	GDP is the total valuation of goods produced or services provided in a certain country, whereby, the real growth rate being used as a measure of the economic growth.
Stock Market performance	A measure of stock market performance is the market capitalization as a proportion (GDP) and stock market turnover ratio.
Stock market capitalization	It's the product of the stock price and the total number of outstanding shares.
Stock turnover ratio	Measures the value of total shares traded in the securities market as a percentage of stock market capitalisation
Value of shares traded	Is total value of shares traded on the securities market exchange as a proportion of GDP
Foreign Direct Investments	It's the value of the foreign direct investments at a specified time, usually by the year end. The inflow of FDI's is the level of foreign investors' equity and total loans to domestic companies in the domestic economy.
Foreign Trade	Foreign trade is determined through balance of trade by subtracting the value of a country's imports from the value of its exports.
Per capita income	It's measured by total income in the economy as a proportion of total population.
Number of listed securities	Total number of companies listed in stock market
Market index	Prices of selected stocks usually a weighted average.

CHAPTER FOUR: ANALYSIS AND DISCUSSING

4.1: Results

The main objective of the study was to determine whether stock market performance leads to economic growth in Kenya. To respond to this objective, the study did analysis of: stock market capitalisation, stock traded turnover ratio, and stock traded total value, number of listed securities, stock market index, foreign direct investments and foreign trade with Gross domestic product (GDP).

Table 1: Stock market performance and economic growth indicators for Kenya from 1990 to 2015

Year	GDP Growth (Annual %)	MC (% of GDP)	Stock traded turnover ratio	TVL (% of GDP)	No. of LS	MI	GDP Per capita growth	FDI'S, net inflows(% of GDP)	Foreign trade (% of GDP)
1990	4.2	5.3	2.1	0.1	54	915	0.735	0.666	25.693
1991	1.4	5.6	2.4	0.1	53	958	-1.859	0.231	27.042
1992	-0.8	7.7	2.2	0.1	57	1167	-3.953	0.078	26.26
1993	0.4	18.4	1.6	0.2	56	2514	-2.736	2.532	38.904
1994	2.6	43.1	3	0.9	56	4559	-0.389	0.104	37.04
1995	4.4	20.8	2.6	0.7	56	3469	1.489	0.467	32.592
1996	4.1	15.3	3.6	0.6	56	3114	1.395	0.902	25.201
1997	0.5	13.9	5.8	0.8	58	3115	-2.055	0.473	22.686
1998	3.3	14.4	4.1	0.6	58	2962	0.766	0.188	20.169
1999	2.3	10.9	4.3	0.6	57	2303	-0.182	0.403	20.833
2000	0.6	10.1	3.5	0.4	57	1913	-1.876	0.873	21.588
2001	3.8	8.1	3.4	0.3	57	1355	1.183	0.041	22.932

2002	0.5	10.8	2.9	0.3	57	1087	-2.002	0.21	24.898
2003	2.9	28	7.5	1.4	51	1935	0.297	0.548	24.087
2004	5.1	24.2	8.5	2.1	47	2640	2.399	0.286	26.61
2005	5.9	34.2	9.8	2.7	47	3972	3.176	0.113	28.509
2006	6.3	50.6	14.6	5.8	51	4260	3.723	0.196	22.985
2007	7	49.3	10.6	4.9	51	5746	4.084	2.281	21.919
2008	1.6	36.4	11.8	4.8	53	5185	-2.373	0.266	22.674
2009	2.6	36.6	4.6	1.7	55	3294	0.609	0.314	20.033
2010	8.4	44.9	5.5	1.9	55	3379	5.588	0.445	20.657
2011	6.1	30.3	8.9	2.2	58	3163	3.315	0.333	21.626
2012	4.6	36.3	8.1	2.0	60	4323	1.795	0.324	19.817
2013	5.7	37.9	7.9	3.3	61	4259	2.912	0.675	18.149
2014	5.3	36.7	7.5	2.9	65	4178	2.583	1.538	16.924
2015	6.2	41.8	8.3	3.1	64	4399	2.927	2.267	15.769

Source: NSE annual reports and accounts, KNBS annual economic surveys, various years

4.2 Analysis of the Regression Results:

Regression results were found through the Ordinary Least Square (OLS) technique. Results are in Table 2 below on the correlation between stock performance and GDP performance in Kenya.

Table 2: Relationship between stock market performance and economic growth in Kenya

Dependent Variable	Independent Variables	Estimated Coefficients	Standard errors	t-statistic	Probability value
GDP	C	17.5711	9.1904	1.9119	0.0740
	MC	0.0413	0.0403	1.0346	0.3213
	LS	-0.2893	0.1586	-1.8245	0.0868
	STO	0.0318	0.1847	0.1720	0.8656

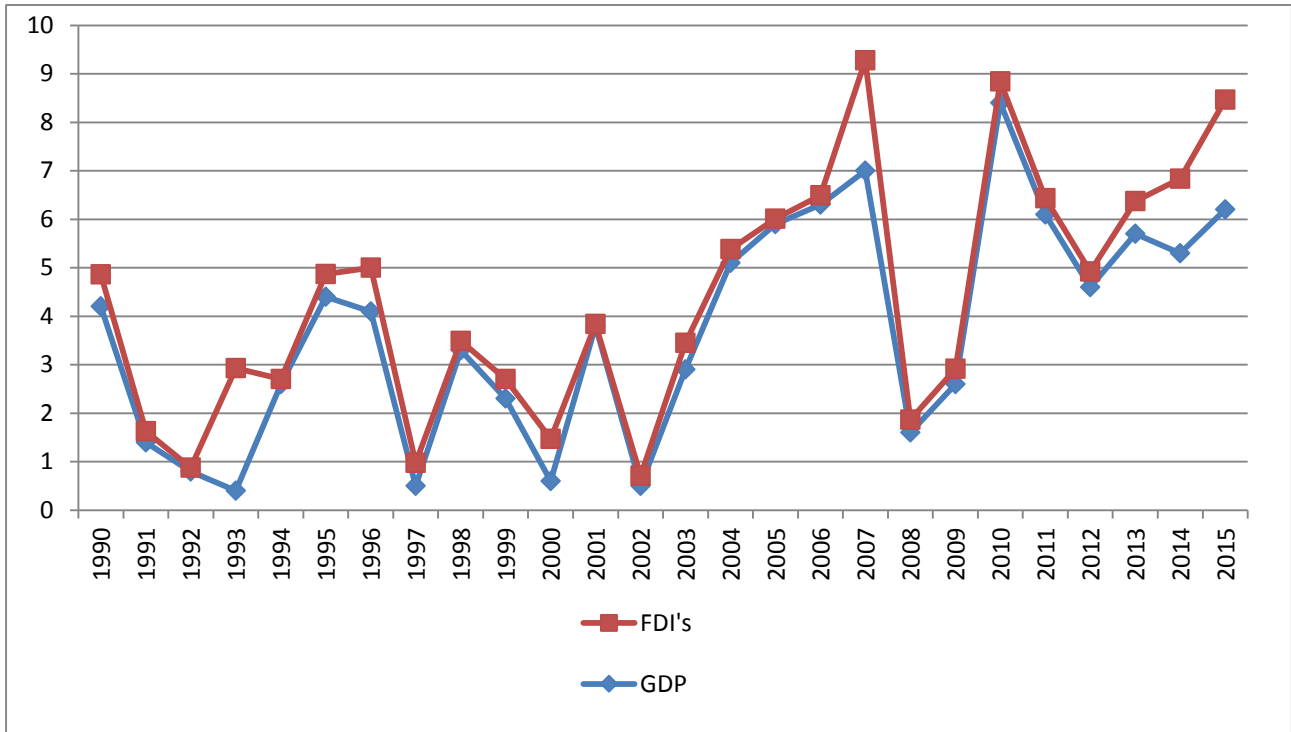
$$R^2 = 0.48, R^2 = 0.38, DW \text{ stat.} = 1.87, F\text{-stat.} = 4.8$$

The regression results observed that 48% of the deviation in GDP can be clarified by these variables: number of listed securities (LS), stock market capitalization (MC) and stock turnover ratio (STO). From this point we can see the weakness of the model in examining whether there is link between performance of stocks and GDP growth in Kenya. The statement above is further enriched by the low value of F-statistic of 4.8 which at 1% significance level is not significant but only at 5%. Nonetheless, according to the t-statistics results; MC, STO and LS which had values of 1.03, 0.18 and -1.72 that the results were not significant at 5% level. The signs show a positive MC and STO while LS is negative which reveals that LS has a negative effect on GDP and LS but do not conform to the expectations though there is no presence of autocorrelation. The result therefore shows that in the Kenyan economy, stock market has not significantly contributed to the growth of economy. This drives to the call on the stakeholders to increase their attempts to develop the stock market performance. In general, the regression analysis results revealed that the stock market performance does not have any relation to economic growth.

4.3: Descriptive statistics

The figure below schematizes the trends of the foreign direct investments FDI's, net inflows and gross domestic product in Kenya from the year 1990 to 2015 using data from table 1. It shows the trends and relationship between the two variables.

Figure 4.1: FDI's and GDP in Kenya

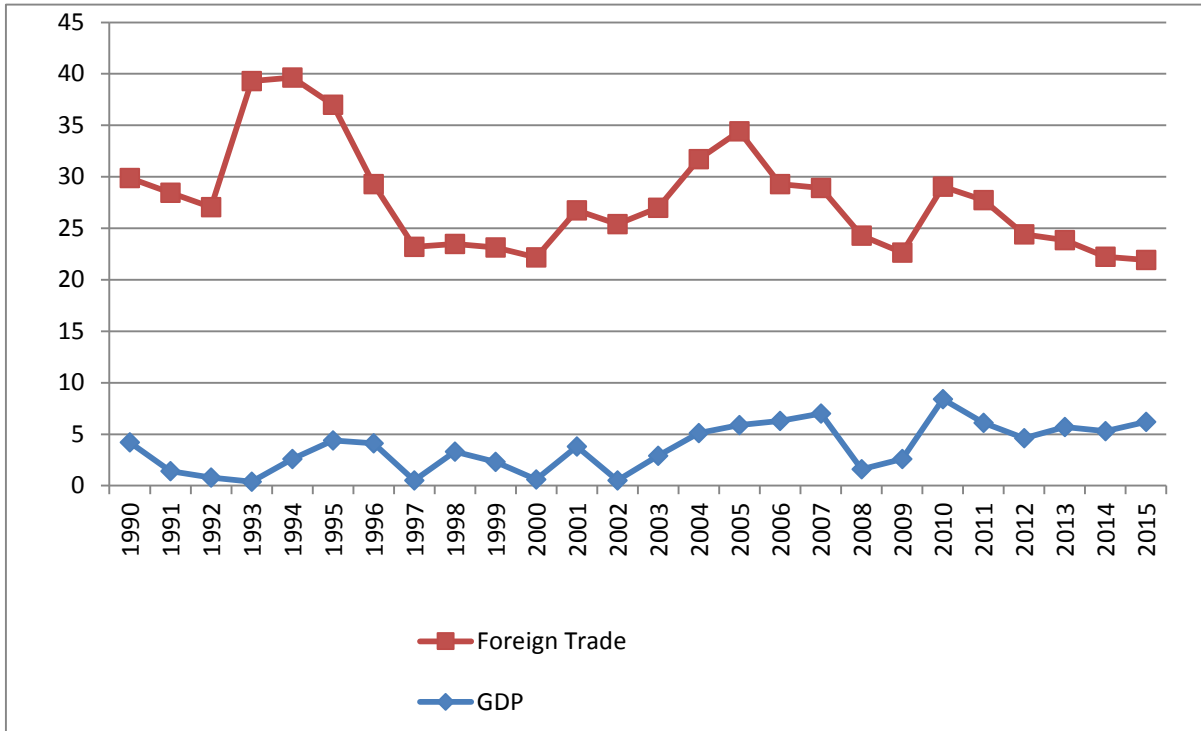


Source: NSE annual reports and accounts, KNBS annual economic surveys, various years

The trends depicted by figure 4.1 above shows different variations in both FDI's and GDP in Kenya. In majority of times, it shows a direct relationship between the two variables whereby, as the FDI's increases, there is also an increase in GDP and vice versa. The figure reveals that both variables were highest in the year 2007, the year preceding the global financial crisis whilst 2010 was the year when most countries started gaining some amount of macroeconomic stability from the effects of the global financial crisis. As can be observed from figure 4.1 above, FDI's and GDP were higher in the year 2007. This observation totally suggests that higher levels of FDI's

could be associated with higher prospects of economic growth as revealed in the figure 4.1 above.

4.2: Foreign Trade and GDP

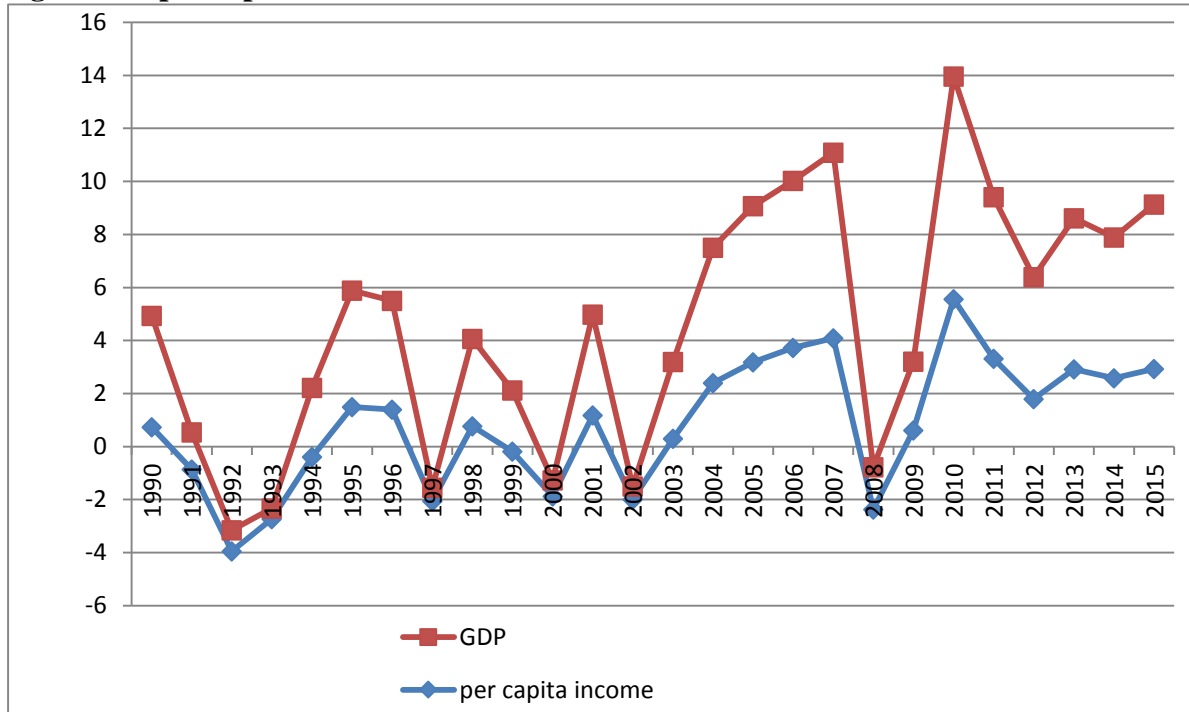


Source: NSE annual reports and accounts, KNBS annual economic surveys, various years

Figure 4.2 above illustrates the trends of economic growth as the percentage of GDP of foreign trade using data from table 1. Economic growth decreased unexpectedly in the year 2008 because of post election violence in December 2007 to February 2008. An average of foreign trade fell sharply since 1996 to 1998 before stagnating for the next three years. This was mainly due to the foreign investors being allowed to trade freely due to stock market liberalization in 1995; a slow economic growth was witnessed in foreign trade in three years after 1995. Foreign trade inflows had increased immensely with the increased limit of foreign participation in 1995. The figure above depicts a direct relationship between economic growth and foreign direct investments; when foreign trade increased, the economic growth as measured by the GDP

increases and vice versa. This trend leads to a conclusion that foreign trade contribute to economic growth in Kenya.

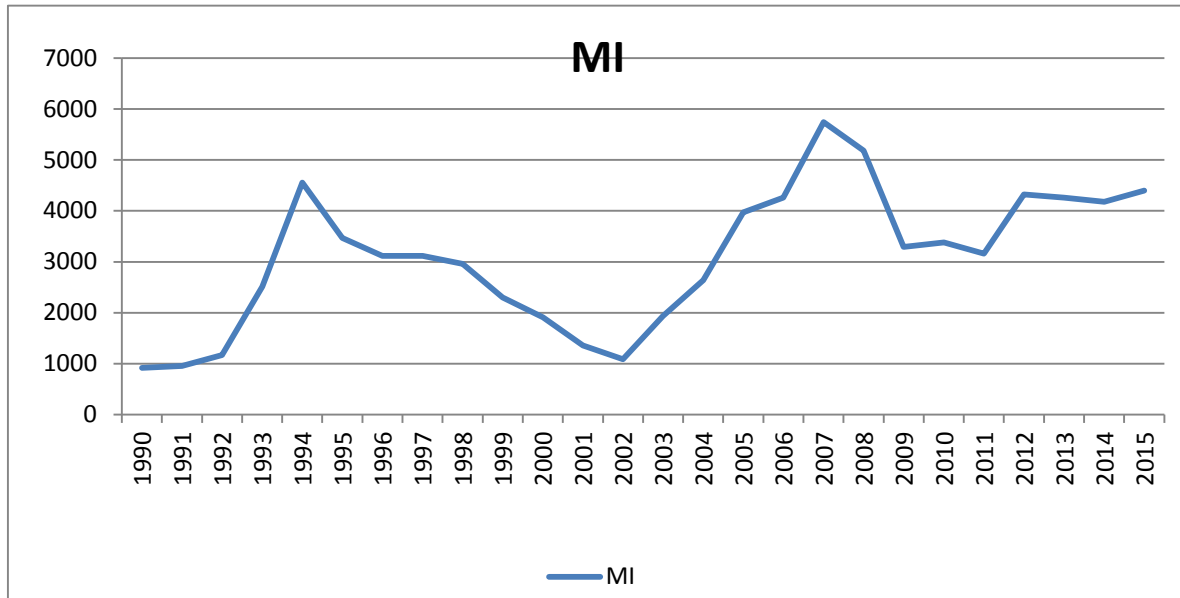
Figure 4.3: per capita income and GDP



Source: NSE annual reports and accounts, KNBS annual economic surveys, various years

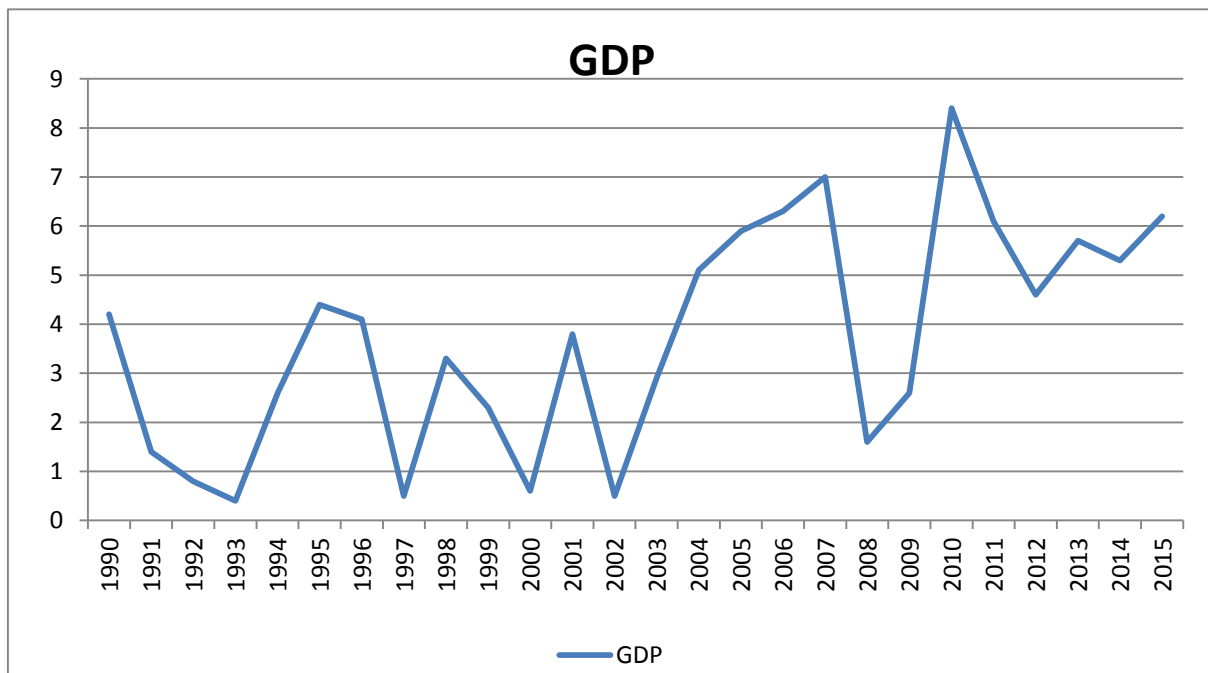
The figure above compares per capita income and GDP growth in Kenya using data from table 1. As the disposable income of citizens of a country increase, they increase their savings which is directly proportional to investments in the stock market which boosts economic growth of a country. The figure above reveals in 2007, the GDP was higher as well as the income per capita. Figure 3 above depicts that GDP is directly proportional to per capita income. As revealed, when the GDP increases, per capita income increases as well.

Figure 4.4: stock market index



Source: NSE annual reports and accounts, KNBS annual economic surveys, various years

Figure 4.5: Kenya GDP



Source: NSE annual reports and accounts, KNBS annual economic surveys, various years

Figure 4.4 and 4.5 above was constructed using data from table 1. It shows a steady and constant performance of the stock market index (MI) in the year 2002 and 2006 which was due to the macroeconomic reforms in the country during that time. Especially, the period 2008 and 2009, a severe economic slump occurred in the country. The reason for economic slump can be explained by the severe economic crisis experienced around the globe during that time. The economy started to recover in 2009, perhaps due to suitable macroeconomic policies and macroeconomic stability. From the findings above, there seems to be a direct relationship between the two variables, example in 2007 the MI was higher as well as GDP while in 2008 the GDP declined as well as MI as shown in figure 4 and 5 above. This leads to conclusion that MI has a direct relationship with the GDP which implies, as MI increases GDP increases and vice versa.

4.4 Discussion of Research Findings

In Kenyan economy, there is relation between performance of GDP and the stocks; existence of bivariety relation between GDP growth and performance of the stocks. Many listed firms in the country are agricultural in nature. The Kenyan economy, where we established that the stock performance boosts GDP growth was found to have a between the two variables.

The implication of the study reveals that stock market performance has been hampered by numerous factors which inhibit the stock market to attract and retain investors especially those sector which have direct effect on the economic growth. It further revealed that there were many reforms to increase the performance of the stock market but none were being followed to the latter. There have been many regulatory hindrances as the regulations do not encourage

performance of the stock market and is usually a familiar scenario in many low income countries and especially in African countries.

The positive reforms occurring in the stock market are usually followed for a short period thereby influencing short term economic growth. Though the stock market performance in the country has experienced remarkable changes in the past but is always in the short period as the citizens lack awareness.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study is structured as follows: the foregoing chapter four provides the study findings and their interpretations. This chapter will handle the summary, conclusion and recommendations of the study.

5.2 Summary

The study aimed to determine relationship; performance of stocks performance and growth of the economy in Kenya as measured by the GDP. The study was carried out using the regression analysis technique. There was a consensus that there is a link between performance of stock and GDP in Kenya. Variables of the stock market confirm there was instability in the performance of stock over the entire period understudy with the year 2008 being the mostly affected. The share index reached its peak in the 2008 while the year 2006 recorded the lowest value. In the case of the GDP, 2010 witnessed the peak according to the results. Preceding year recorded the lowest amount of real GDP. The economic growth values depict a variable which is highly reactive to changes as it fluctuates over time. In the study we witnessed the NSE values attain their peak. Economic growth variables revealed themselves as volatile in general.

NSE is viewed as an institution which gives savers a ready access to their finances as it concurrently offer them funds for long time. Due to this factor, it assists to diversify assets thus allowing investors to have a choice in deciding how to mix their investments between risk free and risky ones. Once more, the issue of liquidity problem may push investors to remove money

for long time projects were especially if the stock markets were not performing properly. Therefore, the NSE is viewed as a factor that drives GDP in the country.

5.3 Conclusion

The study findings from the research reveal a link exists between performance of stock market and GDP performance economic growth. From the statement above we can clearly see that present prices of stocks can be used to predict the future value. As such, stock prices today reveal them expected returns, and this means that stock market can be applied in predicting GDP performance. When stock prices raises today, it acts as a signal to investors to as they will anticipate for higher returns on the invested funds. The statement above concurs with the findings of Mahdavi and Sohrabian (1994) as they revealed a link between the stock prices and the performance of the economy: the stock prices increment in the USA increased the economic growth rate. Seyyed (1991) observed as a probable reason behind the economic performance being influenced by the stock prices is by wealth effect whereby fluctuations in prices of stocks affect the level of wealth, this leads to an increase in consumption as well as the demand. We can comfortably say the performance of the economy is affected by the performance of the stockse.

Results from this study concur with other studies as revealed in chapter 4 and though issues of GDP are vital in the prospects and judgment of savers, the securities market play a major role in boosting the GDP hence more attention should be channeled towards its improvement. The results from the study also concur with existing theories discussed earlier as revealed by the endogenous growth theory and as well as Gurley and Shaw Hypothesis. In addition, the findings validate the primary function of the security markets in establishing the performance of the economy, whose capital market is relatively small, though it's biggest than its neighbouring

eastern African countries. The findings above reveals huge prospective that the Nairobi stock market play in economic development thus the nation should encourage a tradition of saving among its citizens and as a result improving investments as savings are directly proportional to investments. Despite the notion that the banking industry is superior among the financial institutions, the results from this research highlight the role played by the performance of the stocks in boosting economic growth.

5.4: Recommendations

From the results of the research, it we give recommendations significant to the stakeholders and also enriches the literature on the topic. In their study, Mahdavi and Sohrabian (1991) observed prices of stock changes are directly proportional to economic performance; this can be viewed as a policy tool which can be used by policy makers to design measures of preventing extreme stock prices fluctuations which leads to stability in various economic variables. It has been proposed by (Heller, R. 1989), who came up with suggestion that the use of open market activities in the stock market could assist in curbing extreme fluctuations in share prices. Therefore, the stakeholders can use the stock market to control institution which in turn controls the fluctuations in stock market hence macroeconomic stability.

On another hand, the government through various institutions should encourage the culture of savings among its citizens which is directly proportional to investments by putting in place conducting policies which will encourage the citizens to save. The government should further realize the role that stock market play and give it importance as it does to the banking sector in order to increase capital formation which eventually increases the living standards of the citizens through increased per capita income hence boosting economic growth. This point is further

enriched by Solow's growth model that noted that increased savings are directly proportional to GDP. This statement suggests nations which have high savings experience an increased investment which increases the velocity of economic performance. A further perception stakeholders should consider is to open its economy so that it can increase the inflows of foreign direct investments which acts as supplements to domestic savings and assists the country to achieve higher economic growth and development. Thus, increased savings induces higher investments which lead to high rate of growth of economy.

My study imply, for the stock market to grow the government and capital market authority should eliminate policies which act as barriers to its growth Kenyan stock to perform even better. The research further suggests capital markets authority should look at ways in which it can eliminate the speculators who cause the stock prices to fluctuate hence the saver may suffer capital loss hence discouraging them from investing in the stock market. Additionally, capital markets authority should encourage more SMEs through education and campaigns to be listed in the stock market in order to gain more funds for investment therefore leading to growth of stock market and boosting economic growth consequently.

5.5 Limitations of the Study

From the research, we have seen that the basic premise of the growth theories did not put much focus on financial intermediation and its role on boosting GDP. Neoclassical endogenous growth theory and Gurley and Shaw Hypothesis failed to clarify why in the long run some economies perform better than others. Moving on to the empirical literature we observed that various researchers could concur there's correlation between performance of the stocks and GDP. We

further encountered difficulties in data collection as some variables were not recently updated; this posed a challenge to our study and derailed our research.

5.6 Suggestions for Further Research

The research aimed at examining relationship between performance of stocks and growth of GDP in Kenya. Results from the study has made an inferential there exists a direct relation between performance of stocks and GDP growth. The findings concur with studies by Mayer, C (2003); Nazir, M.S et al (2010).

The findings from this study can be broadened in various other ways to confirm whether the Nairobi stock market is devoted enough for economic growth (Olweny, T., & Kimani, D. 2011) and how it has been allocating resources to the most vital areas of development. This will assist to find out whether stock market has helped to ease allocative efficiency of resources. Further, studies should be carried out to find out if other factors of the stock market like the market size and price volatility shows different results from those revealed in this study. Other studies should be carried out on the sub Saharan Africa in order to shed more light on the relationship between performance of the stocks and growth of economy in these countries.

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