A Cross-sectional Analysis of the Factors influencing Company Listings on the Nairobi Securities Exchange

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Master of Commerce

2012

A Cross-Sectional Analysis Of The Factors Influencing Company Listings On The Nairobi Securities Exchange

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A Research Thesis submitted to the School of Management and Commerce in Partial Fulfillment for the Master of Commerce Degree

School of Graduate Studies

Strathmore University

Nairobi, Kenya

April, 2012

Declaration

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no material previously published or written by any other person except where due reference is made in the thesis itself.

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Approval

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Acknowledgment

ABSTRACT

This was a cross-sectional study of the specific factors influencing company listings based on the Nairobi Securities Exchange (NSE). The study sought to establish what factors affect those companies which have met the threshold listing requirements but have not opted to publicly list on the exchange. Non listed companies were used as suggested by prior research to determine what has hindered their being listed as well as what would motivate them to consider listing on the stock market with regard to the benefits that accrue to listing.Data was collected based on two sample groups of companies: listed and non-listed using the companies' prospectuses of the listed companies and a questionnaire for the non-listed companies. Basic descriptive statistics were used to describe the empirical data, inferential statistics and multiple regression analyses were used for analysis.

From among the listed companies the most influential factor considered in the listing decision was the political environment which was characterised by a change in political regime. The effect cited by the respondents was the (de) regulation of the industries in which the companies were operating in thus making expansion possible and consequently use of the capital market to raise funds. Additional factors which had not been considered in the literature which emerged among these companies were the market automation which considered to have made the market more efficient and thus more attractive.

With reference to the non-listed companies, the most influential factor was the listing requirements considered under the legal and regulatory framework. The respondents expressed the view that these were too stringent. The other relatively more influential factor was the political environment which was also highly considered by the respondents. However, there were four issues that emerged that had been previously covered scantily. These factors were determined as the more influential factors by the respondents with reference to their not being listed. The emerging issues were company or organization structure, public scrutiny, dilution of ownership and a lack of necessity to raise long term funds. Ironically, the most motivating benefit was access to a wide capital base, drawing the conclusion that when a company is in need of heavy capital financing they would highly consider use of the capital market. Despite these benefits the study found that there is a need to lower listing and maintenance costs and for the NSE to broaden the scope of their products.

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CHAPTER ONE

1.0   INTRODUCTION

1.1   Background to the Study

1.1.1   Global Trends

The benefit of stock markets in developing countries has been a phenomenon that continues to be debated upon by both policy makers and academicians (Singh, 1997; 1999; Kenny & Moss, 1998; Ngugi, 2005; Kibuthu, 2005; Yartey & Adjasi, 2007). This debate has especially gained momentum over the past two decades. The reason for this being an increased interest in development finance for the alleviation of poverty and restructuring of global capital flows (Hearn & Piesse, 2006). In general, Singh (1997) stated that the stock market is meant to be a means of accelerating economic growth through increased domestic saving and improvement of the quality and quantity of investment. To encourage individuals' savings, the stock market provides an additional financial instrument that may better meet their risk preferences as well as liquidity needs. As an avenue for growing companies, Yartey & Adjasi, (2007) observed that the stock market is a source of capital at a lower cost and helps reduce the dependence of companies on bank financing. Less dependence on bank financing is seen in companies whose countries have better developed stock markets as it reduces the risk borne in the case of a financial crisis.

The globalization wave has brought about a change in the global business environment which triggered the need for countries to compete for investments to spur economic growth. In response to this change governments viewing their stock markets as a platform for investment and a tool to drive economic growth have revamped their market infrastructure. The 1990s saw a number of developed countries restructure the corporate governance in their stock exchanges in addition to the developments in automation. This restructuring happened through the process of demutualization. Demutualization was defined by Aggarwal (2002) as the process of converting exchanges from non-profit member-owned organizations to for-profit investor owned corporations.

1.1.2   Africa and Emerging Markets Perspective

Demirgüc-Kunt & Levine (1996) found that for the period 1982-1993, the development of the global stock market was booming with an annual growth averaging 15%. Of this growth,

the level attributed to the developing economies in the sample was 14%. This was a recorded rise over the years from the 3% it was at the initial time of the research. They established that during the same period, developing economies grew considerably at a faster rate in comparison to the developed economies. This development was measured in terms of stock market size, liquidity and international integration. The developing economies used in the study were; Indonesia, Portugal, Thailand and Turkey. Table 1.1 shows a list of the number of companies listed on these stock exchanges in comparison to the Nairobi Securities Exchange (NSE henceforth). Following the trend shown in table 1.2 of the listing and delisting of companies on the NSE at around the same period (1980-1999) the growth established is approximately 1.75% showing an addition of one company.

Table 1.1: Comparison of Listed Companies for a Selection of Developing Economies

Country	Number of Companies Listed
India (Bombay)	4955
Malaysia	959
Thailand	535
Mexico	406
Chile	236
Argentina	106
South Africa	396
Egypt	313
Nigeria	216
Morocco	73
Zimbabwe	96
Kenya	55

Source: CMA (2010); Senbet & Otchere (2008)

Yartey & Adjasi (2007) observed that there has been a drive towards the establishment of stock markets in Africa since 1989. From a total of eight (five in Sub-Saharan Africa and three in North Africa) that had been established by then an additional fifteen stock exchanges in Africa have been set up to give the present total of 23 stock exchanges (Appendix1). This drive stemmed from the argument by Yartey & Adjasi (2007) that for the success of domestic financial

liberalization programmes in Africa, there is a need for the establishment and development of stock markets. However, for a long time, development finance focus on Africa has been on the bank-based financial system vís a vís the market-based system[1] such that the banking systems in most African countries has been the main source of long term financing for companies.

Kenny & Moss (1998) noted that the banking systems in African countries have been better developed in comparison to the stock market systems with their aim being to support the extractive industries. In a bid to be in step with the developed countries where there is a tendency to rely less heavily on the banking system in order to better shelter risk from a credit crunch, the debate in the use of the capital markets as a source of long-term financing has rekindled. This is especially so in Sub-Saharan Africa as noted by Hearn & Piesse (2006), who found that the capital markets have not been fully utilized and have a lot of room and potential for growth as most are relatively young having been set up only in the last twenty years (i.e. from 1989). However, proponents of the use of banking systems as a source of capital financing argue that the stock markets are an expensive irrelevance to the poor countries (Singh, 1997, 1999). This may tend to explain the slow growth of the capital markets in the less developed countries. With the exception of South Africa's Johannesburg Stock Exchange (JSE Ltd), the rest of the capital markets in Africa have generally had very limited levels of development measured in terms of market capitalization as a proportion to the GDP of the country as was found by Hearn & Piesse (2006). There are generic characteristics that have plagued these African markets thus inhibiting their growth such as improper infrastructure, few listed assets, illiquidity, and offer a very limited range of tradable instruments in comparison to the developed country markets (Yartey & Adjasi, 2007).

The concept of demutualization has also been dangled with among the African stock exchanges. As observed by Yartey & Adjasi (2007), this process among African stock exchanges is going to take some time since most are relatively young (of about 20 years), not to mention that their regulatory frameworks are still undergoing restructuring to match up to the international standards. The major problem as cited has been conflict of interest in the to-be profit making organization (i.e. the demutualized stock exchange) and the regulatory systems are still in their formative years. In many of the African countries, a formal stock exchange was

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[1]A bank-based financial system is one where most of the capital raised by companies is sourced from the banks, i.e. through bank borrowing; in credit form. Whereas a market-based financial system is one where there is heavier reliance on capital markets as avenues for raising capital financing than from bank credit (Senbet & Otchere, 2008).

established before the creation of a formal independent securities regulator. Again the only African stock exchange that is the exception is the JSE in South Africa which demutualized in 2005. JSE is relatively large and old in comparison to the NSE; however, Kibuthu (2005) compared Kenya with Mauritius which has a relatively new stock market established in 1989. This particularly smaller market has had an impressive growth trend in the last twenty years with an increase of traded securities from 6 at inception to 120 by 2003.

1.1.3   Focus on the Nairobi Securities Exchange

The Nairobi Stock Exchange (NSE) was among the earlier stock markets established in 1954. Ngugi & Njiru (2005) noted that the growth of the primary market has been very slow with the number of listed firms as at 2005 being less than the number at independence (63 at independence). A comparison of the listed companies presently and about two decades ago shows that there were 54 companies listed in 1989 to 55 in 2010 as a combined total of all the investment segments. The companies listed have been changing but they have not been increasing due to the constancy in listings and delistings (Table 1.2).

The trend in Table 1.2 shows an almost equal number in Initial Public Offering (IPO) listings and converse delisting, for ten-year periods since its establishment. The column showing the number of listed companies is a cumulative of the new IPO listings and excluding those delisted. For instance in the time period 1955 – 1959, the figure 55 companies relates to the 46 listed in 1954 from among which 4 were delisted and 13 new ones were added. The column number of listed companies shows that the 1960's were very good years for the NSE as it has the highest number of companies listed and it recorded the highest number of new IPOs. The trend exhibited in the table shows that the number of listed companies was increasing steadily in the initial time periods then there was a sharp decline which steadied in the 80's and then the downward trend has continued since then very consistently. The new IPOs and delistings columns show a sharp increase in the 60's then a very huge decline in the 70's for the new IPOs but recorded constancy in the delistings. The 80's and 90's were also unpleasant years with higher levels of delistings than listings. From the year 2000 the NSE picked up with a surge in the new issues however the number of delisted as well as suspended companies increased. This trend therefore exhibited in the table shows a clear stagnation of the NSE in terms of new equity issues which gives the motivation of the present study.

Table 1.2: Trend of Company listings and delistings on the NSE

Period	No. of Listed Companies	New IPO listings	No. of delistings
1954	46	-	-
1955 – 1959	55	13	4
1960 – 1969	63	19	11
1970 – 1979	57	5	11
1980 – 1989	57	3	3
1990 – 1999	56	4	5
2000 – 2009	55	10	12

Source: CMA Annual reports (2001-2009), (Ngugi & Njiru, 2005)*.*

Generally, public offerings of equity and other types of securities are seen as useful instruments for raising of capital from the domestic market and serve as a medium of raising the profiling of the specific country's stock market as a platform for foreign investment. In African stock markets the distribution of IPOs has been relatively uneven with sudden bursts of hyped investment and then relative dry spells of about four years until the next IPO. The scenario in the NSE is a case in point. Narrowing down the trend analysis to the 10 year period from 2000-2009, Table 1.3 below shows a relatively dry spell from 2000-2005 where after there was a surge in 2006 with three IPOs of KenGen, Scangroup and Eveready EA Ltd and an issue by introduction of the Equity Bank. These offerings were all oversubscribed indicating market confidence, hungry investors and excess liquidity in the system (CMA, 2010). The year 2007 had no IPOs but in 2008, the Safaricom IPO dominated the market. This IPO was also oversubscribed and was one of the largest IPOs in the region. It saw quite a number of new investors plunge into the stock market for the first time (NSE, 2008). Appendix 2 details the issues in this time period showing as well the rate of subscription to these issues. From these tables the activity in the equity market evidences stagnation in the NSE in terms of listed companies. The present study therefore aims at establishing what has caused this stagnation in the development of the NSE.

Table 1.3: Company listing and delisting trends for years 2000 - 2009

Period	No. of Companies Listed	New IPO listings	No. of delistings
2000	52	1	3
2001	54	2	-
2002	51	-	3
2003	49	1	3
2004	49	-	-
2005	48	-	1
2006	52	4	1
2007	54	2	-
2008	55	2	1
2009	55	-	-

Source: CMA Annual reports (2000-2009), CMA statistical bulletin (2010)

In line with the global trends of demutualization, in a bid to improve competitiveness, take advantage of technological advancement and provide avenues for innovation of new products, the NSE has not been left behind. In the last decade or so (years 2000-2008) the NSE has experienced corporate governance issues with the collapse of stock brokerage firms (Ngenye Kariuki, Discount Securities, Francis Thuo & Partners, Nyaga Stockbrokers). The process of demutualizing the exchange, initiated in 2006 and completed in 2010, has been proposed as a possible platform to speed up the formation of strong regulatory systems, i.e. improvement of the regulatory framework for the market (KIPPRA, 2009). However, since demutualization is not the focus of this study, it shall not be discussed in further detail.

1.2 Statement of the Problem

A comparative analysis of stock exchanges in Africa for ten years (2000-2009) done by the Capital Markets Authority (2009) evidenced the dismal trend of listings on the NSE (Table 1.3). Following Ngugi & Njiru (2005), the information in Table 1.2 also exhibits trend analysis of the stagnation in the development of the NSE with regard to the number of companies listed. Given that the NSE has a long history dating back 46 years from 1954 there is a question that arises with reference to the number of companies listed in comparison to the other relatively older stock exchanges of Egypt and South Africa. Kibuthu (2005) finds that other stock markets

in Africa such as Mauritius that have come up in the last 20 years have recorded a higher number of companies listed in comparison to the NSE. As discussed earlier, in the wake of development finance as a means for poverty alleviation (Hearn & Piesse, 2006), there has been a shift in academic focus to concentrate on global stock market development trends. Particular importance has been given to the contribution of a market-based economy over a bank-based economy especially for developing economies in meeting the poverty alleviation millennium development goals. Kenya, on its path to achieving economic development has increased focus on the NSE from which the question of the stagnation of the exchange's development has arisen. The present study in following this trend aims at finding out what has caused the stagnation in the company listings on the NSE as seen from the Tables 1.2 & 1.3given the history of the exchange.

Pagano, Panetta & Zingales (1998) found that the decision of going public is an important corporate finance decision that has been neglected. Most corporate finance textbook authors e.g. Brealy and Myers as cited by Pagano *et al*. mainly discuss the institutional aspects of the decision, then following conventional wisdom that going public is simply a stage in the company's growth process. This theory as Pagano et al. noted is not sufficient since it does not explain the reason why there are large privately held companies in the United States that were not listed. In considering the number of companies listed over the ten-year period as shown in Table 1.2 above this theory holds true for the NSE, where there are also large privately-held companies that have not been publicly listed. In an effort to further Ngugi & Njiru (2005) this study sought information from the non-listed companies on why they have chosen to stay unlisted.

1.3   Objectives of the Study

The main objective of this study is to analyse the factors that influence company listings on the NSE.

The specific objectives for this study were:

1.   To identify the specific factors that influenced listed companies' listing decision.
2.   To establish the factors that have hindered unlisted companies from listing on the NSE.
3.   To find out the listing benefits that would motivate company listings.

1.4   Research Questions

1. What specific factors influenced the listed companies' listing decision?
2. What factors have hindered unlisted companies from listing on the NSE?
3. What listing benefits would motivate company listings?

1.5   Scope of the Study

As this is a cross-sectional study, it considers several factors tested on different groups at a specific time, the scope of the study was dependent on the availability of data and the time constraints. The scope selected was the use of companies listed on the NSE in the years 2000-2009 to source a matched sample of non-listed companies with fairly similar characteristics.

1.6   Significance of the Study

For Academicians

The study intends to contribute to literature on the NSE, shedding some light on the issues that may be causing stagnation in the NSE in terms of company listings. The literature on listing trends is scanty, with most economists linking the development of the stock market with economic development, attempting to establish their cause-effect relationship. Therefore, this study looked at the stock exchange to find out what has hindered market growth. In addition it sought to forecast what changes are expected. Therefore, the study will also leave room for the researcher to later relook at the situation of the NSE after the changes expected and do a comparison study. In an attempt to align Kenya with the rest of the developing economies in terms of economic growth and it being the biggest economy in the East African region, it is worthwhile to perform an academic study of the stock market trend.

For Policy Makers

This study would also be important for policy makers. The stock market as a tool in the financial system is expected to be continuously growing and contributing to economic growth in a sort of back and forth relationship. In the wake of new structural reforms due to the demutualization agreement, and the East African integration, it is worth looking at the NSE at this particular time as it is at the brink of change.

For the Stock Market Regulators

The study will possibly give some insight adding to what they already have on the causes of the dismal performance of the stock market in terms of company listings. The study intends to shed some light on the reasons why even after the initiatives that the NSE, CMA and the government seem to be taking in order to encourage listings, the numbers are still dismal.

For Companies

This study, attempts to create awareness especially for those companies that have not listed and yet have met the requirements, on the initiatives that are being undertaken in order to encourage them.

1.7   Chapter Summary

This chapter gives a brief introduction to the study and intent of the study to be conducted. It outlines the various perspectives of the stock market trends globally and in Africa. The rest of this thesis proposal is organized as follows:

Chapter two: gives a review of literature that supports this study and the hypothesis to be tested

Chapter three: outlines the methodology that will be used to accomplish this study.

Chapter four: presents the data and discusses the findings.

Chapter five: presents the summary of the study, conclusions, recommendations and limitations experienced.

CHAPTER TWO
LITERATURE REVIEW

2.0   Introduction

This section discusses aspects of the study that have been looked at by other authors in various parts of the world. It looked at what has been studied in the world stock markets considering both the developed economies as developing economies[2]. The African context and the Kenyan perspective were looked at further as well. Factors affecting the number of companies listed on stock exchanges especially in the developing economies were discussed and eventually a conceptual framework drawn from these as the testable factors.

The chapter is organized in the following sections: **2.1:** The Rationale for Stock Exchanges; **2.2:** Trends in World Stock Markets; **2.3:** The Rationale for Stock Exchanges in the Developing World and Africa; **2.4:** The Nairobi Securities Exchange; **2.5:** An Analysis of the Challenges faced by African Markets; **2.6:** An Analysis of Stock Market Development Measures; **2.7:** The Determinants of Stock Market Development; **2.8:** The conceptual Framework.

2.1   The Rationale for Stock Exchanges

According to the World Bank the financial markets of any economy are critical to a country's overall economic development. The banking system and the stock markets enhance growth which is the main factor in poverty reduction. Strong financial systems provide reliable and accessible information that lowers transaction costs which then spurs resource allocation and economic growth. The main indicators as noted by the World Bank include the market size and liquidity (The World Bank Group, 2011).

The stock market normally develops in stages as pointed out by Capasso (2006) and goes through a transition process. In the rudimentary stages, banks and other similar financial intermediaries dominate the financial market such that the stock market is more or less insignificant to the economy. Continued accumulation of capital leads to the development of the financial intermediaries and increases the number, complexity and sophistication of the financial

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[2]The term developing economies has been used to refer to countries classified by the World Bank as having low or low middle Gross National Income per capita. This range as at 2009 was (-ve). These are also countries defined as having a low level stock of physical capital and a higher proportion of the population engage in less specialized activities (Development Education Program, 2004).

instruments. This in turn results to an increase in the financial market size and thus the growth of stock markets through an increase in the number of companies listed and the market capitalization. The development of the stock market as seen from Capasso (2006) can be measured either quantitatively or qualitatively or by a combination of both measures. The primary quantitative measure used in measuring the stock market sizes put forth by several authors (Demirguc-Kunt & Levine, 1996; Li, 2002; Claessens, Klingebiel & Schmukler, 2002; Capasso, 2006; Yartey & Adjasi, 2007; Yartey, 2008; Yuriy, 2008) has two major aspects: firstly the market capitalization (i.e. the total value of all the shares traded at any particular point in time) or an average of this value over a specified period of time; and secondly the number of companies listed on a particular stock exchange. Seemingly, these two measures are not sufficient to capture all the characteristics of the financial markets, therefore these measures are qualified using the aspects of liquidity, which enables firms to mobilize funds at very low cost as well as ease of transfer from one investment to another.

In a World Bank report, Claessens et al. (2002) established that stock markets have grown considerably over the last two decades in both developed and developing countries. This growth has been attributed to better fundamentals such as higher economic growth, macroeconomic stability and structural reforms, most importantly the privatization of state-owned enterprises. In previous financial sector development studies, Claessens, Klingebiel & Schmukler (2001) found that the globalization trend has had an effect on the development of stock markets in terms of activities by companies to raise capital through listing and also market trading activity. In economies where the fundamentals are relatively better off and thus a tendency to have higher levels of automation; higher levels of liquidity and are relatively larger, there has been a noted increase in international exchange. The stock market size has been measured in terms of company listings with an inclusion of international listings (i.e. multi-nationals as well as cross listings) to the domestic listings.

Boubakri and Hamza (2005) also agreed that there has been considerable growth in capital markets around the world over the last two decades. In the wake of globalization, market integration has been on the increase with more regional markets coming up and thus forcing governments to prioritize the development of their domestic markets. Policies that aim to encourage this development have been given unprecedented attention by global policy makers such as the International Monetary Fund (IMF) and the World Bank (World Bank, 2002; 2005).

The most prominent of these policies that have been encouraged is the privatization of state owned corporations. The development of stock markets has been measured prominently by the market size using quantitative measures of number of companies listed, market capitalization and the volume of securities traded.

Demirguc-Kunt & Levine (1996) in their measures of stock market size established that market capitalization is positively correlated with the ability to mobilize capital and diversify risk. The measure of market size using number of companies is stated to indicate that the marginal difference in the number of listings between global stock markets is insignificant but rather the extremities are what matter. These extremities refer to markets having either very few companies indicating that the markets are limited or very many companies indicating unexplained and possibly unsustainable growth in the markets. In an assessment of European companies to determine why they go public, Huyghebaert (2007) agrees with Demirguc-Kunt & Levine (1995) in what the literature portrays. This scenario explains the stock markets as an avenue for firms to reduce financial risk through capital restructuring as opposed to being a source of financing for firms' growth.

Kibuthu (2005) agreed with previous researchers in stating that the capital market has the potential to meet the fixed-capital needs of the private sector. These markets also have the ability to meet the financing needs in terms of sustainability and efficiency in the large scale and long-term projects of governments, corporations and even banks. She outlines five main roles that the capital markets play in facilitating the mobilization and allocation of medium and long-term funds for productive investments. These are: providing a simple mechanism for the transfer of funds; facilitating companies' access to a large number of local and foreign investors; widening the array of financial instruments available to savers and investors; increasing the diversity and competition in the financial systems and; providing market signals on the present situation and future expectations.

In order for capital markets to improve their ability to mobilize resources and efficiently allocate capital to investment projects, there is a need for deepening of financial markets. Claessens, Klingebiel & Schmukler (2002) establish that for this to happen a change in government policies through privatization and liberalization programmes has been the route taken. Most emerging economies' governments have opted for this route releasing substantial amounts of their shareholding in state corporations to the public through public offerings.

Liberalization efforts have been used as well to allow foreign investment on local stock exchanges thus growing the markets in size where the environment is enabling.

2.2   Trends in the World Stock Markets

There has been phenomenal expansion, around the world stock exchanges as found by Li (2002) measured by market capitalization. He noted that both the developed as well as developing countries, for example Canada, Japan, Argentina and Mexico respectively, have implemented these reforms. The increase in market capitalization recorded by these countries was 18%, 15%, 32% and 26% respectively. Gozzi, Sergio, & Torre (2007) affirmed the same view that over the last two to three decades several countries have implemented significant reforms to foster domestic capital market development. The reforms that have been undertaken include stock market liberalization, privatization programs and the establishment of regulatory and supervisory frameworks. So as to foster the flourishing of capital markets in their respective countries, governments have approved new laws and regulations in a bid to create proper legal and regulatory frameworks. In addition to this, many countries have tried to improve corporate governance practices, mainly through demutualization processes as noted by Aggarwal (2002).

Kibuthu (2005) found that the surge in stock markets development was due to liberalization and privatization programmes that have been a wave in African markets, especially significant in Nigeria and Mauritius. She further states that the reason for this trend among African economies as development strategies is the changing attitude toward the role of the private sector in economic development among African states. These Structural Adjustments Programmes (SAPs) were intended by the international monetary institutions (the World Bank, IMF) as a route to facilitate the privatization of state-owned corporations.

According the OECD (2001) the privatization programs through which the governments reduced their holdings in several state corporations had a direct impact on the development of their stock markets. Pagano (1993) determined that the positive externalities generated by the listing decisions were expected to foster stock market development by increasing diversification opportunities that would be available to the investors and therefore encourage trading activity as well as prompt new listings by private firms. Kyle (1985) had earlier noted that privatizations through share issue inevitably increased the participation of uninformed retail investors in local markets whose presence reduces the risk of adverse selection and also increase the liquidity levels of the market. In Kenya, the privatization bug hit from 2006 when the government off-

loaded shares in the power producing company KenGen. This IPO saw the highest number of retail investors come out to participate in an IPO and it was oversubscribed by approximately 236% (The Nairobi Stock Exchange, 2006).

2.3   Rationale for Stock Exchanges in the Developing World and Africa

Kibuthu (2005) found that as global markets move toward deeper financial market systems, governments in developing economies are engaging in privatization initiatives as proposed by the World Bank. In the developing economies these programmes have been established as a means to facilitate the reduction of public debt, an improvement in efficiency and incentives in the operations of private entities. Yartey (2008) adds to this view in the IMF Working paper 08/32 citing domestic financial liberalization as a reason for stock market development. In addition to this, he notes that the stock markets have developed as a channel for foreign capital.

Perotti & Oijen (2001) in their study on the impact of privatization on stock market development show that privatization not only effected an improvement in stock market size through number of companies and market capitalization, it also improved the political environment of the developing economies that were sampled in the study. Using a sample of 22 developing economies and having controlled for financial liberalization, Perotti & Laeven (2002) found that the privatization of state corporations gradually increased market confidence. The other variables that have been highlighted as determinants of stock market development include: *the legal environment; the socio-economic environment; the liberalization of the stock market; the level of financial intermediary development; and the stock market regulation* (Boubakri & Hamza, 2005).

Allen, Otchere & Senbet (2010) found that over the last twenty years there has been a surge of interest in the establishment of stock exchanges and development of stock markets in African states. This follows the findings of Kenny & Moss (1998) on development of African stock markets who established that there has been a rapid increase in the number of stock exchanges in the African continent. The stock markets have therefore become fundamental to the financial system and thus a very important part of the economies of many African states. The drive towards establishment of stock markets in African countries in the last two decades has been linked to other important developments in the global economy for instance Ghana installed

the Financial Sector Adjustment Programme (FINSAP) which aimed at the reform and improvement of the banking sector and the capital market.

The dynamics of stock market development in economies vary with regard to their level of economic development because the macro-environment (including politics, demographics) in which these markets are set differ. Boubakri & Hamza (2005) found that the time-lag for stock market development, when the macro-environment is factored in as a determinant, in developing economies is two years while that of developing economies is one year. Using a measure of company listings to further clarify this time-lag, from the commencement of privatization initiatives to the public offering of the companies' shares on the stock market, in the developing economy it would take two years for the shares to start trading while that of the developed economies it would take one year. Also, using the number of companies listed as the measure of stock market development, Perotti & Oijen (2001) established that privatization initiatives were seen to have had a substantial impact on the trading liquidity through an increase in listings.

Levine (1991) noted that for developing economies the impact of listing of large privatized corporations would affect the trading liquidity and increase the investment opportunities for the local stock market as well as increasing portfolio diversification. In developing economies, privatization efforts by governments have had the effect of strengthening the property rights and institutional reliability which would broaden the appeal and confidence in equity investment in the stock markets. Therefore, for the developing economies whose legal systems are relatively less developed will have their governments initiate incentives to facilitate the transactions in the stock market as they are listing previously state-owned corporations (Perotti & Oijen, 2001)

Following this argument Boubakri & Hamza (2005) found that stock market development in terms of market size and liquidity was positively and significantly related to the institutional quality of the legal environment of the economy. Market liberalization would also have a positive effect on the market development as the governments were opening up the market to foreign investment as established by Kibuthu (2005).

2.4   The Nairobi Securities Exchange (NSE)

The history of the NSE as discussed by Ngugi & Njiru (2005) dates back to 1954 where on introduction of the equity market in favour of longer term cheaper financing there were a total of 46 companies listed. As seen in the introduction chapter of this study the trend in listings on

the NSE displayed in Table 1.2 is countered by a similar trend in delisting due to either deregistration for non-compliance or take-overs.

The change in governance at independence and the enthusiasm in the country's economic development between 1963-1970 saw the government engage in deliberate efforts to encourage the development of the financial system. Through the encouragement of the banking sector to make available credit facilities to persons willing to purchase shares both in the primary (at IPO level) and the secondary market. During this period (1966-1970) statistics show that there were a total of 12 IPOs all of which were heavily over-subscribed (Ngugi & Njiru, 2005). Information on the period 1971-1980 is slightly blurred as it is indefinite which of the total 11 public issues were new issues and which secondary market issues (IFC/CBK, 1984).

Following this trend however, it becomes clearer from1981-1989 where the market did not seem to pick up as well as there were only 3 IPOs and a divesture of government shares in one of the financial institutions. This particular period saw increased in the type of companies that listed (IFC/CBK, 1984). Initially the predominant companies that were listed on the stock exchange were industrial companies. This is explained by the fact that Kenya was going through a restructuring and thus growth in the industrial sector (Ngugi & Njiru, 2005). This period was characterised by economic reforms and major delistings which saw a generation of new companies that replaced the companies that were initially listed such that the number of companies at the beginning was the same as that as at the end (57). During this time, there were also an increased proportion of locally controlled companies listed on the stock exchange.

The next ten years (1990-1999) saw deliberate government efforts in privatisation of the government parastatals or state-owned corporations. Privatization efforts increased with the government offloading substantial shareholding in the National Bank, the Kenya Commercial Bank, Kenya Airways and Uchumi Supermarkets. The last IPO in this period was offered in 1997 where the ordinary shares accounted for 78% of the total listed securities, with the total number of companies standing at 58. The indication from this marginal increase in the number of companies shows that the initiatives and reforms such as the tax-free venture capital funds, removal of capital gains tax and allowance of beneficial ownership by foreigners seem not to have achieved much (Kibuthu, 2005; Ngugi, 2005).

The period 2000-2009 witnessed the listing of the first information technology company (African Lakes) and the first sugar company (Mumias Sugar Company) through privatization

efforts. From the history of the NSE, it was during this period that the NSE was segmented into three market segments i.e. the Main Investment Market Segment (MIMS), the Alternative Investment Market Segment (AIMS) and the Fixed Income Securities Market Segments (FISMS).Kibuthu (2005) found that until 2003 after the 2002 general elections the market seemed to experience stagnation in growth and economic development seemed to take a downturn.

However with the change in political regime the economic environment picked up and privatization efforts were in full swing. In 2006 the largest IPO since Kenya Airways was witnessed through the KenGen IPO that was oversubscribed by 236% (KenGen Website). This showed boosted confidence in the market from local investors and an increased level of awareness about the stock exchange as an avenue for saving for the small individual investor. The 2008 floating of the Safaricom shares signalled a need for the continuous education of new and existing investors on the risks and rewards of investing directly in the equity markets as noted by the chairman's statement in the annual report and financial statements (NSE, 2008).

2.5   Analysis of the Challenges faced by African Stock Markets

Majority of the African stock exchanges are small, underdeveloped and illiquid (Kenny & Moss, 1998; Yartey & Adjasi, 2007). They also tend to operate in isolation from other stock markets, have low trading volumes, are generally sheltered from global competition due to their national regulations and face barriers to capital mobility because of underdeveloped communication infrastructure (Asea, 2003). According to the CMA (2010) most stock exchanges in sub-Saharan Africa have not been able to create as liquid a market as would be hoped. This means that the interest levels in securities trading are so low such that there occurs moments where a sell order placed on the exchange fails to be met by a matching buy order. Where a market is developed and vibrant the occurrence of such a situation is normally temporary and the market re-adjusts through share price movements. The other issue related to the movement of share trading as described by the CMA (2010) is that several stocks are dormant with only a handful being active and experiencing daily trading. An example for this is the Ghana stock exchange where the largest company in the country (Ashanti Gold) is formally listed but does not trade on the Ghana Securities Exchange but rather has its share dollar-traded in the United States. Hence besides having a relatively low number of companies listed against the global

market, these markets have the issue inactivity of several shares counters, unless there are major happenings in the specific companies.

The presence of stringent eligibility requirements have played a role in discouraging local entrepreneurs and indigenous companies from raising capital from the stock markets, notes Kibuthu, (2005). Considering that Ritter & Welch (2002) state that the main reason for companies to go public is to raise equity funds and to create a public market for the founders and shareholders can convert some of their wealth/investment into cash at a future date. Ngugi & Njiru (2005) follow that companies by going public relax their financial constraints especially if they have large current and future investments, high leverage and high growth. Rebalancing of capital structure by firms as seen by Pagano, Panetta, & Zingales (1998) is also a motivation for these companies to float equity in a bid to reduce their debt ratio thus reducing their risk. Governments in this case seeing as the floatation of equity by these companies may as well be beneficial to the country's economic development should have ways of making the scenario more palatable. For instance the NSE requirements have such high barriers that have locked out potential entrants such as the several family owned businesses (which are a rampant trend in Africa) such that the stock exchange operates as a closed membership (Asea, 2003). Presently (NSE, 2010) there is an initiative to have an exchange platform for the Small and Medium Enterprises (SMEx tier), the success rate of this initiative will be worth considering in a later paper but at present would it as a "parallel" market for the smaller cadre of businesses be said to be the best solution?

The other major issue that plagues African stock markets is the difficulty they face in creating and maintaining efficient regulatory systems for the securities exchange. Kibuthu (2005) observes that there is a general shortage of well-trained manpower to police and enforce the rules. Consequently enforcement actions are rare and thus abuse is not uncommon. This leads to a strain in the confidence level of the investors and some listed companies continue to operate under compromised corporate governance structures. In addition to this some stock markets subject their participants to multiple regulators such that it is unavoidable to experience regulatory complexities, uncertainties and increased costs of compliance (Asea, 2003). For instance in Kenya both the CMA and the NSE serve as regulators each with its own set of requirements for listing, membership and participation. Despite the fact that there are similarities

in these requirements, the multiplicity tends to have a confusing effect on the present and potential participants.

Political uncertainties and economic policies present in some of the African countries have led to a decline in investor confidence due to a risk in the deterioration in the business climate as noted by Kibuthu (2005). The subsequent result of this is poor performance of the stock markets. Using Kenya as an example, prior to the general election of 2002, the business climate was slowly halting with the eventual withdrawal of donor funding. The stock market had a consistently declining performance due to the policies that had been adopted by the regime then. After a change in political guard there was renewed hope and market confidence with the entry of a new regime. In the subsequent years, the "new" government engaged in several privatization initiatives and that was when there was the phenomenal KenGen IPO in 2006 which was oversubscribed and it created awareness on stock market trading for the majority of retail investors who were able to make the minimum investment. Senbet & Otchere (2008) agree with this perspective with the argument that the African stock markets are abundantly endowed with abrupt changes in government policies and at times unfavourable political climate. The case in point used is Zimbabwe's downturn due to the dramatic price swing in the wake of the government farm and pension policies[3]. This had the effect of moving a market that had previously grown (1996) by a phenomenal 89.5% down by more than 50% by the last quarter of 1997.

2.6   An analysis of Stock Market Development Indicators

Economic and financial literature in the last two decades has been engrossed in the search of the relationship direction between the financial system and the country's economic development. The financial system constitutes of the banking system and the capital markets system. Historically as Levine & Zervos (1996) observed, the banking system has been the focus of research when discussing the development of the financial system. Seminal research by Bagehot (1873) and Schumpeter (1911) placed emphasis on the critical importance of the banking system in the economic growth because as at the time there was little or no consideration of the use of capital markets.

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[3]These government policies refer to: i) the land reform to evict white-settlers from more than 1500 commercial farms; and ii) a decision by government to pay $240 million in pensions to disgruntled veterans of the Zimbabwe independence war .

However, even with the historical focus on the banking system there has been growing theoretical literature on the importance of the development of stock markets for countries' economic growth. To determine the relationship between these two factors, stock market development and economic growth, researchers such as Levine &Zervos (1996), Demirguc-Kunt& Levine (1996) measured the stock market development using market capitalization as a percentage of the country's Gross Domestic product (GDP). However, in their course of study they found that the development of the stock market is a phenomenon that cannot be explained using a single measure and thus in a different paper, Demirguc-Kunt& Levine (1996) came up with a set of stylized facts. In their analysis, Demirguc-Kunt& Levine (1996) compared stock market development to the level of economic development and described it as a complex and multi-faceted concept that no single measure could capture all the aspects of stock market development. The indicators used in their study as measures to come up with the stylized facts included: *stock market size, liquidity, market volatility, market concentration, asset pricing efficiency, regulatory and institutional development and conglomerate indexes* that aggregate the information contained in the other measures.

Levine &Zervos, (1996) followed a similar argument to discuss the importance of the stock market in long run economic growth. They observed that theory does not provide a unique concept of measure of stock market development, but does suggest that stock market development can be measured using *stock market size, liquidity and international integration*. In the same paper they adopted the conglomerate indexes constructed previously by Demirguc-Kunt& Levine (1996) to show the relationship between the specific measures of stock market development of size, liquidity and international integration and the long-run growth of the economy.

Stock Market Development as the dependent variable has been measured by different authors using various indicators as noted above; both quantitative and qualitative. Yuriy (2008) noted that in order to measure the speed and level of development of the stock markets both qualitative and quantitative measures should be used. However several of the qualitative indicators of stock market development such as *market concentration, regulatory and legal framework and liquidity* are more often than not complementary to the quantitative indicators of *stock market size: market capitalization and number of companies listed* (see appendix 2 for a tabulated representation of the measures for stock market development in developing countries).

Therefore in this section will discuss the two aspects of stock market size as measures of stock market development: market capitalization and number of companies listed and then discuss the indicator of stock market liquidity showing how the qualitative factors are complementary.

2.6.1   Measures of Stock Market Development

Based on the studies cited in the above section, it emerges that there are two main measures or indicators of stock market development in terms of market size: ***the market capitalization as a percentage of GDP and the number of listed companies***. The following part *discusses in detail each of these measures.*

2.6.1.1 Market Capitalization as a percentage of GDP

Market capitalization has been defined by Demirguc-Kunt & Levine (1996) as the aggregate value of a company or stock. It is obtained by multiplying the number of shares outstanding by their current market price per share. Different researchers (Demirguc-Kunt & Levine, 1996; Li, 2002; Yartey & Adjasi, 2007; Yartey, 2008; Yuriy, 2008; Allen, Otchere & Senbet, 2010) in examining the development of the stock market with reference to economic growth have measured stock market development using the market capitalization as a percentage of GDP. This indicator has been frequently preferred by researchers as it shows the relative weight of the stock market in the whole economy as noted by Yuriy (2008).When expressed as a percentage of the country's gross domestic product (GDP), the value for market capitalization ratio is given as the value of listed shares divided by GDP.

Allen, Otchere & Senbet (2010) measured the depth of African stock markets by the market capitalization and the number of listings. In their analysis, Allen et al. (2010) found that the African stock markets were segmented in terms of sub-regions where they noted that there has been a steady increase in the market capitalization in these sub-regions[4]. Using the market capitalization measure for the dependent variable, the northern and the southern regions of Africa were ranked the highest in market capitalization driven by two countries; Egypt and South Africa respectively. However in their report, Allen et al. (2010) agree with Yartey (2008) as they use market capitalization side by side with the number of listings. Yartey (2008) stated that he used the market capitalization measure as it is less arbitrary but qualified the use by affirming Demirgüc-Kunt & Levine (1996) where they stated that the two measures of stock market

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[4] Sub-regions are: Northern Africa; Eastern and Central Africa; West Africa and Southern Africa

development are highly correlated and can be used to arrive at similar results. Yartey (2008) further noted that although the market capitalization measure has indicated a rapid development in the African stock markets it did not necessarily mean that the markets are mature. Maturity in terms of the capital markets he referred to trading activity and stock counters activity. He stated that the market capitalization is more often than not accounted for by a few actively traded stocks, which essentially account for a considerably large part of the market capitalization ratio.

On a global scale, Li (2002) in determining stock market development used the market capitalization measure in a slightly different way. She looked at the increase in market capitalization toward the maximum possible capitalization[5] of the specific market for both developed and developing economies. Using this valuation she finds that the valuation technology used would have a direct impact on the stock market development. The valuation technology was defined using three measures; the capital markets liberalization, improved legal systems and better institutions.

2.6.1.2 Number of Listed Companies

Capasso (2006) defined the measure of number of companies as the physical count of companies listed on a country's stock exchange at any particular point in time as an indicator of stock market development. In his study, Capasso (2006) looked at stock market development in terms of market size and considered the expansion of the equity market which he measured using the number of companies listed. He found that the development of a country's stock market, i.e. the more the number of companies listed, has a strong positive correlation with its level of economic development. This analysis is in agreement with several authors[6] who have tried to determine the relationship between the stock market and economic development.

Yartey (2008) while agreeing with Capasso (2006) established that the expansion of the stock market, i.e. its growth in physical count of companies listed is an aspect of the development of the stock market. In this regard, he offered the explanation as to why over the last twenty or so years governments have been keen on growing their capital markets through encouraging the use of equity listings as a source of funds. Pagano, Panetta & Zingales (1998)

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[5] This refers to the use of frontiers (generalization of production frontier models) as the maximum possible level that a stock market can attain in terms of its outputs (measures of stock market development; market capitalization) given the inputs (i.e. the macroeconomic and financial characteristics) (Li, 2002).
[6] Atje and Jovanovich 1993; Demirgüç-Kunt and Levine 1996a,1996b; Demirguc-Kunt and Maksimovic 1996; Korajczyk 1996; Levine and Zervos1996, 1998)

had earlier established that governments were encouraging the use of capital markets to raise capital through the privatization of state-owned corporations. The aforementioned authors although agreeing to the use of the market capitalization measure of stock market development as it is un-arbitrary, add that there is a need to look at the development of the stock market in terms of listed companies. This is echoed by Yartey & Adjasi (2007) where they established that the stock market may have a very high level of capitalization but very few companies listed i.e. limited options for trade in terms of equity counters thus not necessarily developed as is the case in many African exchanges.

In determining the slow rate of listing on the public markets of African states Andrianaivo & Yartey (2009) found that institutional investors and governments with minority stockholdings are not active traders in the markets. In addition to this the lack of experience and resources for issuing shares has prevented the effective use of exchanges in these markets. In their report, Andrianaivo & Yartey (2009) established that approximately 50% of all the listed companies in the entire African continent are accounted for by South Africa (JSE) and Egypt (CASE). However, in an analysis on why companies go public Pagano, Panetta, &Zingales (1998) found that the internal framework of the specific company's financial needs is a major determinant. This argument is picked up by Capasso (2006) where he finds that the development of the banking sector in any economy is directly related to the number of companies listed on the exchange due to the companies' need for balancing in the debt and equity financing mix. It is noteworthy that this element of considering issues specific to companies has not been given much consideration in literature, which is possibly an explanation as to why the development measure of number of listed companies has rarely been used. The present study is therefore keen to follow up on these issues as it is inclined to measure the dependent variable using the number of companies listed. In considering the Nairobi Stock Exchange, only Ngugi & Njiru (2005) discussed the trend in company listings. They however mainly focused on the market specific factors particularly, *political risk; privatization programs and the regulatory and legal framework in which the exchange operates*.

2.7   Determinants of Company Listing

According to Capasso (2006) the dependent variable indicators of size, i.e. the stock market capitalization and the number of listed companies, are highly correlated and thus substitutable. Capasso (2006) further determined that the decision of a company to go public and

to issue shares is a complex one and it depends on the market specific factors as well as the internal environment of the company. However, in practice the decision to enter the stock market also involves the comparison of a wide array of costs and benefits in a company attempting to form the optimal financial or capital structure. In an analysis of South Africa's stock market development, Yartey (2008) adjusted the Calderon-Rossell model of 1990 which was a behavioural structural model of stock market development. In this model the main determinants of stock market development considered were *market liquidity and economic growth*. Yartey's modification in 2008 incorporates other financial, economic and institutional variables, particularly *banking sector development, political risk and private capital flows* to explain stock market development in emerging markets. With regard to the institutional variables, the institutional quality has been assessed with reference to the *regulatory and legal framework* as well as *market infrastructure*.

Capasso (2006) further established that the development of the stock market is not only driven by the macroeconomic phenomenon as has been the major focus of the above-mentioned studies. Those he called institutional methodologies to studying stock market development. Capasso (2006) explained the other school of thought on stock market development that analyse the corporate financing decisions of individual companies. These decisions as found by authors aim at finding out how the financing choices change with capital accumulation. This second school of thought he classified as the instrumental methodologies. Pagano, Panetta & Zingales (1998) in a detailed empirical analysis of the major determinants of IPOs, established that there are three major factors that determine a company's choice to go public*: the stock market valuation of other firms in the same industry, the company's size* and *the destination or use of raised funds*.

Based on Altman's 1968 multiple discriminant analysis, the determinant factors to be discussed in this study will be based on their frequency in previous research. In addition to this, it is necessary to consider the fact that the NSE is a stock market in a developing country in Africa, thus having unique challenges accruing to it. Following Andrianaivo & Yartey's IMF working paper of 2009 (09/182), Yartey (2008) and Yartey & Adjasi (2007) the market specific determinants chosen for this study are: **stock market liquidity, stock market volatility, market infrastructure, the regulatory and legal framework and political risk**. From literature there are very few studies (Capasso, 2006; Pagano, Panetta, & Zingales, 1998) that have considered the

company-specific factors that may affect the listing of companies. The main factors identified are: ***the corporate financing decisions, profitability, size and age of the company***. As this gap has been identified, the present study will aim at filling it by establishing whether these company specific factors are considered by companies in Kenya and are thus affecting the development of the NSE.

In line with the fact that the measures of stock market development in terms of size (market capitalization and number of listed companies) are correlated, the present study opts to shift from the conventional measure of stock market development of market capitalization to the number of companies listed on the exchange as it has been rarely examined. Testing the identified determinants in relation to the number of companies listed will also be a way of testing for convergent validity (Trochim, 2006) of previous work using the market capitalization measure of stock market development.

2.7.1 Market Specific Factors

These are factors that are exterior to the companies but characterise the stock market. They have an influence in determining the use of capital markets by companies as sources of funds hence directly determine the development of the market in terms of number of companies listed. They are outlined below:

2.7.1.1 Stock Market Liquidity

Schwartz (1991) defined liquidity as the ability of individuals to trade quickly at prices that are reasonable in the light of the underlying demand/supply conditions. Demirgüc-Kunt & Levine (1996) picked up this definition stating that liquidity simply refers to the ability to easily buy and sell securities. Yartey (2008) followed suit and defined stock market liquidity as the ease and speed with which economic agents can buy and sell securities. To ideally determine stock market liquidity, these authors agree that the concept would comprehensively include quantifying all the costs associated with trading, plus the time costs and the uncertainty of finding a match to settle the trade.

Demirguc-Kunt & Levine (1996) established that from liquid stock markets, companies enjoy permanent access to capital raised through equity issues. Since the market will provide a platform by facilitating longer-term, more profitable investments, liquid markets improve the allocation of capital and enhance prospects for long-term economic growth. Further, by making

investment less risky and more profitable, stock market liquidity can also lead to more savings and investment. Investors will come if they can leave. Garcia & Liu (1999) established that many profitable investments require a long-term commitment of capital, but the investors are often reluctant to relinquish control of their savings for long periods, as this bears higher default and liquidity risks. Therefore without liquid stock markets the occurrence of investments to high return projects would be curtailed.

In consideration of the flipside as presented by Levine (1991), liquid stock markets allow for investors to alter their portfolios quickly and cheaply thus making it less risky and offer opportunities for longer-term investments. This is echoed by Senbet & Otchere (2008) who established that where a market cannot provide liquidity and possible exit strategies then there is a gap in its functional efficiency. Consequently the more liquid the stock market the larger the amounts of savings channelled through the stock market and the higher the opportunities are for it as a source of capital for companies. In this regard it is expected that there would be higher market capitalization and since measures of stock market development measures are correlated, ideally an increase in the number of listed companies would be cited.

Demirguc-Kunt & Levine (1996) proposed two measures of stock market liquidity to check development of stock markets in their study: i) the total value traded/GDP which is the total shares traded on the stock market divided by GDP to give a reflection of the market trading as a share of national output and; ii) the turnover ratio which is the value of total shares traded divided by market capitalization. Levine & Zervos (1996) in their study also measured stock market liquidity in the same two ways; the total value of stock traded as a percentage of GDP in order to give an indication of the value of equity transactions relative to the size of the economy; and the turnover ratio given by the total value traded as a proportion of market capitalization. Garcia & Liu (1999) also measured stock market liquidity using the same two measures of total value traded as a percentage of GDP to check the value of equity transactions relative to the size of the economy; and the turnover ratio to determine the value of equity transactions to the size of the market. They however stated that these measures of liquidity do not directly measure the ease with which investors can buy and sell securities at quoted prices. These measures of liquidity rather, measure the degree of trading in comparison to the size of both the economy and the market respectively.

Due to the focus of this study which is the development of the stock market based on the activity and presence of companies, the stock market liquidity will be measured using the turnover ratio. This specific measure has been chosen as it is measure that focuses on the market wide perspective in reflecting the stock market liquidity (Garcia & Liu, 1999) as it is based on the market capitalization. Also bearing in mind the fact that this study does not have a focus on the country's GDP hence the measure of market value on an economy wide scope will not be used. The hypothesis to be tested is:

H$_1$: A positive relationship exists between stock market liquidity and company listings

2.7.1.2 Stock Market Volatility

Guo (2002) defined stock market volatility as the systematic risk faced by investors who hold a market portfolio. He established that there is a link between the volatility of the market and the cost of capital. An increase in market volatility raises the compensation that shareholders demand for bearing the systematic risk. Before a company issues equity it has to consider the return it would be willing to offer its investors. According to Guo (2002) therefore there would be reduced investment and use of capital markets by the corporate sector. The measure of stock market volatility used by Guo (2002) was borrowed from Schwert (1989) where an extensive study of quarterly observations of the stock market returns based on the stock market index.

Capasso (2006) stated that that the volatility of stock prices as an aspect of stock market development is increasingly receiving attention in literature. His findings agreed with Demirguc-Kunt & Levine (1996) where he noted that, in itself, the volatility of stock returns is not an indicator of stock market development but rather affects the return on investment and growth by disturbing the average portfolio risk. Capasso (2006) established there are three different ways that volatility can impact investment and growth: it may cause instability in the financial system; it can decrease the supply of financial funds and raise the cost of access to capital by discouraging savings, and; it can cause misallocation of resources to the most profitable investment by the equity market as based on price signalling. The present study is mainly concerned with the second problem where volatility in stock prices can raise the cost of access to capital as it decreases the supply of financial funds in the capital markets. Companies would be deterred to list on the public exchange causing stagnation in the development of the stock market due to the heightened cost of access to capital. this is a similar argument that Guo (2002) had

used in relation to cost of capital where he noted that a lack of sustained buoyancy of the market tends to increase it thus deterring investors from the market as it would be too expensive.

In contrast to the above studies, Levine & Zervos (1998) did not find any significant relationship between volatility and economic growth as determined by stock market development. They used a 12-month rolling standard deviation estimate on stock returns to measure volatility, which they regressed on the rate of growth to obtain insignificant results.

Senbet & Otchere (2009) in assessing the viability of African stock markets as investment opportunities established that the lower the volatility of stock returns the lower the risk associated with the use of capital markets. They noted that volatility of African markets as measured using a monthly rolling standard deviation has overtime (1997-2007) been decreasing thus suggesting that the risk associated with these markets has declined over time. They offered that there are specific industry sectors[7] that may offer opportunities for global investment which can be initially accessed through private equity channels and eventually through the stock market as more firms in the thriving sectors get listed.

The choice of whether to use the volatility index measure as a representative of the stock market as or the standard deviation measure of annualized returns will be based on the ease of access of the data on stocks prices movement. Bitok, Kiplangat, Tenai, & Rono (2011) used the volatility index for the NSE 20-share index to determine the confidence of investors in the NSE. As the present study is focused on the NSE as well, the volatility index shall be considered. The hypothesis to be tested is:

H₂: A negative relationship exists between stock market volatility and company listings

2.7.1.3 Regulatory and Legal Framework

The legal and regulatory framework for the stock market as defined by Asea (2003) refers to an enabling environment to encourage the participation of enterprises in the stock exchange. This framework is comprised of elements defined by the government that facilitate the functioning of the market; i.e. enhance functional efficiency. Yartey (2008) outlined the elements that constitute the legal and regulatory framework as: *adequate disclosure, listing requirements and fair trading practices*. Mugo (2009) cited the features of a well set up legal and regulatory

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[7]The sectors suggested were: banking and insurance, telecommunications, mining and privatizations.

framework as: self-regulatory, transparency and disclosure in the market, level playing field and compliancy to the recommended reporting standards (IFRS[8]).

Pagano, Panetta, & Zingales (1998) established that the functioning of the stock market enabled by the framework provided has an effect on whether or not the stock market provides a platform as a source of funds (cheaper long term) to enable the company re-balance their capital structure and thus diversify their risk. The reasoning for this is that it is the environment that influences the confidence levels of the investors both domestic and foreign and thus an enabling environment provided by the government's legal and regulatory framework would have a direct effect on development. Pagano *et al.* (1998) found that a properly set up legal and regulatory framework for the functioning of the stock market should in time enable flow of private cash flows both from the domestic and foreign investors.

With further reference to capital flows, Perotti & Laeven (2002) in their study established that stock markets responded best to sustained reform policies through which they create a process of gradual confidence building. This process induces investors to invest progressively more and thus increase market integration through liberalization of capital flows. For this to happen, Perotti & Laeven (2002) determined that a government needs to ensure it commits itself to market-oriented policies. In order to represent commitment to the course they proposed that the framework should represent a stable policy of protecting property rights such that once companies are privatized the government should not be in a position to regain control.

Perotti & Oijen (2001) in studying the use of privatization to boost the use of stock markets to raise capital found that the regulatory and legal framework plays a major role in encouraging it as it promises a functional system to operate in. Pagano *et al*., (1998) had earlier established that the direct benefits to the stock market drawn from well set up framework included increased market capitalization through new public listings. Thus it is expected that a positive relationship between a functional legal and regulatory framework and stock market development exists. The following hypothesis will be tested:

H₃: A positive relationship exists between the legal and regulatory framework and company listings

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[8]International Financial Reporting Standards (IFRS) are standards and interpretations used in International Reporting and are adopted by many countries. Kenya adopted the standards of reporting in 1999, previously the International Accounting Standards (IAS) were used.

2.7.1.4 Political Environment

Girma & Shortland (2008) characterised the political environment as based on the degree to which narrow elite controls the levers of power and the level of regime stability on changes in financial development". Yartey & Adjasi (2007) in assessing the challenges facing African stock markets used the term political risk and characterised the political environment based on *law and order*, *democratic accountability* and *bureaucratic quality*. Both these studies found that the political environment plays a major role in the course of the market's development. The reason Yartey & Adjasi (2007) established was that the appeal and confidence in the equity market is broadened by efficiency and accountability which are elements that raise or lower political risk, are highly rated among investors. In the same study, Yartey & Adjasi (2007) therefore found that African economies are plagued with uncertainty in the political environment and they determined that as political environment in the region is solved over time, equity investment becomes more attractive. Girma & Shortland (2008) contributed to this literature by evaluating the influence of the political system in financial development as they determined the effect of the political variables. Their results showed that the degree of democracy and political stability are significant explanatory factors in determining the speed of financial development in an economy.

Girma & Shortland (2008) tested the hypothesis that "the political leaders choose a level of financial development which best serves the interests of their support base". For this they found that the more representative political systems (i.e. democratic structures) tend to foster faster financial development i.e. both banking sector development and the financial markets. The dependent variable of the financial market was measured using the market capitalization as a percentage of the GDP and the degree of political influence measures were based on the variables democracy of the polity and stability. They found that in economies where there was an attempt to democratize a polity, a positive influence was established on the subsequent financial development, i.e. an increase in the market capitalization to GDP as opposed to when the regime was autocratic.

McGuire & Olson (1996) had earlier established that in unstable political systems the leaders may attempt to "confiscate" any capital goods which have a resale value greater than the income stream they generate over the time period remaining to the end of their term. In this argument, they found that the financial assets are as affected; hence the market capitalization is driven downwards with a reduced number of transactions by hoarded stocks as it negates the

forces of demand and supply. Yartey & Adjasi (2007) established that the direct effect this has on stock market development is to increase the cost of equity and as such investors need compensation for the cost attached to political risk. Girma & Shortland (2008) furthered this argument by adding the liquidity strain that this kind of political behaviour presents on the market. Perotti & Oijen (2001) term political risk in this situation as a priced risk and offer that the resolution of such risk is endogenous to the privatization process which directly fuels stock market development. Andrianaivo & Yartey (2009) also used the political risk variables measures tested by Yartey & Adjasi (2007) based on the International Country Risk Guide (ICRG). Their results showed that for a one percentage point improvement in the risk rating for a country's political risk rating there is a percentage point increase of 0.9 in the stock market development. From this it is evident that political environment is positive and significant as a predictor of stock market development. This therefore implies that in the emerging markets and specifically African markets the political stability of the country.

From the literature the two different ways of measuring the political environment draw similar results, i.e. the political environment of the country has a significant influence on its financial development. The variables used by McGuire & Olson (1996) and Girma & Shortland(2008) are favoured in this study over the ICRG index used by Yartey & Adjasi (2007) and Andrianaivo & Yartey (2009) as they have been used by the World Bank in classification of countries and ranking their financial development by the World Bank. These variables of different polities, i.e. based on the representativeness influenced by systems of government have are easily available for the time period under study and thus will be used. Their definition is given in appendix 5. The following hypothesis can be derived:

H_4: A positive relationship exists between a favourable political environment and company listings

2.7.2 Company Specific Factors

Most of the researchers in discussing the factors influencing stock market development, have considered the external environment viewpoint by focusing on the "institutional factors" (Capasso, 2006). These factors are what have been discussed in the above section as the market specific factors. Pagano, Panetta, & Zingales (1998) and Capasso (2006) put forth the argument that company specific factors have been neglected in the previous studies and there is a need to focus on them as they form an integral part of decision making when a company intends to use

the capital markets and as such affect the development of these markets. The specific features offered by some researchers in support of the company specific factors include: capital structure, company size, company age and profitability. Since there is scanty literature analysing these issues the present study intends to consider these four aspects in a slight focus shift so as to make a contribution to knowledge.

2.7.2.1 Capital Structure

A company's capital structure as defined by the renowned economists Modigliani& Miller (1958) refers to the mix of debt and equity a company maintains. Titman & Wessels, (1988) in evaluating theories on capital structure suggested that firms select capital structures depending on the various costs and benefits associated with debt and equity financing. In a more recent study, Demirguc-Kunt & Maksimovic (1996) found that the financing choice of the company is influenced by the financial market development. Demirguc-Kunt & Levine (1996) established that the improvement in the functioning of the stock market produces a higher debt-equity ratio in firms. This was based on the pecking order theory of corporate financing proposed by Donaldson (1961) where internal funds are preferred to external funds and that most companies avoid issuing new shares in consideration of issue costs. In this regard, the capital markets are seen as a source that the companies shy away from and opt for revenue surplus then debt financing and in the very last place equity financing.

However, researchers have found that equity financing and debt financing are complements as companies when engaging in physical development opt for debt financing over equity (Demirguc-Kunt & Levine, 1996; Pagano, Panetta, & Zingales, 1998; Capasso, 2006). The reasoning for this is that industrial and physical capital development initiatives are debt-oriented as it is cheaper than equity. Capasso (2003) had earlier established that the optimal capital structure desired by a company to finance risky investment projects would determine its proportionate use of equity and debt financing. In this regard, the rebalancing of the capital structure initially funded using debt financing would drive a company to issue stock on the equity market. This need to rebalance has been influenced by the high cost of bankruptcy associated with debt financing as established by Capasso (2006).

In an analysis on why companies go public Pagano, Panetta, & Zingales (1998) found that the internal framework of the specific company's financial needs will determine their listing or lack thereof on the public market. This argument is picked up by Capasso (2006) where he

finds that the development of the banking sector in any economy is directly related to the number of companies listed on the exchange due to the companies' need for balancing in the debt and equity financing mix. Although before a company issues equity, Shih & Fan (2009) determined that corporate managers would closely examine certain external elements such as the exchange rate movement, internal rate of return of the IPO to evaluate the performance of the stock market in order to list. This is in agreement with Demirguc-Kunt & Maksimovic (1996) who found that the financing choice of the company is influenced by the financial market development. They established that particularly the stock market development has an effect on the financing choices of companies. This is because of the performance determinants that constitute the cost of equity and will enable the company's survival after the IPO. This situation, however, brings forth the conflict of a directional relationship between the development of the stock market and the financing choices. The present study, will consider the position of Pagano *et al.* (1998) where the capital structure desired by the company affects the development of the stock market through the consideration of going public. The hypothesis developed is:

H₅: A positive relationship exists between a company's capital structure and stock market development

2.7.2.2 Company Size

Pagano et al. (1998) in their research to determine the relationship between economic growth and financial markets development; company size was found to be the second most important determinant for a company listing. They established that the size of the company as measured by asset base (total assets) increases the probability of the company's decision to go public. The size of the company is determined as a consideration following the confirmation of the fixed costs of listing and the economies of scale enjoyed by larger companies than smaller companies. Larger companies are seen to be able to absorb the costs and fees associated with the listing process as found by Carpenter & Rondi (2006). In the same light Smitas & Kenourgios (2005) had established that small and emerging companies are often considered to be financially constrained, thus disabling their access to the stock market through IPOs. A major component of the costs of listing is the under pricing of the IPO due to adverse selection problem arising from information asymmetries. Carpenter & Rondi (2006) established that smaller Italian companies tended to be disadvantaged in that the direct cost of going public was estimated at slightly more than 4% of the gross proceeds of the IPO. Therefore, the smaller companies are not in a position

to shoulder this burden and as such are locked out of the equity market as compared to the larger companies. The institutional viewpoint also sheds light in this regard, in that the requirement in terms of asset base to support a company's listing may be prohibitive as noted by Carpenter & Rondi (2006). The hypothesis developed therefore is:

H_6: A positive relationship exists between company size and stock market development

2.7.2.3 Age of the Company

The age of the company is used to refer to the length of time for which the company has been in existence, i.e. since its establishment or incorporation. Ritter (1991) in studying the effect the age of a company would have on the underwriting price prior to an IPO found that a higher company age eases the company's underwriting negotiations as the information asymmetry is lower and thus research costs are lower. Further to this the company with a higher company age will have a relatively higher market visibility and reputation thus a higher ability to attract investors to itself in the IPO as compared to a company with a lower age. Therefore, Pagano et al. (1998) found a positive relationship for their hypothesis that the longer the company has been in existence the more likely it would be to publicly list.

Pagano et al. (1998), Ritter & Welch (2002), Capasso (2006) and Yartey (2008) all offered the explanation for older companies going public in comparison to the younger ones based on the regulatory requirement of positive annual earnings for a consecutive three years prior to listing. These researchers agreed that the length of time that a company has been in existence would have significant influence on the decision of a company to go public or not. Furthermore, these researchers add that the age of a company could give it mileage in terms of it being recognized in the market by investors. Shih & Fan (2009) stated that a high company age indicates lower operational risks. Further to this they offered that where the company has been in existence for a longer time there is reduced uncertainty among investors as there is more information circulated outside the company.

The price at which the company's stock will be issued at in an IPO has been found to have a negative correlation with the length of establishment of the company (Hung et al., 2003). In their study, empirical evidence revealed that the shorter the time is between the company's establishment and its IPO issue the higher the degree that the company will issue their stock at a low price in order to attract investors. This has the direct effect on the development of the stock market as companies will not be willing to list if they have not been in existence long enough to

reduce investor uncertainty with reduced information asymmetry and as well lower operational risks. The hypothesis developed therefore is:

H₇: A positive relationship exists between a company's age is and stock market development

2.7.2.4 Profitability

According to Pagano, Panetta & Zingales (1998) the profitability of a company measured using the Profit after Tax may have an effect on the probability of a company going public. They determine that in the initial place the profitability of a company would be bound to be positively correlated with the company listing because of the effect of listing requirements. They establish that there is a need to control for the listing requirements by sampling companies that have satisfied these requirements. In doing so, Pagano et al. (1998) found that the predicted effect of profitability on the company listing was still ambiguous. The ambiguity was explained as follows: on the one hand the more profitable a company is the less likely it would need external equity, i.e. the lower the probability of listing. On the other hand where a company is experiencing a temporary surge in profits may list in the expectation that their going public would increase profitability. In determining the success of companies after listing, Klein & Mohanram (2006) found that those companies with revenues but no earnings presented similar failure risks as those that had no revenues. Carpentier & Suret (2011) therefore hypothesised and proved that it is necessary for a company to report positive earnings (consequently revenues) prior to listing in order to increase success rate and thus use of the capital market. The direct relationship to the stock market development is seen as the companies list, there is a link between pre-profitability of the company and profitability after listing. The hypothesis to be tested is:

H₈: A positive relationship exists between a company's profitability and stock market development

2.7.3   Control Variables

In addition to the above quantitative variables to be used to determine the development of the stock market, the following dummy variables have been introduced to this study in order to capture the qualitative aspects that may have an effect on the company listings.

C-Industry: Pagano *et al.* (1998) established that the higher the valuation of companies in a given industry, the higher the probability it would be for a company in the industry to go public. This confirmed Pagano (1993) where he found that a company's issuance of new equity is essentially a matter of strategic complementarities in the market, and the optimal solution to problems of information asymmetries. The NSE had four industrial segments in the main investments market segment but only three segments were to be considered. However it is noteworthy that in the course of this study the NSE re-classified the listed securities into twelve sectors. The companies to be tested will take on values determined and coded for each industry sector ranging from 1 to 12.The hypothesis tested is:

H_9: A positive relationship exists between a company's industry classification and stock market development

C-Automation: was defined by Yartey & Adjasi (2007) involves the implementation of computerized and electronic systems for enabling the processes of trading, clearing and settlement. The use of automated systems helps reduce the costs and inefficiencies that accrue to manual systems in the stock market making it more attractive to the private sector. Allen, Otchere & Senbet (2010) established that the manual systems that are used by most stock exchanges pose an impediment to the operational efficiency and thus to the development of the market. This is observed because these manual systems are seen as bottlenecks in terms of slowing down the operations, i.e. trading and production of information for the stock market. Allen, *et al.* (2010) noted that there has however been a gradual improvement in the adaption of automated trading systems and clearing and settlement systems among the African stock markets, particularly stock markets in Sub-Saharan Africa.

The participation of foreign investment and integration of markets is dependent, to a fairly large extent, on the automation of the stock exchange mainly because of the ease and cost of transaction. From appendix 3 Senbet & Otchere (2008) shows a list of African stock exchanges giving a feel of the level of adaption of automated systems especially in the trading and clearing and settlement processes. According to the NSE annual reports (2008) the automation of the clearing and settlement and trading systems as well as the introduction of the CDSC (Central Depository Settlement and Clearing System) has improved the operational efficiency of the market. This should ideally have a positive effect on the development of the

stock market such that there should be recorded higher numbers of companies listing as well as the market capitalization. The hypothesis developed thus is:

H_{10}: A positive relationship exists between stock market systems automation and stock market development.

C-Tax Incentive: this variable is introduced in this study to determine whether the tax incentives offered by the government for companies going public have an effect on the listing of companies and thus an effect on the stock market development. Ngugi & Njiru (2005) in an earlier study on the growth of the NSE primary market had established that companies had little or no regard to for the tax incentives offered by the government for companies that listed. The present study has its point of departure from Ngugi & Njiru's work of 2005 to check whether this has changed as the initial stand was that the tax incentives had little to do with increasing the number of listings. This variable takes a value of 1-if the response is positive, i.e. tax incentives favour stock market development and 0-otherwise.

The hypothesis tested is:

H_{11}: Tax incentive is negatively related to stock market development

2.8   Conceptual Framework

The conceptual framework has been drawn from the discussion in the review of literature where the variables to be used in the study have been highlighted. It is a visual representation of the relationship that the study intends to establish between the dependent variable under study i.e. the level and pace of stock market development of the Nairobi Stock Exchange and the possible explanatory variables upon which the hypotheses for the study have been drawn.

Independent Variables:

Market Specific Factors
Stock Market Liquidity (SML)
Stock market Volatility (SMV)
Legal and Regulatory Framework (LRF)
Political Environment (PE)
Company Specific Factors
Company Size (SIZE)
Company Age (AGE)
Capital Structure (CS)
Profitability (PAT)

Dependent Variable:

Stock Market Development (SMD)

Control Variables:

Industry (CInd)
Market Automation (CAtm)
Tax Incentives (CTxn)

2.8.1   Research Model

Based on the conceptual framework above, the relationship between variables can be written in the form of a function as follows:

SMD$_{it}$ =f (SML, SMV, LRF, IQ, CIND, CAM, CTX)

Where:

SMD: Stock Market Development measured by the Number of companies listed

SML: Stock Market Liquidity measured by the turnover ratio

SMV: Stock Market Volatility measured by the movement of the 20-share index

LRF: Legal and Regulatory Framework determined based on the listing requirements

PE: Political Environment determined by the World Bank classification of country risks

Control Variables

CInd: control representing industry

CAtm: control representing stock market automation

CTxn: control representing taxation

The resultant equation is as follows:

$$SMD_{it} = \beta_0 + \beta_1 SML_{it} - \beta_2 SMV_{it} + \beta_3 LRF_{it} + \beta_4 PE_{it} + \beta_5 CInd_{it} + \beta_6 CAtm_t - \beta_7 CTxn_{it} + \varepsilon$$

The positive sign in the equation above is based on the expectations of positive relationship between the independent variables and the dependent variable derived from the hypotheses to be tested.

2.8.2   Operationalization of Variables

This is the process of defining the variables as measurable factors.

2.8.2.1 Dependent Variable

Stock Market Development refers to both the speed and level at which the stock market is increasing in size and value. Several authors (Demirguc-Kunt& Levine, 1996; Li, 2002; Yartey & Adjasi, 2007; Yartey, 2008; Allen, Otchere, &Senbet, 2010) have measured stock market development using the market capitalization ratio (as a percentage of GDP). The other measure put forth by finance and economics literature authors (Demirguc-Kunt& Levine, 1996; Pagano, Panetta, &Zingales, 1998; Ngugi & Njiru, 2005; Capasso, 2006; Andrianaivo & Yartey, 2009; Senbet & Otchere, 2009) is the number of companies listed. The present study intends to use company listings as the measure of NSE development as it will also show growth in terms of size.

2.8.2.2 Independent Variables

i)   Stock Market Liquidity

Researchers(Demirguc-Kunt& Levine, 1996;Levine &Zervos, 1996; Garcia & Liu, 1999; Yartey, 2008; Senbet, 2008; Senbet & Otchere, 2009) agree that stock market liquidity is measured in two main ways: i) value traded which is the total value of shares traded/GDP and; ii) the turnover ratio which is the volume of shares traded/market capitalization. As the focus of this study is the development of the stock market based on the activity and presence of companies, the stock market liquidity will be measured using the turnover ratio. This measure has been chosen because it focuses on the market wide perspective of stock market liquidity based on the market capitalization as opposed to value traded which gives an economy wide perspective (Garcia & Liu, 1999).

ii)   Stock Market Volatility

Demirguc-Kunt& Levine (1996), Guo (2002), Capasso (2006) agreed that volatility in stock prices in itself is not a measure of stock market development, but rather the effect the lack

of buoyancy has on the returns and its relation to cost of capital. The main measure of volatility used in literature is the standard deviation of one of two things; either the annualized returns on stock prices of individual stocks or the movement of the share index used as a representative of the market. Demirguc-Kunt& Levine (1996), Capasso (2006), Senbet & Otchere (2009) used the annualized returns on a 12-month rolling average while Guo (2002); Bitok, Kiplangat, Tenai, &Rono (2011) used the share index on a quarterly basis to measure volatility. Both measures returned similar results. Therefore in the present study, since information on the 20-share index is relatively more accessible it will be used.

iv)   Legal and Regulatory Framework

Authors agree that a well-defined legal and regulatory framework provides for a better functioning stock market as it enhances functional efficiency. There are three main aspects that constitute the determinant policies for the legal and regulatory framework of the stock market; the disclosure requirements, listing requirements and the trading practices of the market (Pagano, Panetta, &Zingales, 1998; Perotti & Oijen, 2001; Perotti & Laeven, 2002; Yartey, 2008). Since these three aspects are correlated and move in the same direction, this study will consider the listing requirements as the measure for the legal and regulatory framework of the NSE to check how it affects the number of companies listed. A listing requirements schedule (appendix 4) has been created based on the listing requirements given by the legislative Capital Markets Act which are in line with the WFE standards.

v)   Political Environment

Various researchers have determined the political environment using the political risk. Two different ways of measuring the political environment: the ICRG index by Yartey & Adjasi (2007) and Andrianaivo & Yartey (2009) and the World Bank country risk measures based on government regimes (Polities) used by McGuire & Olson (1996) and Girma & Shortland (2008) have been identified. Since these measures draw similar results, i.e. the political environment of the country has a significant influence on its financial development; the variables used by McGuire & Olson (1996) and Girma & Shortland (2008) are favoured in this study over the ICRG index used by as they have been used by the World Bank in classification of countries and ranking their financial development by the World Bank. In addition to this they are easily available.

vi)   Company Size

The variable company size has been measured using various elements of the company by different authors such as asset base, share capital or revenue. Following Pagano et al. (1998), this study will use the natural logarithm[9] of the value of total asset base. This figure will be in keeping with the regulatory requirement for listing by the NSE.

vii)   Age

Authors Pagano et al. (1998), Ritter & Welch (2002), Capasso (2006) and Yartey (2008) agree that the length of time that a company has been in existence would have a significant influence on the decision of a company to go public or not. To measure the age of the company, two different formulae will be required for the two groups:

For the listed group age will be the natural logarithm of:

$AGE_{it} = T_0 + (T\text{-}3)$

Where:

AGE_{it}: the age of company i in time t

T_0 = the year of listing

T-3: three years prior to the company's year of listing.

For the non-listed group age will be determined by the total number of years that the company has been in existence since establishment.

viii)   Capital Structure

A company's capital structure is given by the leverage ratio, i.e. the debt-to-equity ratio of the company. This ratio has been used by authors (Demirguc-Kunt& Levine, 1996; Pagano, Panetta, &Zingales, 1998; Capasso, 2006) to establish the rebalancing effect that drives companies to go public. The debt-to-equity ratio will be used in this study, based in the listed companies as it is readily available from their financial statements due to mandatory disclosure.

ix)   Profitability

Pagano, Panetta, &Zingales (1998), Klein &Mohanram (2006), Carpentier & Suret (2011) all agreed that it is necessary for a company prior to going public should report positive

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[9]The Natural logarithm is being used in the study as a tool for standardizing the figures to be used in the regression analysis.

earnings not just revenues. This is because they established that a company may have revenues but are unable to report earnings as measured by the Profit after tax (PAT).

2.8.2.3 Control Variables

Industry: Pagano *et al.* (1998) established that the higher the valuation of companies in a given industry, the higher the probability it would be for a company in the industry to go public. This confirmed Pagano (1993) where he found that a company's issuance of new equity is essentially a matter of strategic complementarities in the market, and the optimal solution to problems of information asymmetries. The industry variable in this study has been used to control for the differences that may be industry-specific and thus affect the probability of listing of companies in specific industry sectors of the stock exchange. To capture the different industry sectors that are provided for in the NSE, the study will have the three sectors (agriculture has been eliminated) where each company will be given a value of 1 if it belongs to the sector and 0 – otherwise.

Stock Market Automation: Yartey & Adjasi, (2007); Senbet & Otchere, (2008) and Allen, Otchere, &Senbet (2010) all affirmed that automation affects operational efficiency of a stock market. This is because it helps reduce the bottlenecks associated with manual systems. The NSE first introduced a central depository settling and clearing system in 2006 and then followed a complete automated trading system in 2008. Market automation was considered based on two proxies: an automated trading system, and the use of a central depository settling and clearing system.

Tax incentives: Specific policies such as those to do with initial tax incentives for listed companies had little effect on significantly increasing the number of listings according to Ngugi & Njiru (2005). This dummy will be used to check whether this status has changed.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0   Introduction

The purpose of this study was to establish the specific factors that have influenced development of the Nairobi Securities Exchange (NSE) in terms of companies listed since its establishment in 1954. In order to attain this objective and answer the research questions, this chapter details the methodology as follows: the research design, population and sample; data collection tools used as well as the statistical techniques applied in establishing the hypothesized relationships between variables.

3.1   Research Design

Based on the objectives, the study addressed both quantitative and qualitative issues. A mixed research design was employed where both qualitative and quantitative research approaches were used. A quantitative research approach was used to answer the first research question which sought to find out the specific factors that influence development of the NSE and the extent of influence the specific factors have. Qualitative information was sourced from the unlisted companies to answer the second research question which aimed at finding out the opinions of the unlisted companies.

3.2   Target Population

The population was selected based on company size as required by the NSE listing requirements where a company must have an asset base of one hundred million shillings. In this regard the population selected constituted large private companies as well as those listed on the NSE. In addition to the asset base a large company was defined as one with more than fifty employees (Microfinance Risk Management, L.L.C., 2008). The population consisted of 218companies, a combined list from the corporate members - Kenya Private Sector Alliance (KEPSA -171) and those listed on the NSE (47). The KEPSA list was selected as it was the most comprehensive list of relatively large privately held companies with a cross-section of all industry sectors. The KEPSA list was filtered off companies that do not qualify to list, i.e. schools, societies, and advocacy firms. This filtration brought the population to a total of 134 companies. Further to this it was necessary to filter off the Small and Medium Sized Enterprises (SMEs). This brought the total population to 105 companies (47 listed and 58 non-listed).

3.3   Sample and Sampling Techniques

The sample drawn for this study was determined by data availability from the NSE and the CMA. In this sense, non-probability sampling was used to select those companies to be included in the sample. From these sources, complete data for the listed group companies was available from the year 2000. Therefore, twenty companies were sampled from the population constituting two groups: ten listed companies and a matched sample of ten non-listed companies (appendix 7).Since a matched sample was required, stratified sampling was done based on the industry segmentation of the companies. For the listed group, the ten companies that listed in the period between 2000 and 2009 were selected and used for the study. This was due to the fact that complete data for the listed group was available only for this period.

3.4   Data Collection

Data on the listed companies was collected from the prospectus and annual reports of the companies. These documents were sourced from the CMA library and the specific companies' websites. Data from the companies that are listed provided the relevant quantitative information. Data from the non-listed companies was sought using an electronic questionnaire (appendix 6). The questionnaire was prepared using the specific variables to be tested based on the listing requirements schedule (appendix 4). The questionnaires were sent via email after establishing contact through an initial phone call to the companies to determine the specific addressee. A follow up phone call was made to all the respondents and where they could not send back the questionnaire a personal visit to the company was requested. The aim of the call was to increase response rate and also enable follow-up on the progress of the questionnaire.

3.5   Data Analysis

In order to determine the specific factors and their effect on the dependent variable, multiple regression analysis was done using the Minitab statistical analysis program. Test of significance, p-value was determined at the 5% level of significance. To test the strength of the model the R^2 measure was considered for the regressions. For the qualitative data sourced through use of questionnaires, quantitative techniques were applied after coding and descriptive analyses measures were applied. To enable analysis and clarity of the information sourced; the Likert scale values used on the questionnaire were converted into percentages with equal interval assumption (Trochim, 2006). The percentages assigned were used to define the mean of the

respondents' views. This was done in order to clearly show the level of influence that each of the factors has on the companies' listing decision. It was also done so as to avoid possible erroneous assumptions that may be made with reference to likert scale values. The distribution was assigned as in table 3.1 below:

Table 3.1: Conversion of Likert Scale values

Likert Scale Description	Likert Scale Range	Percentages assigned (%)
Strongly disagree	1	0
Disagree	2	25
Neutral	3	50
Agree	4	75
Strongly Agree	5	100

Source: Survey Data, author computation

3.6   Data Presentation

Qualitative information was presented using tables, charts and graphs generated based on quantitative analysis using descriptive techniques. Regression analysis results for the quantitative data were presented using tables generated by the analysis tool.

CHAPTER FOUR
PRESENTATION OF RESEARCH FINDINGS

4.0   Introduction

This chapter presents the data sought, the analysis done and the results obtained. The data was analysed based on the specific objectives to be met and the variables selected for the study. The analysis was based on the specific objectives, which were: i) to identify the specific factors influencing company listing decision of non-listed companies; ii) to establish the listing benefits that would influence the listing decision; iii) to determine effectiveness of the initiatives taken by the NSE to encourage listing. The chapter is organized in the following sections: **4.1:** Sample Selection; **4.2:** Sample representation; **4.3:** Company Profiling **4.4:** Analysis of factors influencing company listings on the NSE; **4.5:** Statistical Analysis; **4.6:** Analysis of Benefits; **4.7:** Analysis of Initiatives; **4.8:** Chapter Summary

4.1   Sample Selection

To meet the objective of this study and find out what specific factors influence company listings the sample selected was clustered into two groups; listed companies (listed group) and the non-listed companies (non-listed group). The study sought information from the non-listed companies. In order to identify which companies to sample the listed companies were used to determine the characteristics that would make up the non-listed companies. A total of 20 companies were selected for the sample, 10 listed and a matched sample of 10 non-listed. The listed companies were those that issued securities to the public between 2000 and 2009. These companies were selected due to their data availability from the NSE and CMA. The Non-listed group were a matched sample of 10 privately held companies based on industry classification of the NSE. Data was analyzed based on these two groups in order to compare the influence of established factors on their listing or lack thereof.

Data from the sample groups was collected using two main techniques: for the listed group, a requirements schedule was prepared (appendix 4). Information memoranda of these companies from the CMA library were used to determine the importance the factors being tested carried in the listing decision. From these memoranda, the researcher also drew information on unique company specific issues. Data from the non-listed group was sought using a questionnaire with a 5-point Likert scale (appendix 6). Data was then analyzed based on the sample groups.

4.2   Response Rate

The sample group of companies was based on their company profiling. The company specific elements used for profiling as discussed in the literature review were: company size (asset base), age of the company and industry sector. Of the total sample group of 20 companies; 10 in the listed group and 10 in the non-listed group the respondents were 15 companies, a 75% response rate. From the listed group, there was a response rate of 80% while from the non-listed group, the response rate was 70%. The sections below present the summary of results from the data. First, a profile of the companies selected for the study has been detailed. Second, an analysis of the factors studied has been done in the next section.

4.3   Company Profiling

This refers to a summary of the nature of companies that were used in the study. Three elements were used for the profiling: company size measured by the asset base; age of the company since incorporation and the industry in which the company is in.

4.3.1   Company Size

Based on the listing requirements of the CMA Act (2002), a company is expected to have attained a minimum asset base of 100 million shillings. All companies represented in the test sample for both groups (list and non-list) had attained this threshold and surpassed it. From the results, 100% of the respondents had an asset base of over Kshs. 300 Million.

4.3.2   Age

Based on the NSE listing requirements, companies need to report positive earnings for 2-3 years prior to their listing. This means that the company needed to have been in existence for a period longer than the listing requirement. Table 4.1 shows the age range for both groups' response data.

Table 4.1: Response data for Age

Age Range	Listed group*	Non-listed group**
5 – 15	4	1
16 – 25	0	2
26 – 35	1	0
Over 35	3	4

*For the listed companies age refers to the number of years the company has been in existence from incorporation to listing.

Source: Survey data

From table 4.1, out of the 8 listed companies, 4 were relatively new companies. This is evident as their age ranged between 5-15 years. Of these, 2 were initially privately held while the others were government divestures. A significant number were also over 35 years old, representing 37.5%, listed after being in existence for a long time. It is interesting to note that only one of these companies that listed after a long time in the market was a government divesture. The others were privately held and then sold to the public in an IPO to raise funds for investment expenditure and regional expansion.

4.3.3 Industry Sector

In profiling the companies, industry segmentation was considered to enable determining a matched sample. The industry segmentation used was based on classification of the NSE as at August 2011. The non-listed group was matched against the listed group. The target companies were stratified based on industry sector and a questionnaire was issued. Table 4.2 shows the response rate vís á vís the target for non-list.

Table 4.2: Summary Statistics of Listed group and Non-listed group by Industry

Industry	Listed group		Non-Listed group	
	Target	Prospectus available**	Target	Response
Energy & Petroleum	1	1	1	2*
Telecommunication & Technology	2	2	2	0
Banking	2	1	2	2
Insurance	1	1	1	3*
Commercial & Services	1	1	1	0
Investments	1	0	1	0
Manufacturing & Allied	2	2	2	0
Total Number of Companies	10	8	10	7

*For these two cases it was noted that the response exceeded the target. This was due to the fact that questionnaires were sent out to another set of companies when there was response failure in the initial set of companies selected.

**Refers to the availability of the prospectus of the particular company

Source: Survey data

From table 4.2, 8 out of the 10 listed companies that were targeted were used in the study. The other two companies were dropped from the study because their information memoranda were not publicly available and thus could not be used. 7 companies out of the 10 targeted for the non-listed group were used as they responded to the questionnaire. Discrepancy in matching of the two groups arose due to unavailability of responses from all targeted companies.

As shown in table 4.2 there were some segments where the responses exceeded the target companies. This was because it was not possible to get a perfectly matched sample. Therefore, in order to get a better representation of the population, more than one set of questionnaires was sent out to different companies. This was done after it became apparent that some of the companies did not respond. Some of the hindrances were due to the recent organization restructuring e.g. mergers and takeovers thus an absence of the right person to answer the questionnaire.

4.4 Analysis of Factors Influencing Company Listings on the NSE

The main objective of the study was to establish the specific factors that influence company listing on the NSE. To meet this objective data was analyzed and organized based on the specific objectives, which were: i) to identify the factors that influenced listed companies; ii) to establish the factors that have hindered unlisted companies; iii) to find out the benefits that would motivate company listings. The results are discussed below.

4.4.1 Factors influencing Listed Companies

Listed companies refer to the sample group of companies that have been listed on the NSE between 2000 and 2009 based on the scope of this study. These companies were selected as a basis for the sampling of the unlisted companies to be used to meet objective two. Following Ngugi & Njiru (2005) the study analysed the market specific factors over e different time period to determine whether the factors that were proposed for study had changed over time. Market specific factors are exterior to the companies but characterise the stock market. They have an influence in determining the use of capital markets by companies as sources of funds hence directly determine the development of the market in terms of number of companies listed. These factors were drawn from literature (Demirguc-Kunt & Levine, 1996; Yartey & Adjasi, 2007; Yuriy, 2008) and those included in this study were: stock market liquidity, stock market volatility, legal and regulatory framework and the political environment.

Results for the listed group are based on data from company prospectus as the information required was to give insight on the companies' motivation to publicly list. Basic statistics of mean and standard deviation were used to summarize the results obtained from the raw data in table 4.3:

Table 4.3: Summary statistics for market specific factors influencing the listed group

Variable	Mean	StDev
Political Environment	37.5%	0.05
Liquidity	37.5%	0.05
Volatility	25.0%	0.04
Legal & Regulatory Framework*	12.5%	0.02

*the legal and regulatory framework is a conglomerate of specific factors of disclosure, listing requirements, IFRS compliance and trading practices.

Source: Survey data (2000 – 2009)

Table 4.3 shows summary statistics mean and standard deviation of market specific factors influencing equity listings represented by the variable. These data show the relative importance that respondents attached to market factors in their listing or non-list decision. The factors were ranked based on their prominence and frequency of occurrence with regard to the listing decision. The mean column in the table describes on average the percentage of respondents considered the factors in their decision to list. The higher the mean value the higher the importance attached by the respondent to the factor. The standard deviation is a measure of dispersion to show how far apart the responses were from the mean value. The higher the standard deviation the further away the responses are from the mean value thus reducing their chance of being influential factors and indicating possible outliers.

Each of the factors is discussed in turn below where the order of presentation is as follows: first a comparison of responses from both the listed group and non-listed group is done with reference made to table 4.3; second, the data is represented using graphs followed by an explanation; third, a comparison of present findings with the hypothesis tested is made based on prior literature.

4.4.1.1 Political Environment

According to the World Bank (2009) a country's political environment is based on how democratic or autocratic its leadership is. This has a direct influence on a country's financial

market as found by McGuire & Olson (1996) and Girma & Shortland (2008). For this study the political environment was measured using the '*Polity*' condition of autocracy or democracy used by the World Bank (2009). From the prospectuses of listed group companies, it was found that on average 37.5% of the companies felt that an improvement in the political environment influenced their listing decision. Therefore it would be expected that an improved ranking on the political index of the country would encourage participation of companies in the financial markets. The NSE experienced improved participation through equity listings in the years after a regime change. Figure 4.1 below maps the relationship between political environment and new equity listings over the period 2000 – 2009.

Figure 4.1: Trend showing Equity listings and the Political Environment 2000-2009
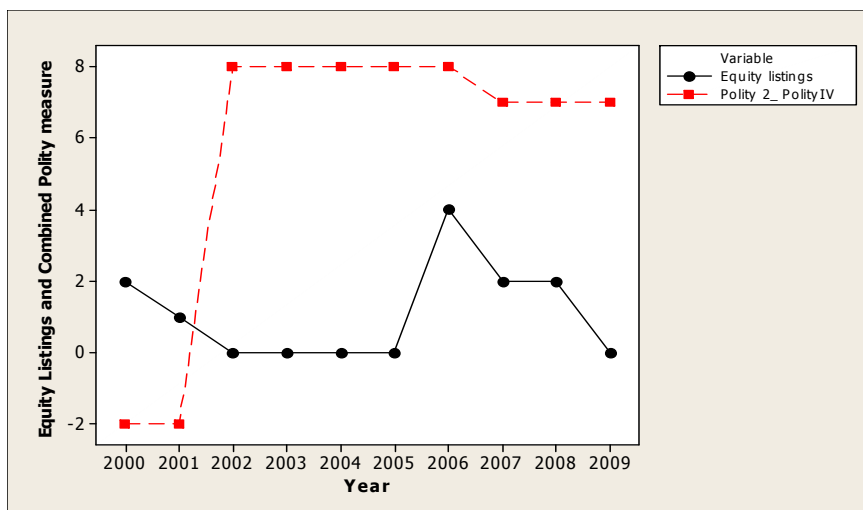
Source: Survey Data

Figure 4.1 shows a graphical representation of the combined polity, i.e. political environment measure and its effect on equity listings. The political environment rating shown in figure 4.1 is a combined political index which looks at the political democratic and political autocratic (appendix 5). An increase in the democratic polity necessitates a decrease in autocratic polity making it a more favourable environment. This is shown by an improvement in Kenya's political rating by the World Bank (2009) report from -2 to 8. It is evident that in 2002 there was a marked improvement in the political environment due to the anticipated and eventual change in political regime. This improved political environment was subsequently followed by a marked improvement of the financial markets. This was evidenced through an increase in the number of new equity listings. The time lag may be explained by the time taken to prepare for a public

offering. This affirms the hypothesis tested in this study that stated: A favourable political environment is positively related to the development of the stock market.

Growth of the NSE Primary market as discussed by Ngugi & Njiru (2005) cited the regime change as a motivating factor. Consistent with Ngugi & Njiru (2005) figure 4.1 depicts the improvement in the equity market in tandem with the political environment. This growth was marked by an increase in equity listings on the NSE. The Kenya Economic Review (2009) established that the year 2003 experienced an improvement in the overall economy. A further analysis based on industry segments showed that certain industries were more influenced by the change in regime than others (Ngugi & Njiru, 2005). Based on industry segmentation, the results in table 4.2 shows that companies in the banking industry from both groups strongly considered the political environment; those in the telecommunication and technology industry from the Listed group data. This is explained by Kibuthu (2005) who stated that there were industry segments that are highly interfered with or regulated by governments. With specific focus, two companies constitute the technology and telecommunication industry sector on the NSE (2011). Both of these companies listed in the time period under study and cited a change in political regime as a motivating factor due to the consequent deregulation of their industries.

Therefore, results from the study are consistent with literature as it is evident that where the political environment is favourable, companies will be attracted to the financial markets. Consequently this conclusion affirms the hypothesis developed and tested.

4.4.1.2 Stock Market Liquidity

Stock market liquidity was defined as the ability to easily buy and sell securities (Demirgüc-Kunt & Levine, 1996). It was measured by the turnover ratio computed as Value traded/Market capitalization as proposed by Demirgüc-Kunt & Levine (1996) and Garcia & Liu (1999). It determines the degree of securities trading relative to market size.

From table 4.3 among the listed group an average of 37.5% of companies cited liquidity of the stock market as a factor influencing their decision to list on the NSE. A standard deviation of 0.05 for this group shows that the opinions from these companies on stock market liquidity were not scattered far from the mean. This is explained by the fact that these companies cited the increase of investor appetite for shares contributed to their listing. The movement of equity listings with reference to market liquidity as presented in figure 4.2:

Figure 4.2: Trend showing Equity Listing and Stock Market Liquidity 2000-2009
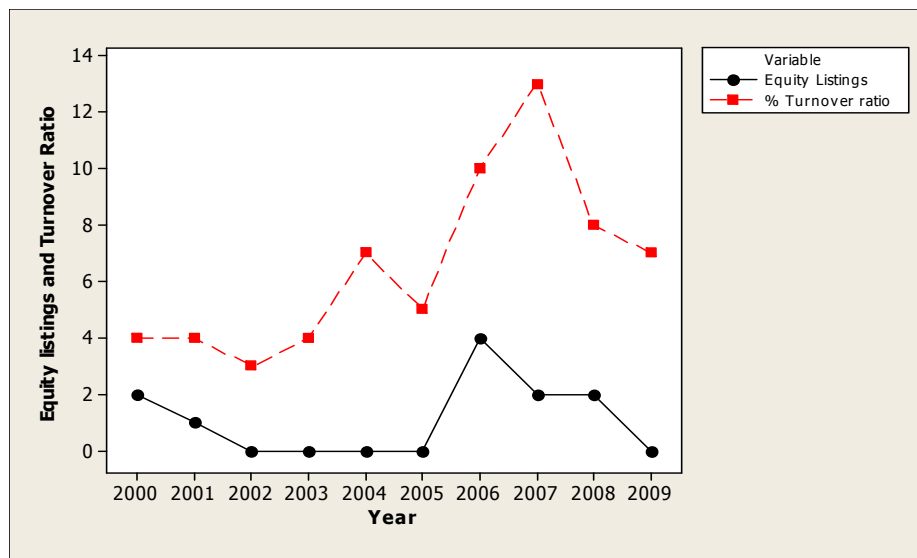
Source: Survey Data

From figure 4.1, the improved stock market liquidity as shown by the turnover ratio was mirrored by an increase in equity listings. The years 2006-2008 accounted for 80% of listings for the ten year period. An exception was in years 2003 and 2004, where the corresponding increase in turnover ratio was not met with increased equity listings. This may lead to the assumption that these years were influenced by a change in political regime which affected the overall economic environment. For that reason a correlation may be established among market specific factors. To establish whether this was the case, a Pearson's correlation was run and the results are presented and discussed in the statistical analysis section of the study further on this chapter.

Based on the hypothesis developed; A positive relationship exists between stock market liquidity and stock market development, it was expected that the improvement in stock market liquidity expressed by the turnover ratio would be reflected by an increasing trend in number of equity listings. From figure 4.2 the number of equity listings is seen to be increasing in tandem with improvement in stock market liquidity. This affirms the alternative hypothesis tested.

With reference to literature, Demirgüc-Kunt and Levine (1996) found that a high turnover ratio, i.e. high stock market liquidity indicates *inter alia* low transaction costs. From figure 4.2 it is evident that the period where the turnover ratio was at its highest, the number of equity listings was also at its highest. This is consistent also with Garcia & Liu (1999) who found that liquid stock markets encourage investments to high return projects through long-term commitment of capital by investors toward profitable investments. Further, the results of the

study are consistent with Senbet & Otchere (2008) who established that the more liquid the stock market the larger the amounts of savings channelled through the stock market and the higher the opportunities are for it as a source of capital for companies. Consequently a higher market capitalization would be expected and since measures of stock market development measures are correlated, ideally an increase in the number of listed companies would be cited.

Therefore, the results from the study are consistent with literature and thus affirm the alternative hypothesis, where increasing market liquidity has a positive impact on stock market development. This means that the liquidity of the NSE plays a role in the decision making process of the companies that consider listing and therefore a factor that influences stock market development.

4.4.1.3 Stock Market Volatility

Stock market volatility refers to the systematic risk faced by investors who hold a market portfolio and thus directly influences the issuing companies' cost of capital (Demirguc-Kunt & Levine, 1996; Guo, 2002). To determine stock market volatility, the measure used was stock market index as proposed by Guo (2002). For this study, monthly data for the NSE 20-share index over ten years was used. The NSE 20-share index is a price-based measure which depicts the movement of stock prices over time as it combines the volume of trading and price movement. This means that for the market to be encouraging for potential issuers of stock it must be buoyant (Bitok, Kiplangat, Tenai, & Rono, 2011).It was expected that the market was favourable when the value of the index was high, i.e. there was a positive change in the index.

Results from the listed group presented in table 4.3 shows that volatility of the stock market was ranked third as an influencing factor. Among the listed group an average of 25% of the companies cited the improvement of the NSE 20-share index as a factor motivating their listing. These companies stated that their listing was influenced by the consistency in market volatility based on an increasing share index, without sporadic market events. Therefore, stock market volatility would positively influence the number of equity listings. Based on the listed group data, capital markets were used to raise investment funds in the boom years of 2006 – 2008. For this reason, it was expected that the non-listed group would negate the fact that volatility has influenced their not being listed.

Figure 4.3: Trend showing stock market volatility and equity listings 2000 – 2009
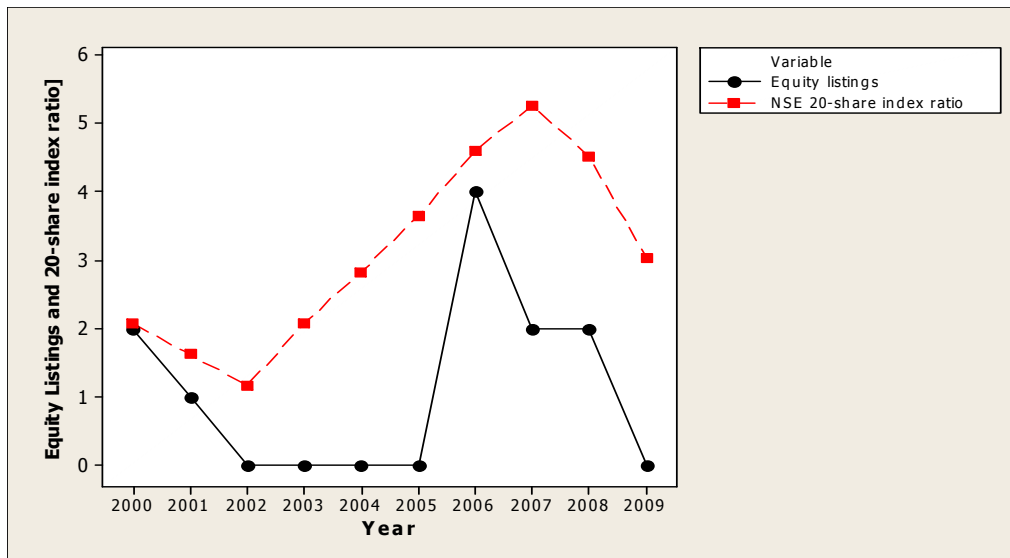
Source: survey data

From figure 4.3, it is evident that between 2006 and 2008 the NSE 20-share index experienced marked improvement. The annual average index value was computed based on the monthly data to ease comparison with annual listing data. This period also recorded majority of the new equity listings. The Kenya Economic Review (2009) termed these years as the "NSE boom years". Improvement in market volatility markedly encouraged most companies seeking funds for investment.

Based on the hypothesis developed; A negative relationship exists between high stock market volatility and stock market development. However the measure of how volatile a market should be in order to favour development is relative to the price movement. Therefore Senbet & Otchere (2008) were justified to find that where the price movement is used decreasing market volatility among African markets has encouraged use of capital markets. This is because it was associated with reduced risk in the capital markets. However following Guo (2002) who used indexes, it was expected that the improvement observed in the NSE 20-share index would be reflected by an increase in number of equity listings. This shows that the two measures are not perfectly correlated as it would have been expected that the sign would have also been negative. From figure 4.3 the number of equity listings is observed to be increasing with improvement in the stock market volatility. This negates the alternative hypothesis tested.

With reference to literature, Capasso (2006) established that volatility can impact investment and growth by causing misallocation of resources to the most profitable investment

by the equity market as based on price signalling. High volatility in stock prices would raise the cost of access to capital and thus decreases the sourcing of financial funds from the capital markets. Therefore, companies would be deterred to list on the public exchange causing stagnation in the development of the stock market due to the heightened cost of access to capital Guo (2002). Contrary to this, Guo (2002) and Bitok et al. (2011) established that a lack of sustained buoyancy of the market tends to increase cost of capital thus deterring investors from the market as it would be too expensive. From figure 4.3, the NSE 20-share index shows sustained market volatility and thus an encouraging stock market. Therefore the results obtained in this study are inconsistent with authors who used prices or annualized returns as the measure of volatility (Demirguc-Kunt & Levine, 1996 and Senbet & Otchere, 2009) as they expected decreasing volatility to positively impact stock market development. The results are consistent with (Guo, 2002; Capasso, 2006 and Bitoket.al, 2011) who established that sustained volatility is necessary for stock market development and especially equity listings. It is necessary in addition to check for possible correlation as the companies also listed within a period when the country was undergoing changes in the political environment which may have had an effect on the NSE 20-share index.

4.4.1.4 Legal and Regulatory Framework

The legal and regulatory framework refers to an enabling environment to encourage the participation of enterprises in the stock exchange (Asea, 2003). It is comprised of four main elements that facilitate the proper functioning of stock exchanges disclosure, IFRS compliance, listing requirements and fair trading practices. These elements as stated by Yartey (2008) make up the measure for the framework. This study used these measures as well. Results in table 4.3 show that only 12.5% of the companies explicitly expressed their consideration of the regulatory framework factor prior to listing. This is an alarming finding as a higher percentage would have been expected from the listed group companies. Therefore, there is hardly evidence from the listed group in support of a favourable regulatory framework influencing the listing decision. Several authors[10] found that a well set up regulatory framework encourages stock market development as it protects the financial markets participants. Asea (2003) established that a

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[10]Pagano et al. (1998), Perotti & Oijen (2001), Perotti & Laeven (2002) and Yartey (2008)

proper framework creates an enabling environment to encourage participation of enterprises in the stock exchange.

4.4.2   Other emerging factors

In addition to the specific market factors put forth by literature as discussed above other factors emerged from the study as influencing stock market development. Among the listed group these factors were cited in their prospectuses. These factors are discussed below in turn.

4.4.2.1 Industry influence

Industry influence refers to the effect that the specific business segment or sector constituting a company's operating environment. This means that there must be external forces in the industry environment in which the companies operate. This factor was mainly cited by companies in the listed group from whom two issues that influenced their listing decision became evident: one was the promise of industry growth which spells the external boost of the companies' earning potential; and two, industry intervention or interference by government. As much as industry (de) regulation may be linked to the political environment, it emerged as a major factor accounting for 40% among the responses by the listed group. This was mainly the case among companies in tightly controlled industries for example the telecommunication and technology industry, insurance and banking. This presents a slight shift from what literature proposed that the industry influence is based on the valuation of the company by the industry (Pagano, Panetta, & Zingales, 1998). Therefore industry valuation of a company did not arise as a direct factor influencing equity listings. Rather it was based on the industry growth for company growth and a company's earning potential. In addition to industry influence, general economic growth in Kenya and East Africa positively influenced companies to list. Response from the listed group showed that 12.5% of the companies considered the capital markets as a source of funds for company expansion due to marked economic growth in Kenya and East Africa.

4.4.2.2 Market automation

Stock market automation is considered in the general category of market infrastructure. It refers to the use of computerized and electronic systems for enabling the process of trading, clearing and settlement (Yartey & Adjasi, 2007). From the listed group data, 37.5% of the respondents expressed that stock market automation influenced their listing. In this regard they

cited implementation of the automated trading system, and introduction of central depository savings accounts. These two elements had a direct impact on the NSE as it conceded operational efficiency on account of automation (NSE, 2008) making the stock market more attractive to the private sector. This positive influence of automation agrees with Yartey & Adjasi (2007) who found that the use of automated systems helps reduce costs and inefficiencies accruing to manual systems. Further as cited by Allen et al. (2008) found that manual systems were bottlenecks in the system and slowed down operations. In a later study Allen et al. (2010) found that operational efficiency of the stock market improved by automation would attract listings directly influencing development of the market. Therefore, as an element of stock market infrastructure, automation has a positive influence on stock market development.

4.4.3   Statistical Analysis for the Listed Companies

The study's first objective required; in addition to establishing the factors considered by companies prior to listing an estimation of their extent of influence. Therefore a statistical analysis was conducted to estimate the extent of influence. Taking the time period of ten years from 2000 – 2009, the ten companies which listed on the NSE were examined three. For each of the companies, data was sourced from their financial statements for four periods, i.e. 3 years prior to listing and the year of listing. In order to determine relationships between the variables, company listing was modelled as a function of market factors. In order to do this, a multiple regression was run with all the variables and their strength established. The model used and results are discussed below.

4.4.3.1 Model Estimation and Regression Results

The model established from literature determined company listings measured by equity listings as a function of four market specific factors consistent with Ngugi & Njiru (2005). The listed group data was collected for three years prior to listing and the year of listing so as to estimate the effect of these factors (a total of four periods). This information was sourced from financial statements posted in the companies' prospectus for those that listed in the period under study where the prospectus was not available the annual report published in the first year of listing was used to obtain historical data. Complete information was available for only 7 out of the 10 companies that listed between 2000 and 2009. The three companies that were excluded

lacked information for some of the variables especially size and profitability for the time period required. The model used for determination was:

Equity Listings $_{it}$ =f (SML, SMV, LRF, PE, CInd, CAtm, CTxn)

(Model 1)

Equity Listings$_{it}$ = β_0 + β_1SML$_{it}$ - β_2SMV$_{it}$ + β_3LRF$_{it}$ + β_4PE$_{it}$+ β_5CInd$_{it}$ + β_6CAtm$_{it}$ − β_7CTxn$_{it}$+ ε

(Equation 1)

Where:

SML denotes stock market liquidity measured by the turnover ratio

SMV denotes stock market volatility measured by the movement of the 20-share index

LRF denotes the legal and regulatory framework determined based on the listing requirements

PE denotes the political environment determined by World Bank classification of country risk

The control variables are given by:

CInd which denotes the industry

CAtm which refers to market automation

CTxn which denotes taxation

For the regression analysis on the listed group, the legal and regulatory framework (LRF) factor was found redundant. This is because for a company to list it must have complied with the regulations given by the capital markets authority. It is also evident from table 4.3 that the LRF had a mean of only 12.5% where it had been mentioned as a considered factor.

The regression equation 1 derived from the initial model was therefore adjusted for the LRF factor as in equation 2.

Equity Listings$_{it}$ = β_0 + β_1SML$_{it}$ - β_2SMV$_{it}$ + β_4PE$_{it}$ + β_5CInd$_{it}$ + β_6CAtm$_{it}$ − β_7CTxn$_{it}$+ ε

(Equation 2)

The results obtained after running the regression equation 3 are presented in table 4.5

Table 4.3: Regression Analysis Results

Panel A: Relationship between equity listings and factors influencing listings

Dependent Variable = Equity Listings

Independent Variable	Coef	SE Coef	T-statistic*	P-value*	VIF
Constant	-21.132	5.900	-3.58	0.002	
SML	32.93	11.84	2.78	0.011	3.7
SMV	0.0009577	0.000353	72.71	0.013	3.8
PE	2.0716	0.7052	2.94	0.008	2.6
Industry	0.02563	0.08372	0.31	0.762	1.2
Market Automation	-0.0256	0.7840	-0.03	0.974	1.8

R-Sq = 74.6%
R-Sq (adj) = 68.8%
Durbin-Watson statistic = 2.96417
*Values at 95% confidence level

Source: Survey data (2000 – 2009)

Panel B: Analysis of Variance

Source	DF	SS	MS	F-ratio	P-value
Regression	5	58.804	11.761	12.90	0.000
Residual Error	22	20.053	0.912		
Total	27	78.857			

Source: Survey data (2000 -2009)

Table 4.5 presents the results from regression equation 3 where it is noted that the control variable taxation was eliminated from the model. The results returned eliminated taxation because all the test points had a value of 0 as it had not been considered by the companies. This is consistent with Ngugi & Njiru (2005) who found that tax incentives had little or nothing to do with increasing number of listings. This is also consistent with the results obtained from the non-listed group of companies who also did not mention tax incentives as a factor influencing their listing or non-list decision. From these results, the study cannot accept the hypothesis tested **H$_7$:** Tax incentive is negatively related to stock market development; as a Type I error would arise because no relationship was established from the results.

From table 4.5, panel A the measure of goodness of fit of the regression equation taken is the adjusted R^2 which shows the proportion of variation of the response variable explained by the regression equation. From the results obtained, the adjusted R^2 is 68.8% which means that the proportion of the response variable explained by the variables combined in the regression equation is 68.8%, i.e. equity listings can be explained by the market specific up to 68.8%. In other words these results mean that the combined set of market and company specific factors

tested in this study explain 0.688 of equity listings on the NSE. In order to make statistical inference of the regression equation, an analysis of variance was performed and results presented in panel B of table 4.5. At a confidence level of 95% the sum of squares deviations about the mean explained by the regression (SSR) is 58.80 whereas the sum of square unexplained by the regression represented by the error (SSE) is 20.05. Therefore the part explained by the regression is greater than that which is not explained giving the regression equation explanatory power. This means that the market factors tested have a strong explanatory value for the response variable (equity listings) giving the regression equation a strong explanatory power ($p = 0.000$; $F = 12.90$). The Durbin-Watson statistic provides further information on the presence of first order autocorrelation between the variables being tested. The statistic ranges from ($0 < D < 4$). The optimal value would be $D = 2$ such that there is no first order autocorrelation. The results from the regression in panel A provide weak evidence of first order autocorrelation ($D = 2.964$). Therefore the order of variables in the regression equation does not affect the outcome of the results.

An analysis of the individual factors based on panel A is discussed below:

Stock Market Liquidity (SML): Based on the regression results in panel A, a positive relationship was established between stock market development and liquidity. This is given by the positive sign of the coefficient *($\beta = 32.93$)*. To determine the significance of this variable, the p-value estimated is checked. From panel A, stock market liquidity has a p-value of 0.011 which is a strong positive, i.e. it provides strong evidence ($0.01 < p < 0.05$) that SML is an influential factor for stock market development. With reference to literature these results are consistent with the Levine (1991); Demirgüc-Kunt & Levine (1996); Yartey (2008) and Senbet & Otchere (2008) who all found that stock market liquidity strongly influences stock market development. In addition to these, the study is also consistent with Ngugi & Njiru (2005) and (Huyghebaert (2007) who stated that companies seek liquid markets in which to issue their stock. Therefore equity listings are directly related to the market's liquidity. The findings established a positive significant relationship between stock market liquidity and stock market development therefore the study rejects the null and accepts the alternative hypothesis tested:

H$_1$: A positive relationship exists between stock market liquidity and stock market development

Stock Market Volatility (SMV): From panel A, a positive relationship was established between stock market development and market volatility. However, the coefficient value is fairly small (*$\beta = 0.0009577$*) meaning that a unit change in equity listings would be influenced by a

smaller change in volatility. The test of significance p-value result, p = 0.013, provides strong evidence (0.01<p<0.05) that market volatility is a factor influencing stock market development. With reference to literature these results were inconsistent with Demirguc-Kunt& Levine (1996) The findings are however consistent with Bitok et al. (2011) who found that a buoyant market is appealing to potential listing companies. Although the findings were significant the relationship established was positive, therefore the study cannot reject the null hypothesis and accept the alternative hypothesis tested:

H$_2$: A negative relationship exists between stock market volatility and stock market development

The Political Environment (PE): From panel A, a positive relationship was established between stock market development and the political environment (β =2.0716). The test of significance provides overwhelming evidence (p < 0.01) that the political environment influences stock market development at p = 0.008. This is the strongest value obtained from the regression meaning that the political environment is the most significant factor influencing stock market development. Results from the non-listed group also provided evidence that political environment was the highest ranked factor as influencing non-listing and consequently listing decision (table 4.3). These findings were consistent with authors on African markets (Yartey & Adjasi, 2007; Andrianaivo & Yartey, 2009), who found that the political environment has a major influence on stock market development. The results plainly show what a change in the political regime has on financial market development. The study established a positive significant relationship between political environment and stock market development therefore the study rejects the null and accepts the alternative hypothesis tested:

H$_3$: A positive relationship exists between a favourable political environment and stock market development

In summary, the findings provide evidence for the rejection of the null hypothesis and acceptance of the alternative hypothesis for the market specific factors influence on equity listings. With reference to stock market liquidity and stock market volatility there is strong evidence for the study to reject the null and accept the alternative hypothesis. With regard to political environment, the findings present overwhelming evidence in support of the alternative hypothesis.

4.4.4 Summary of factors influencing listed companies

Market specific factors refer to those factors that may have an influence on the company's decisions but are external to the organization. The factors poised by literature to influence stock market development (company listings henceforth) considered in this study were stock market liquidity, stock market volatility, political environment and the legal and regulatory framework. From the discussion above the most prominent factor that influenced these companies in their listing decision was the political environment at 37.5%. These results were consistent with Yartey & Adjasi (2007) and Yartey (2008) who observed that for African countries, the political environment uniquely influences their stock markets. Therefore when a country's political environment is favourable more companies would be encouraged to participate in the stock exchange. According to the World Bank report (2009) improvement in a country's democratic polity over autocracy as a result of change in the political regime had a positive impact on equity listings on the stock exchange. This study is also consistent with Ngugi & Njiru (2005) who expressed regime change as a motivating factor encouraging growth of the primary market. Therefore, results from the study are consistent with literature as it is evident that where the political environment is favourable, companies will be attracted to the financial markets. Consequently this conclusion affirms the hypothesis developed and tested.

Stock market liquidity was ranked the second most influential factor. Based on the results where the turnover ratio was at its highest, i.e. the stock market was liquid; it recorded the highest number of equity listings. This shows that stock market development is positively related to stock market liquidity. Therefore a liquid stock market would encourage companies use the stock exchange to raise capital for long term investments. The listed group affirmed the fact that stock market liquidity was a factor that drew them to the stock market at a frequency of 37.5%. Further to this the listed group expresses another element of market liquidity which relates to investor appetite which relates to the investor appetite experienced in the period under study.

Stock market volatility was ranked third by the listed group based on the NSE 20-share index as a measure of volatility. Using this measure the results obtained show that equity listings are positively related to stock market volatility. This means that the market needs to have sustained buoyancy showing market activity. This is consistent with Guo (2002), Capasso (2006) and Bitok et.al. (2011) who established that sustained volatility is necessary for stock market development. This is especially so to encourage equity listings. However these results are

inconsistent with the hypothesis tested where a negative relationship was expected, i.e. moments of high volatility should have the least equity listings. The findings were also inconsistent with authors (Demirguc-Kunt & Levine, 1996 and Senbet & Otchere, 2009) who used annualized returns as the measure of volatility as they also found a negative relationship.

With reference to literature, Capasso (2006) established that volatility can impact investment and growth by causing misallocation of resources to the most profitable investment by the equity market as based on price signalling. High volatility in stock prices would raise the cost of access to capital and thus decreases the sourcing of financial funds from the capital markets. Therefore, companies would be deterred to list on the public exchange causing stagnation in the development of the stock market due to the heightened cost of access to capital Guo (2002). Further to this, Guo (2002) and Bitok et al. (2011) established that a lack of sustained buoyancy of the market tends to increase cost of capital thus deterring investors from the market as it would be too expensive. From figure 4.3, the NSE 20-share index shows sustained market volatility and thus an encouraging stock market. Therefore, the results obtained in this study are inconsistent with authors (Demirguc-Kunt & Levine, 1996; Yartey & Adjasi, 2007; Senbet & Otchere, 2008) who used prices or annualized returns as the measure of volatility as they expected decreasing volatility to positively impact stock market development.

The listed group companies were expected to cite in their prospectus a strong mention of a favourable legal and regulatory framework. Only 12.5% of respondents state that they had considered the legal and regulatory framework prior to their listing decision. Some of the respondents in the listed group however expressly stated that the element of disclosure that aims at establishing good corporate governance was encouraging. These findings were consistent with Asea (2003) who established that a proper framework creates an enabling environment to encourage participation of enterprises in the stock exchange. Therefore, an overly stringent market would choke itself as it would deter companies from the stock exchange. Perotti & Laeven (2002) expressed the view that a favourable legal and regulatory framework encourages participation in the stock market.

4.4.5   *Analysis of factors influencing the Non-listed companies listing decision*

The use of the non-listed companies is an attempt at extending Ngugi & Njiru (2005) based on their recommendation to test whether the institutional and market factors, policy issues and motivation factors influence the listing decision. These companies were selected based on

the threshold requirements for companies to list on the NSE. Having identified the factors that influenced the listed companies as well as their listing reasons, objective one was answered. So as to answer objective two it was necessary to identify issues of major concern to non-listed companies. In this regard a questionnaire was issued that ranked their opinions on a 5-point Likert scale. The market factors tested for the non-listed companies were: stock market volatility, stock market liquidity, political environment, and the individual factors constituting the legal and regulatory framework. In addition to the market factors, it was found necessary to test possible significance for the company specific factors: company age, profitability, capital structure and company size. The data obtained from the questionnaire was ordinal from a 5-point Likert scale whose points were assigned percentages as in appendix 8. This was done so as to indicate the level of influence of each of the factors on the companies' listing decision. The level of influence refers to the average rating that the respondents' assigned to individual factors. This information is presented in chart 4.1 below:

Chart 4.1: Factors influencing company listings among non-listed companies
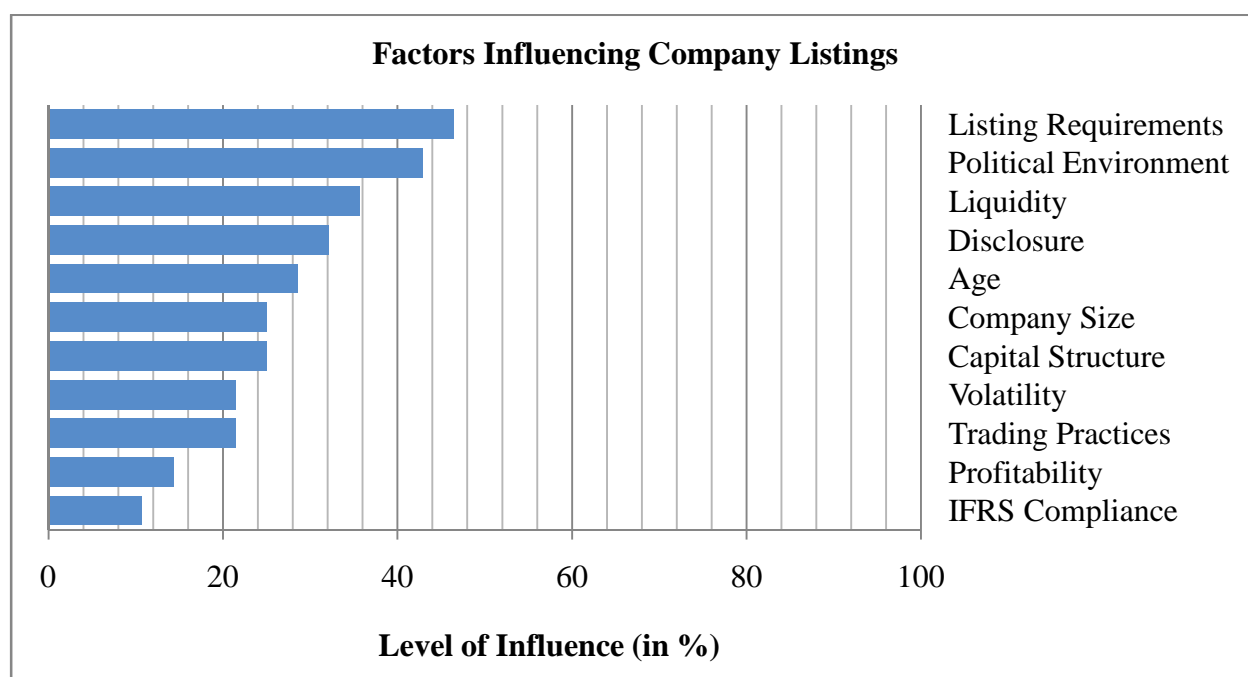
Source: Survey data, author computation

The questionnaire was structured to find out what factors have influenced the companies' non-list decision. This data was sourced so as to attempt to complete the survey in comparison with the listed companies. In order to enable the researcher establish what had caused the slow

growth in company listings despite the response from the listed companies, a snapshot survey was done on the non-listed companies. For each of the variables considered the weighted average and the standard deviation were used for analysis. From chart 4.1 above, the factor with the highest level of influence on the listing decision was listing requirements at 46.43%. Of the company factors, none proved to have a positive relevance level of influence on the listing decision of the respondents. A discussion on each of the factors is given below:

Stock Market Liquidity (SML): Was defined as the ability to buy and sell (Demirguc-Kunt & Levine, 1996). It was measured by the turnover ratio computed as the computed as Value traded/Market capitalization as proposed by Demirgüc-Kunt & Levine (1996) and Garcia & Liu (1999). It determines the degree of securities trading relative to market size. From chart 4.1 stock market liquidity was found to have a level of influence of 35.71%. This meaning that the market liquidity was not a very influential factor with regard to the listing decision. From this response, a distinct dissimilarity from the response of the listed group was determined as felt that prior to listing stock market liquidity was important. The inference from these results would be that the concept of stock market liquidity becomes a consideration when a company is ready to list on the exchange. According to Garcia & Liu (1999) companies consider use of the capital markets when the need to raise long term funds for capital intensive projects. From the results, therefore, it may be stated as the reason for the lack of concern among companies in the non-listed group market liquidity as a current influencing factor.

Stock Market Volatility (SMV): Stock market volatility refers to the systematic risk faced by investors who hold a market portfolio and thus directly influences the issuing companies' cost of capital (Demirguc-Kunt & Levine, 1996; Guo, 2002). To determine stock market volatility, the measure used was stock market index as proposed by Guo (2002). Respondents were asked to base their opinion of the volatility of the stock market using the NSE 20-share index. Information from chart 4.1 shows that market volatility has a 21.43% level of influence on the listing decision. This indicates that the majority of the respondents felt that market volatility had a very low level of influence on their listing decision. Results from the non-listed group are inconsistent with the listed group data and the movement of equity listings with reference to market volatility as presented in figure 4.3. The inference that may be made from these results is that the companies are not interested in the volatility of the market until they are interested in raising long term capital.

With reference to literature, Capasso (2006) established that volatility can impact investment and growth by causing misallocation of resources to the most profitable investment by the equity market as based on price signalling. High volatility in stock prices would raise the cost of access to capital and thus decreases the sourcing of financial funds from the capital markets. Therefore, companies would be deterred to list on the public exchange causing stagnation in the development of the stock market due to the heightened cost of access to capital Guo (2002). Contrary to this, Guo (2002) and Bitok et al. (2011) established that a lack of sustained buoyancy of the market tends to increase cost of capital thus deterring investors from the market as it would be too expensive.

Political Environment: According to the World Bank (2009) a country's political environment is based on how democratic or autocratic its leadership is. This has a direct influence on a country's financial market as found by McGuire & Olson (1996) and Girma & Shortland (2008). For this study the political environment was measured using the '*Polity*' condition of autocracy or democracy used by the World Bank (2009). A favourable political environment is directly related to its level of democracy. Details of the conglomerate political index are presented in appendix 5. From chart 4.1 it is evident that the political environment was considered a fairly influential factor on the listing decision at a relevance level of 42.86%. These results indicate that the respondents felt that the political environment of a country is a factor that needs considering prior to listing and would have an influence on the listing decision. This means that the respondents were not willing to list on the exchange when the political environment is unstable. These findings are in support of the alternative hypothesis which stated that a favourable political environment would positively influence company listings.

Legal and Regulatory Framework: The legal and regulatory framework refers to an enabling environment to encourage the participation of enterprises in the stock exchange (Asea, 2003). It is comprised of four main elements as stated by Yartey (2008) that facilitate the proper functioning of stock exchanges: disclosure, IFRS compliance, listing requirements and fair trading practices. This study used these measures as well to determine the effect of the legal and regulatory framework results are displayed in chart 4.1. Among the non-listed companies these factors were assessed individually:

Listing Requirements: From chart 4.1the respondents felt that 'listing requirements' was the most influential factor with regard to the legal and regulatory framework at a 46.43% level of

influence. These findings indicate that the companies' listing decision is influenced by how stringent the listing requirements in a market are. Following a report by the CMA in 2005 which stated that some of the listing requirements such as debt ratios, minimum track history, minimum number of shareholders and share capital were too stringent.

Disclosure: this factor was considered with reference to annual reports, financial reports and sustainability reports. As displayed in chart 4.1 the factor disclosure had a 32.14% level of influence, although there was a minority of respondents who agreed that it contributed to their not being listed. From the response data it can be inferred that even where companies felt that disclosure would be difficult, majority were neutral on the issue while some expressed the opinion that it was not a cause for their not being listed and would not have a problem with it.

Trading Practices: as part of the legal and regulatory framework, the oversight authority has the mandate to ensure that dealings on the exchange are conducted in a fair manner. From chart 4.1 the level of influence attached to trading practices by the respondents was 21.43%. This level of influence was fairly low meaning that the respondents hardly found reason for their listing decision with reference to trading practices.

IFRS Compliance: this refers to a company's ability to comply with the reporting standards expected by the exchange oversight authority. From chart 4.1 the respondents expressed the view that compliance was the least influential factor on the listing decision as it recorded a 10.71% level of influence.

Therefore, the researcher can conclude that the most important aspect of the legal and regulatory framework that influences company listings is listing requirements. From the results obtained it cannot be explicitly determined that there is need for a favourable legal and regulatory framework for companies to participate in the financial markets through the stock market. This is with the exception of the listing requirements. Therefore, the results are not conclusive with regard to the hypothesis tested which stated: A positive relationship exists between the legal and regulatory framework and company listings. Several authors[11] found that a well set up regulatory framework encourages company listings as it protects the financial markets participants. Asea (2003) established that a proper framework creates an enabling environment to encourage participation of enterprises in the stock exchange.

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[11]Pagano et.al. (1998), Perotti & Oijen (2001), Perotti & Laeven (2002) and Yartey (2008)

Company age refers to the length of time a company has been in existence. From the profiling section of the companies table 4.1 shows a summary of the age of respondents from the non-listed group. Most of the companies in the non-listed group had been in existence for over 35 years. From the response data in chart 4.1 company age recorded the highest level of influence among the company factors at 28.57%. This indicates a very low level of influence among the respondents on the listing decision. From the hypothesis tested it was expected that company age would be positively related to company listings, however as the percentage was below. This means that a company's listing decision would be positively and directly influenced by its age. However, this was not the case given the results from chart 4.1. It was found that the respondents were not influenced by their age not to list as seen from table 4.1 majority of the companies had been in existence for a relatively long time, i.e. over 15 years. Therefore these companies' non-list decision was not pegged on the consideration of their age, thus negating the hypothesis that company age is positively related to company listings. Ritter & Welch (2002); Capasso (2006) and Yartey (2008), argued that the length of time a company has been in existence would have a significant influence on a company's listing decision. However, response data is inconsistent with literature. Pagano et al. (1998) argue that the business cycle of a company would inevitably lead a company to issue its shares to the public on attaining certain age of "maturity". However, none of the respondents especially the seasoned companies were keen on the stock market. Considering the fact that majority of the responses were not young companies but relatively mature companies, it can be concluded that the study is inconsistent with literature on significance.

Capital Structure refers to the constituent debt-to-equity ratio that it chooses to maintain. In general companies seek to maintain a structure that would not put them at risk of bankruptcy. Pagano et al. (1998) termed this act as "rebalancing of capital structure" where the companies would try maintain the best ratio of debt-to-equity. From the non-listed group data in chart 4.1 respondents disagreed with the opinion that capital structure had an effect on their not being listed. This was indicated by the respondents' rating of the factor's influence at 25% reflecting that rebalancing of capital structure was not a current need and as such not a factor with much influence on the listing decision. With reference to the hypothesis tested a positive significant relationship was expected between capital structure and company listings. However, based on the results in chart 4.1, capital structure of the non-listed group had little influence on

their non-list decision. The finding therefore is inconsistent with Pagano et al. (1998) who found that companies raise funds through the capital markets so as to rebalance their capital structure. Further to this, the findings were inconsistent with Capasso (2006) who found that growth of the banking sector is directly related to company listings because companies that source debt financing must in time rebalance the financing mix. The response data therefore draws the study's conclusion that companies' capital structures are not a significant influencing factor to the listing decision.

Company size refers to a company's asset base which was measured in this study using the total asset base following Pagano et al. (1998). It was expected that a company's size would increase the probability of a company's decision to go public. From the company profiling it was established that all respondents had a relatively large asset base of over Kshs. 300 million. This means that companies in the non-listed group were large enough to be listed because they had the capacity to absorb listing costs. Results displayed in chart 4.1 show that company size had a level of influence of 25% showing the fact that company size had very little influence on the listing decision. According to the hypothesis tested, company size was expected to be strongly related to company listings. This means that the larger the company the higher the probability of it being listed.

Pagano et al (1998) found that a company's growth cycle would lead it to the capital markets once it was large enough. Their study further established that company size ranked the second most important determinant of company listing. However, results from chart 4.1 are inconsistent with this study as majority of the respondents felt company size had very little influence on their not being listed. The size of these companies far surpasses the listing requirement (CMA, 2002) and therefore was not the reason why they had stayed out of the capital markets. Carpenter & Rondi (2006) had found that smaller and medium sized companies that were still emerging would be financially disabled by the cost of listing and thus company size would be a negative influencing factor. Consistent with Carpenter & Rondi (2006), the results showed that the companies were large enough to list and thus size would positively influence their listing but may not be significant as majority of the respondents stated that size did not influence their not being listed.

Profitability refers to the earnings of a company. Profitability can be determined using the net profit (or net earnings) or the return on assets (ROA) as measures. It was established that

these two measures are positively correlated and therefore are interchangeable. This study used the net profit as the measure of profitability. According to the listing requirements issued by the CMA (2002) and the NSE listing manual (2002), a company must report profit, i.e. positive earnings for at least two years prior to their being listed. From the results presented in chart 4.1, the company's profitability was found to be at 14.29% level of influence. This meant that the respondents were of the opinion that the level of profitability required for listing had little influence on their listing decision.

4.4.6 Other Emerging Factors

Further to the specific company factors put forth by literature, four respondents expressed other unique factors not captured in the questionnaire but greatly influenced the listing decision. These are discussed below.

4.4.6.1 Company Structure

Company structure refers to the organizational structure, i.e. whether the company was a group or a single, a multinational or local company. One of the respondents cited the company structure as an influencing factor. The respondent explicitly stated that the company's group strategy is the main driver of timing and/or appropriateness of listing. This was expounded further with reference to the board's decision making policies. In this regard, it was evident that the company structure, in terms of business organization, has a bearing on the listing decision. The angle presented by the study results had not been prominently cited in literature and thus was not part of the tested variables. In this regard, the study contributes to literature as it identifies an issue that large privately held companies in Kenya have when the option to list is put forth.

4.4.6.2 Public Scrutiny

Among the respondents who expressed further concerns, exposure of the companies' financial and operational information accruing to listed companies was mentioned as a deterrent from the capital markets. This is a major consideration that companies weighing the option to list have to bear in mind. From an IPO placement forum by NIC Capital (2010) it emerged that companies considering IPO as a source of financing need to consider the level of public scrutiny that is directly linked to being listed. These respondents were not enthused, despite the fact that being publicly listed comes with the advantage of business presence and visibility. This was due

to the need to maintain a standard level of corporate governance which is constantly scrutinized as the company is used as a benchmark. With the corporate governance guidelines and compliance requirements issued by the CMA and NSE for a company to remain listed, some respondents felt that the public scrutiny of listed companies is too much. They expressed the view that they were not ready for such level of public scrutiny.

4.4.6.3 Dilution of Ownership

On further discussion with the respondents, it emerged that where a company was a family-owned business, the owners were not ready to relinquish ownership as it would be the case with being publicly listed.

4.4.6.4 Additional Capital

One of the respondents felt that the capital markets were a fit for a company ready to expand as a source of long term funding. Additionally, the respondent highlighted that their company was not ready for capital investment projects requiring them to raise funds through issue of shares. Further to this, it was cited that the company may be satisfied with the profits it was presently attaining. The comfortable position that companies achieve and considerably lose interest in listing contradicts the listing benefit of growth opportunities available to listed companies.

4.4.7 Summary of Factors Influencing the Non-listed group

Based on the results obtained in this study the influence level of all the factors was found to be below 50% meaning that the factors were found to be of fairly low level of influence on the listing decision. From the discussion above the most prominent factors influencing the non-listed group decision were the listing requirements under the legal and regulatory framework (46.43%) followed by the political environment (42.86%). These results were consistent with Yartey & Adjasi (2007) and Yartey (2008) who observed that for African countries the political environment uniquely influences their stock markets. According to the World Bank report (2009) improvement in a country's democratic *polity* over autocracy as a result of change in the political regime had a positive impact on equity listings. In the NSE, this is evidenced by the increase in number of companies that listed during the period when Kenya's political index improved as a result of the change in political regime. This study is consistent with Ngugi & Njiru (2005) who

expressed the factor regime change as a motivating factor encouraging growth of the primary market.

Based on the results presented in chart 4.1 it was evident that most companies in the non-listed group felt that the legal and regulatory framework was not favourable with special reference to the listing requirements at a level of influence of 46.43%. These findings were consistent with Asea (2003) who established that a proper framework creates an enabling environment to encourage participation of enterprises in the stock exchange. Therefore, an overly stringent market would choke itself as it would deter companies from the stock exchange. Perotti & Laeven (2002) expressed the view that a favourable legal and regulatory framework encourages participation in the stock market. Therefore, results from the non-listed group support findings by Yartey & Adjasi (2007) that the framework of the NSE needs to be improved to encourage company listings.

The political environment was found to be the second most influential factor among the non-listed group at a 42.86% level of influence. This means that the companies were deterred from or attracted to the market based on the status of the country's political situation. The non-listed group findings show that the companies' listing decision is influenced by the country's political environment. These findings were consistent with the World Bank research (2009) where the *polity* measure used determined that the more stable, i.e. democratic than autocratic a country was the likelier the growth would be of its financial market. These findings were consistent with authors on African markets (Yartey & Adjasi, 2007; Andrianaivo & Yartey, 2009), who found that the political environment has a major influence on stock market development. This is the case as the results explain the impact that changes in political regimes have on financial markets development.

Stock market liquidity was found to have a level of influence of 35.71% meaning that the respondents felt the market liquidity was not a very influential factor in the listing decision. From this response, a distinct dissimilarity from the response of the listed group who felt that prior to listing stock market liquidity was a highly influential consideration. According to Garcia & Liu (1999) companies consider use of the capital markets when the need to raise long term funds for capital intensive projects.

Stock market volatility was one of the least considered market factor with a level of influence of 21.43%. Using the NSE 20-share index as a measure of volatility the results

obtained show that stock market development is positively related to stock market volatility. Consistent with Guo (2002), Capasso (2006) and Bitok et al. (2011), the results found that sustained volatility was necessary to encourage company listings. However these results are inconsistent with the hypothesis tested where a negative relationship was expected, i.e. moments of high volatility should have the least equity listings. The findings were inconsistent with authors (Demirguc-Kunt & Levine, 1996 and Senbet & Otchere, 2009) who used annualized returns as the measure of volatility as they also found a negative relationship. Capasso (2006) established that volatility can impact investment and growth by causing misallocation of resources to the most profitable investment by the equity market as based on price signalling. High volatility in stock prices would raise the cost of access to capital and thus decreases the sourcing of financial funds from the capital markets. Therefore, companies would be deterred to list on the public exchange causing stagnation in the company listings due to the heightened cost of access to capital (Guo, 2002). Further to this, Guo (2002) and Bitok et al. (2011) established that a lack of sustained buoyancy of the market tends to increase cost of capital thus deterring investors from the market as it would be too expensive. From figure 4.3, the NSE 20-share index shows sustained market volatility and thus an encouraging stock market. Therefore, the results obtained in this study are inconsistent with authors (Demirguc-Kunt & Levine, 1996; Yartey & Adjasi, 2007; Senbet & Otchere, 2008) who used prices or annualized returns as the measure of volatility as they expected decreasing volatility to positively impact stock market development.

From the response data in chart 4.1 in considering the company specific factors, all had a very low level of influence on the listing decision with company age recording the highest level of influence 28.57%. Ritter & Welch (2002); Capasso (2006) and Yartey (2008), argued that the length of time a company has been in existence would have a significant influence on a company's listing decision. However, response data was inconsistent with literature. Pagano et al. (1998) argued that the business cycle of a company would inevitably lead a company to issue its shares to the public on attaining certain age of "maturity". However, none of the respondents especially the seasoned companies were keen on the stock market. Capital structure and company size both recorded an influence level of 25% on the listing decision. This means that a company's listing decision was not heavily dependent on its capital structure and its size.

The finding therefore is inconsistent with Pagano et al. (1998) who found that companies raise funds through the capital markets so as to rebalance their capital structure. From the company

profiling it was established that all respondents had a relatively large asset base of over Kshs. 300 million. This means that companies in the non-listed group were large enough to be listed because they had the capacity to absorb listing costs. However the dismal level of influence established showed that the company size was not a very influential factor in the listing decision. These findings contrast Pagano et al. (1998) found that a company's growth cycle would lead it to the capital markets once it was large enough. From the results presented in chart 4.1, the company's profitability was found to have the least level of influence at 14.29%. From these results it can be inferred that profitability of a company is mainly considered on the grounds that it is a requirement prior to listing but it does not necessarily as a factor to influence the listing decision.

In addition to the factors discussed above, four other issues emerged from the non-listed group that have influenced their keeping away from the exchange. The company structure, based on the company's strategy the decision to list is determined by the company's internal structure. The company's strategic plan would determine the appropriateness and timing of listing. This was especially so with companies as subsidiaries of multinationals in comparison to locally owned companies. Public scrutiny due to the increased exposure and visibility that a company receives by being listed was the second arising issue. The respondent felt that the pressure placed on the company due to expectation from the public as well as regulatory authorities was too much and unnecessary at present. The third emerging issue found to be deterring companies from listing was dilution of ownership. This issue was experienced mainly from those companies that had grown as a family business and were not ready to include external parties into the business as would be required in the listing process. The fourth issue that arose was the lack of need to raise large amounts of additional capital. The respondents expressed the view that they were not ready to expand their business visibility and territory. Thus were generally not interested in the capital markets as there was no need to raise ling term funds.

4.5   Analysis of Listing Benefits

In order to answer research question three, the study sought to find out whether benefits presented in literature accruing to listed companies were motivating factors. It was felt that prior to presenting the initiatives that the NSE uses to encourage listings, there was a need to present the benefits to the respondents. This was done to determine whether they were aware of the benefits and to what extent these benefits would motivate their listing decision. The specific

benefits accruing to listed companies that have been cited in literature were: access to a wide capital base, prestige and status, investor diversity, improved business visibility, research and development opportunities, opportunities for growth, benchmarking, and company valuation (Claessens et al., 2002; Pagano et al., 2005; and Kibuthu, 2007, *inter alia*). Bodies such as the CMA (2005) and the World Bank (2011) have also cited these benefits, which in turn contribute to financial markets development. The non-listed group was requested to rate the benefits on a 5-point Likert scale presented using percentages to measure the level of influence. The results are summarized in chart 4.3 below:

Chart 4.2: level of influence of listing benefits on the Listing decision
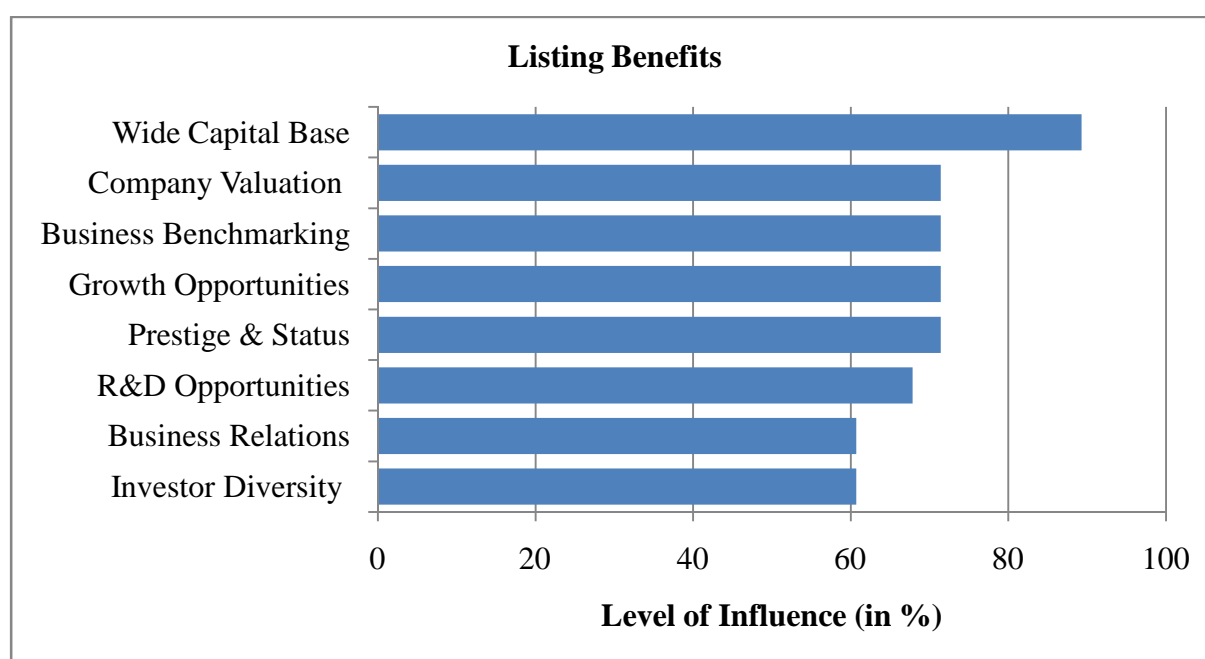
Source: Survey data, author computation

From chart 4.2, the respondents strongly felt that the benefits were motivating. They all placed the level of influence of the benefits above the neutral range of 3 (50%). The specific benefits are discussed below:

Access to a wide capital base: Was the most motivating benefit recording an influence level of 89.3%. It can therefore be deduced that companies are attracted to list on the NSE because of the access to a wide capital base. In this regard, the Kenya market data affirms Claessens et al. (2002) and Ngugi & Njiru (2005) who found that due to the broadness of the capital base, companies will go to the capital market to raise funds for investment and capital expenditure. The wide capital base shows the market's ability to meet companies' fixed capital

needs as found out by Kibuthu (2005). In addition to this, capital markets provide an opportunity for companies to raise large amounts of long term funds at fairly competitive costs (CMA, 2005).

Prestige and status: Literature does not dwell too much on prestige as a benefit that accrues to the listed company. Having an influence level of 71.4%, companies considered prestige and status that comes with being listed at a fairly high degree. These results were consistent with a report published by the London Stock Exchange (2010) that found companies value the prestige that comes with being a listed company. Further to this, the CMA (2005) proposed that being listed on the stock exchange provides enhanced corporate governance as it is a prerequisite to being listed and would thus translate to improved corporate earnings. A report by the Budapest Stock Exchange (2011) found that heightened consumer awareness and confidence improves a company's marketability and recognition. This in turn gives the company an admirable image in the market.

Opportunities for growth: These were discussed with reference to the fact that being on the stock market presents the company with an opportunity to restructure through mergers and acquisitions. A listed company is subject to constant evaluation reducing the risk of adverse selection (Pagano, 1993) and thus making it a force to reckon with. Respondents felt that growth opportunities available to listed companies had a level of influence of 71.4% in the listing decision. In addition to the presence of restructuring options, the other growth option that is presented to listed companies is the possibility to cross-list (CMA, 2005). This would also have the effect of increasing the company's growth opportunities with regard to expansion of products and services as it would give the company visibility.

Business benchmarking: Refers to a situation where a company can be used by the industry as a reference point. From chart 4.2, the respondents expressed that being used as a benchmark would be a motivating factor. To this effect business benchmarking was assigned a 71.4% level of influence on the listing decision. In comparison to other markets advantages, this would mainly be a consequence of the improved status and financial standing of the company. As such the company may be covered in analyst's reports and may be included in an index e.g. the Australian Securities Exchange, (2012). Listing therefore raises a company's public and investor profile due to the enhanced publicity the company receives through print and electronic reporting of trading in the secondary market (CMA, 2005).

Company valuation: Refers to the determination of the company's worth arising due to the demand and supply forces in the secondary market activity once the company starts trading (CMA, 2005). From chart 4.2, the respondents who felt that valuation was important attached a level of influence at 71.4%. According to the Australian Securities Exchange (2012) being listed on the exchange exposes the company to valuation by the independent market. Further explaining this factor a report published by the London Stock Exchange prescribed that joining a public market places an objective market value on the company's business (London Stock Exchange, 2010). Therefore it would be in a company's best interest to consider public listing as it gives it an edge on valuation as opposed to when the company was to remain private. However, even with the positive valuation effects there were companies who felt that the disclosure requirements that come with being listed have a counter effect. This was seen where the listed company views the exposure as a loss of privacy and thus a loss of competitive advantage (CMA, 2005).

Research and development (R&D) opportunities: Refers to the ability of a company to attract funding for innovation and improvement. As the listed company has more publicity than a non-listed companies it would be in a better position to attract this kind of funding. Further to making them eligible, the listed company has to maintain standards such that the risk of adverse selection is eliminated. Chart 4.2 shows that among respondents R&D carries an influence level of 67.9% as a benefit that would motivate them to consider public listing. Being listed also makes it easier to attract government grants as the criteria would involve maintaining a good financial position as well as a good financial management structure which are requirements for a company to be listed.

Investor diversity: Refers to the presence of different kinds of investors in the market as sources of funds. The main segments that the stock market presents include domestic individual, domestic institutional, foreign individual and foreign institutional. These categories present the company that goes public with the opportunity of sourcing funds from various persons. From chart 4.2, respondents felt that investor diversity was a motivating benefit with a level of influence of 60.7%. This could be linked to market liquidity where the company's security would be constantly tradable due to the differing needs of the different classes of investors (Claessens et al., 2002). However, Harris & Raviv (1991) put forth that increased diversity enhances the risk expected with regard to information asymmetry. This risk may counter the positive influence that

accrues with a span of investors but it does not surpass the risk presented when there is only one investor.

Business relations: Refers to the relationship that a company has with its suppliers and customers. From the results displayed in chart 4.2, business relations were considered to have a level of influence of 60.7%. Nonetheless, according to a CMA (2005) report, being listed potentially enhanced a company's market scope for their products and services. Further to the external customers of the products, being publicly listed provides share option plans for the employees. This in turn works as a motivating factor which consequently improves business relations with the employees (Australian Securities Exchange, 2012).

4.5.1 Summary of benefits

The study sought to find out whether potential companies are aware of the benefits that accrue to being publicly listed and whether these benefits would encourage them to publicly list on the NSE. To determine awareness and establish the motivating factors the respondents were asked to rate each benefit on a 5-point Likert scale where majority of the respondents agreeably considered the listing benefits.

The most prominent benefit considered was the access to a wider capital base which respondents felt was the most motivating at a level of 89.3%. From literature, it has previously been found that a wide capital base provides the platform for companies that want to raise funds for investments and capital expenditures and to meet fixed capital needs (Claessens et al., 2002; Ngugi & Njiru, 2005; Kibuthu, 2005). Prestige and status, business benchmarking, company valuation and growth opportunities were the next most prominent benefits rating 71.4% level of influence. The value placed by companies on prestige and status of being publicly listed comes with the corporate governance standards expected and thus improved corporate earnings (London Stock Exchange, 2010). Where a company has attained the status by being listed their opportunities for growth are imminent. This means that publicly listed companies are littered with opportunities for mergers and acquisitions and cross-border listing as the company is visible and has put itself out for objective market evaluation (Pagano, et al., 1993; CMA, 2005). When a company publicly lists and is open to market evaluation and analysis it presents itself to analysts as a possible industry benchmark. On the Australian Securities Exchange, companies that publicly list have the opportunity to be included in an industry index against which other companies gauge themselves (Australian Securities Exchange, 2012).

Company valuation and research and development opportunities each accounted for an influence level of 71.4% and 67.9% respectively among respondents. When a company publicly lists it allows its worth to be determined based on the demand and supply forces in the secondary market activity once it starts trading (CMA, 2005). However some respondents felt that the exposure and scrutiny could be a channel to lose their competitive advantage. However the research and development opportunities offered to publicly listed companies allow them to engage in innovative research making them better than their competitor(s). Government grants as well as other external funding is more easily entrusted to a listed company due to the reduce risks of adverse selection and moral hazard that accompany private companies. Therefore the respondents favoured this benefit fairly well as a motivating factor.

Investor diversity and improved business relations did not elicit very high response from the non-listed group as they both accounted for 60.7% level of influence. In as much as being publicly listed opens doors of a company to foreign and institutional investors, there were respondents who felt that that in this way there would be severe loss of ownership in the company. As found by CMA (2005) this is especially so for family owned businesses. However, the diversity of investors increases the liquidity of the company's security making it very valuable (Claessens et al., 2002). With reference to business relations, these improve with a company publicly listing. This is so because the scope of its products and services as well as confidence from customers and suppliers are increased (Australian Securities Exchange, 2012). Further to this the employees benefit with stock option plans which have been poised in management as motivating factors.

In conclusion, there seems to have been a possible campaign to improve awareness of listing benefits as the majority of respondents were aware and said that they would be a motivating factor to their listing. This shows the CMA may have addressed the issue of a relative lack of awareness on the benefits of listing (2005).

4.6   Initiatives by the NSE to enhance Company Listings

In order to better answer research question three, after the non-listed group was asked about their perception of listing benefits, a further opinion was sought on their knowledge of the initiatives that the NSE has undertaken so as to encourage equity listings. Based on a research by the CMA in 2005 to find out what had hindered new listings on the NSE there have been initiatives by the NSE to encourage listing. Some of the issues such as cost of listing and lack of

products were highlighted in the report as hindering factors. These factors were considered in this study so as to determine whether there has been an adjustment in favour of potential issuers. In addition to these initiatives there were two other issues that emerged in the course of this study which were considered as possible pulls for companies to the stock market. These new emerging issues were demutualization and the re-classification of listed securities. The level of influence that these initiatives were considered to have on the listing decision are summarized in chart 4.3 below:

Chart 4.3: Level of influence of NSE initiatives on listing decisions
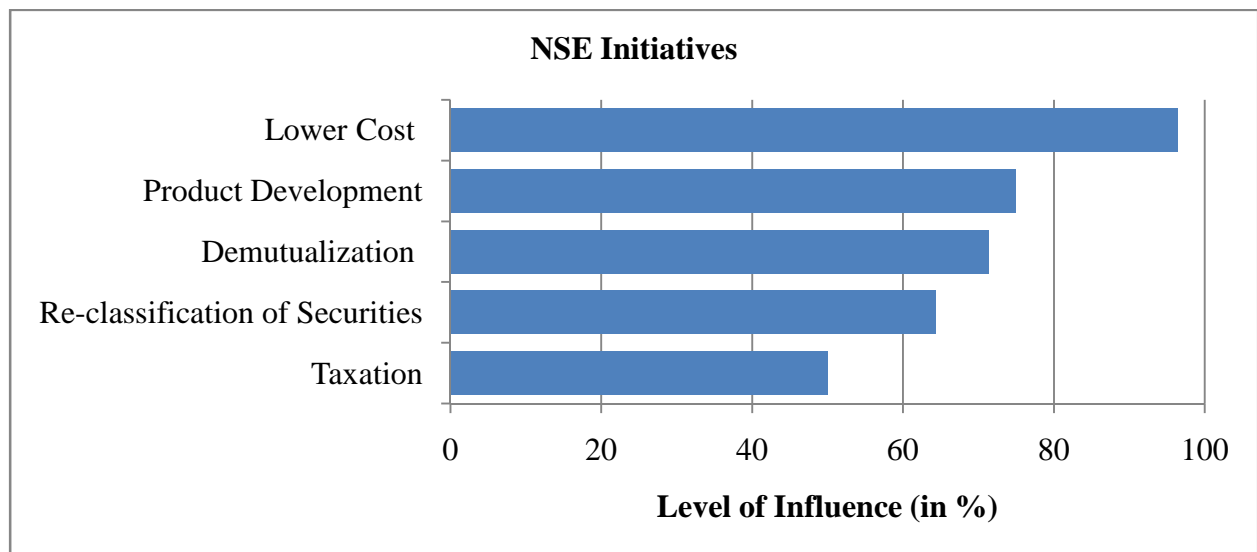
Source: Survey data, author computation

So as to better analyze the effect of the initiatives, the respondents were asked to evaluate the NSE with reference to its development. All the respondents stated that the NSE was still developing and this presented the forum to discuss the initiatives being implemented. Each of the initiatives that were considered is discussed below.

Lower Issuing Costs: The costs that characterize public listing include: direct costs of issuing shares, annual listing fees and management time due to the long process before a company gets approval (CMA, 2005). Response data from chart 4.3 shows that the respondents would be motivated by lower costs of going public and staying listed at a 96.43% level of influence. Further to this, there is the need to make an application to both the NSE and the CMA which in turn increases the cost incurred for approval. Therefore, lowering these costs would mean a direct improvement in market efficiency and an increased attraction to the securities market. However, a CMA report in 2005 compared the perceived cost of listing against bank

borrowing using the Gordon's dividend growth model[12] and determined that floatation was cheaper. The report recommended that potential issuers be sensitized on the perceived high costs of public listing vís a vís the use of bank loans. It is interesting to note that it appears this sensitization has not been carried out as majority of the respondents still felt that there was a need for lower costs.

Product Development: The Kenya capital market is characterized by two main products equity and bonds. In as much as this paper is inclined toward equity listings, respondents felt that it is necessary to consider deepening the capital markets. From chart 4.3, development of new products to encourage use of the capital markets was found to have a 75% level of influence. In this way there would be more products for the potential issuers to work with once they are in the capital market. For instance the CMA noted that the lack of stock exchange integration reduces the benefits that listed companies would be able to enjoy (CMA, 2005). In addition to market presence, integration of stock exchanges would present the listed companies with several opportunities to pursue in other markets as the NSE develops new financial instruments. These findings are consistent with Huyghebaert (2007) who found that the development of the exchange can be improved by the opportunity created through cross-listing. Further to this, recent cross-listing (Bank of Kigali, 2011 and Stanbic Uganda, 2010) would be indicators of the positive impact of the "internationalization" that comes with stock market development. It is therefore possible to derive a direct relationship between product development and equity listings.

Demutualization: Is defined by Aggarwal (2002) as the process of converting exchanges from non-profit, member-owned organizations to for-profit investor owned corporations. However, it is noteworthy that the majority of these respondents only slightly felt that the demutualization may influence their listing decision giving an influence level of 71.43% as presented in chart 4.3. This would be because the NSE is yet to sensitize issuers and investors on

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[12]This is a dividend model used to determine the cost of capital where the floatation costs are taken into account. It is also referred to as the constant dividend growth model:

$K_n = D_1/(P_0 - F) + g$

Where

D_1= the next expected dividend $\{D_0 (1+g)\}$

g = the constant growth rate of dividends,

P_0 = the issue price per share

F = the floatation cost

the implications of a demutualized market. The process also was completed fairly recently (NSE, 2010) and therefore the framework is possibly still being put in place. The high positive response, though reserved, could be an indication that potential issuers have adopted a wait and see approach. This is expected within the first few years as the market understands the change. Huyghebaert (2007) explained this concept stating that global stock exchanges have started operating like industrial firms and no longer have the simple structure that was characteristic of the securities exchange. Therefore, the wait-and-see approach to the effect of a new organization structure of the NSE is justified.

Sector Re-Classification: Refers to the situation where the segmentation of the securities listed on the exchange was transformed from four to twelve industry sectors. The re-classification was done to better organize the securities listed on the exchange after it changed from a stock to a securities exchange. This re-classification did not stir up as much an impact as may have been expected. From chart 4.3, the level of influence established by the re-classification of securities was at 64.29%. A majority of the respondents expressed indifference to the re-classification of securities. The fact that listed securities are better classified in their industry segments improves the objectivity of company valuation and comparison based on industry segment. This was expected to further encourage companies' attitude toward the exchange as the listed securities were better arrange, however it this was not the case.

Taxation: There was no evidence to affirm the influence that the taxation rebate for companies newly listed on the stock exchange of 25% corporate tax for the first 5 years has. It was expected that there would arise a consideration of the tax rebate among the respondents. However, this was not the case as there were no companies from the non-listed group that cited taxation as an influencing factor, thus attaining a rank of 50%. Therefore, the study is consistent with Ngugi & Njiru (2005) who found that companies listing had little or no regard for taxation.

4.6.1 Summary on Initiatives

The study concentrated on five main initiatives that were considered by the NSE and implemented or are in the implementation process as a way of identifying what would encourage public listings. The respondents were asked to rate each initiative on a 5-point Likert scale so as to determine whether they know about the initiative and whether it would motivate them to consider public listing. From the response data it is noted with concern that a number of

respondents were indifferent, which may mean they did not take the specific factors into consideration or they were not aware about them.

The most prominent initiative that respondents felt needs to be addressed is the issuing cost. At an influence level of 96.43%, a reduction in the cost implication that comes with listing should be considered in order to encourage potential issuers. However an earlier research by the CMA showed that high issuing costs are perceived and that there needs to be an awareness campaign on the perceived high costs. Nevertheless, respondents felt that costs were a hindrance. The next most prominent initiative that respondents felt needed to be taken seriously was the introduction of a wider scope of products. For instance stock exchange integration enables issuers to access available products on other markets which may not be presently available on the domestic market. At this the product development issue was considered by respondents to play a relatively major role in their listing decision with an influence level of 75% (chart 4.3).

Demutualization of the stock exchange was found to have a 71.43% level of influence. It can be inferred that better corporate governance and thus better corporate earnings would be expected from listed companies (London Stock Exchange, 2010). In this regard, listed companies will thus attract favourable market valuation. The last of the initiatives was the re-classification of listed securities in August 2011. The re-classification was done to improve the segmentation of listed securities especially when it came to industry comparison (NSE, 2011). This re-classification was expected to be impressive to potential issuers as they would be better classified and thus obtain a more objective industry analysis. Nonetheless, it was found to influence the listing decision a level if 64.29%.

4.7 Chapter Summary

This chapter has presented the key findings of the study. The first part of the chapter presented the opinions sought from the non-listed group through questionnaires compared with the listed group data from their prospectuses. The findings from this section are outlined as follows: a summary of factors influencing company listings; a summary on listing benefits; NSE initiatives; and a conclusion.

4.7.1 Summary of Factors Influencing Company Listings

The analysis of factors influencing company listings was considered from two perspectives: listed and non-listed companies. Among the listed group market specific factors

were considered based on prior literature and those selected for this study were stock market liquidity, stock market volatility, political environment and legal and regulatory framework. Based on data from the companies' prospectuses it emerged that the political environment was the most influential factor with regard to the listing decision. Statistical analysis provided overwhelming evidence ($p<0.01$) in support of the alternative hypothesis and a significant positive relationship was established between political environment and company listings. Consistent with African authors who stated that the political environment of African states necessarily influences financial development and thus growth of their stock markets (Yartey & Adjasi, 2007; and Yartey, 2008). A favourable political environment is usually considered from the perspective of the political regime in a country. A change in political regime from autocratic to democratic was found to be a factor encouraging equity listings especially through privatization of previously government-owned companies (Ngugi & Njiru, 2005). Following in rank was the stock market liquidity where the respondents expressed the view that a liquid stock market encouraged them to publicly list. This is because it provided an active market especially where the company needed long term capital. Consistent with Ngugi & Njiru (2005) and Huyghebaert (2007) this study also found that companies naturally seek liquid markets in which to issue their stock. In addition to the availability of long term capital for the companies, the listed group cited the presence of increased number of investors given the encouragement of individual investors. A significant positive relationship was established between stock market liquidity and company listings. There was strong evidence ($0.01<p<0.05$) for the study to reject the null and accept the alternative hypothesis.

The third ranked factor was stock market volatility which was measured using the NSE 20-share index. Using this measure returned results inconsistent with literature where high volatility has a negative relationship with company listings (Demirguc-Kunt & Levine, 1996; Yartey & Adjasi, 2007; Senbet & Otchere, 2008) where annualized returns had been used. In this regard, the regression analyses returned a significant ($0.01<p<0.05$) positive relationship between stock market volatility and company listings where a negative relationship was expected. There was thus strong evidence for the study not to reject the null hypothesis in favour of the alternative. A significant positive correlation was established between stock market volatility and stock market liquidity thus consistency of the study with Demirguc-Kunt & Levine (1996). In addition to these factors, other market factors emerged from the study that had not

been considered. These were industry influence and market automation. The respondents felt that the regulation of the industry in which they operate would either encourage or discourage their listing depending on how stringent the regulations were. Companies in the technology and telecommunications industry expressed the view that a deregulation and reduced interference especially by the government would encourage listing. Taxation was found not to have any influence on the listing decision, consistent with Ngugi & Njiru (2005) who found that the tax rebate for newly listed companies had little or no influence on their listing decision.

When considering the non-listed group, company specific factors of age, size, profitability and capital structure were considered in addition to the market factors. For this group the legal and regulatory framework was split into its constituents of listing requirements, disclosure, IFRS compliance and fair trading practices. The findings determined that the listing requirements among the legal and regulatory framework and political environment were the most deterring factors at an influence level of 46.43% and 42.86% respectively. This is consistent with the findings of the CMA in a similar research in 2005 where they found that potential issuers are not very comfortable with the disclosure regulation as it exposes the company to competitors. From the results displayed in chart 4.1 all factors were below the 50% threshold meaning that their level of influence on the listing decision was relatively low. From a Likert scale perspective this means that majority of the respondents felt that most of the factors were not factors hindering their being listed. From the tested factors the results did not elicit all the factors that the non-listed companies consider in the listing decision. Therefore from the questionnaire the researcher was able to gather more information from the respondents based on conversations held with the respondents, under a basic interview structure. The factors that were prominently mentioned were the company structure, the public scrutiny, lack of need for long term financing and dilution of ownership. With regard to the company structure it was found that the type of company; whether locally owned, or multinational and its internal management was the determinant of the appropriateness and timing of listings. With reference to public scrutiny the respondents felt that the exposure and visibility that comes with being listed on the exchange was too much for them to handle. In as much as public scrutiny helps a company improve in its corporate governance, the respondents felt that there was too much exposure. The respondents also cited the fact that there the company was a family-owned business or a conglomerate of friends who did not want to release their hold on the company. Also as the respondents were not

ready to expand their businesses as such had no need for long term financing that the capital market offers.

4.7.2 Listing Benefits

The study found out that the most motivating benefit for a company to consider listing on the stock exchange was the capital base that they have access to. This is especially the case because companies mainly source funds to meet their long term capital needs (Claessens et al., 2002; and Ngugi & Njiru, 2005; Kibuthu, 2005). The prestige and status that follows a listed company proved to be a very attractive benefit which in turn enhances the chances of the company becoming an industry benchmark. This is due to the corporate governance standards that being listed requires a company to maintain. Therefore, these benefits were ranked the highest motivators by the respondents.

When a company is publicly listed it has its worth determined by demand and supply forces such that it would need to maintain very high standards of corporate governance and company performance. On the flipside, on being listed a company exposes itself to scrutiny and could lose its competitive advantage. In this regard a need to engage in research and development arises so as to improve the products and services the company offers and to maintain its competitiveness. These opportunities for research and development, with specific regard to funding, are more available to the company that is listed. This is because it is an "exposed" company thus the financiers have access to publicly available data on its performance reducing the risk of information asymmetry which may disadvantage a private company. In addition to this, there are improved business relations especially with reference to the customers and suppliers when a company is listed. However, this benefit did not elicit as much enthusiasm as would have been expected. Further to the company valuation, the company has the opportunity of having a diverse range of investors. These would range from individual to institutional and domestic to foreign. Due to the fact that investors have diverse needs the company stock is likely to be very liquid and thus improving its valuation. Nevertheless, this benefit was not as frequently considered.

In conclusion, the respondents were relatively aware of the benefits that accrue to listed companies and these would constitute motivating factors to their listing decision.

4.7.3 Initiatives by the NSE to encourage company listings

Five initiatives that characterize a developing stock exchange were considered in this study: lower cost of issuing stock, product development, demutualization, re-classification of listed securities and taxation. The level of influence as considered by the respondents for each of the initiatives was found to be above the 50% threshold except for taxation which was at 50% representing a zero rate of influence. This shows that the tax rebate given to newly listed on the exchange of a corporation tax rate of 25% was not very influential. The most prominent initiative was the consideration of lowering issuing costs to encourage listing at 96.43%. Following a research by the CMA (2005), a campaign to educate potential issuers on the perceived costs was initiated. However, with the rate being that high could show that the campaign did not reach all potential issuers. With regard to product development, the respondents felt that there was a need to increase the options offered by the exchange as instruments for investment. Respondents were not very conversant with the demutualization of the stock exchange and thus rated this initiative with hesitation as majority only slightly felt that it would be a consideration in their listing decision. In this respect, there was a wait-and-see response with regard to demutualization. The re-classification of listed securities did not elicit much favour from the respondents who did not feel that it would motivate their listing.

In conclusion the NSE would need to engage a campaign on the advantages of demutualization and re-classification of listed securities to potential issuers of securities.

CHAPTER FIVE
CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS

5.0   Introduction

This chapter presents a summary of the study giving the implications of the findings based on the research objectives, conclusions and recommendations. It is organized as follows: first the summary and implications of the study are presented; second recommendations for action and areas of further study are made and third limitations experienced during the study are presented.

5.1   Summary of Findings

This study made an attempt to respond to Ngugi & Njiru (2005) recommendation to include a survey of non-listed companies in determining the slow growth of the NSE primary market. The study examined the factors influencing growth of the market based on publicly available data from new equity listings between 2000 and 2009. It compared the results from both the listed companies and the non-listed companies to determine which of the factors were highly regarded. From the non-listed companies the study was also able to establish other unique issues that were specific to the companies which had previously been scantily considered in literature. It was also able to ascertain what benefits accruing to listed companies would encourage the non-listed companies to consider listing as well as the initiatives that NSE should consider to motivate listing. The key findings and implications of the study were as follows:

5.2   Discussion of Findings

The first objective of this study was to determine the specific factors influencing company listings based on two groups of companies; those listed and those that are not listed but are potential issuers. The key findings and implications were as follows:

Based on data sourced using a questionnaire for the non-listed group and prospectuses for the listed group, market specific factors and company specific factors were studied. From the results only market specific factors; stock market liquidity, volatility, political environment and the legal and regulatory framework were found to be influential and significant. Company specific factors; company age, size, profitability and company structure proved not to have any significant influence on the listing decision of the companies. Of the market factors the most

influential factor was the political environment among the listed companies which is characteristic of African markets (Yartey, 2008). The implication of this is that a favourable political environment needs to be present to encourage stock market development. Consistent with the World Bank and other African authors (Yartey & Adjasi, 2007), the political environment of the country contributed to its financial development and consequently its stock market. Stock market volatility ranked fourth with reference to the listed group and findings provided that, based on the NSE 20-share index, companies are attracted to the market when this index is high. This implies that market activity encourages companies to list on the market as it creates confidence in the market. It also indicated that the measures of volatility are not correlated. It was expected that high volatility would have a negative influence on company listings as would be the case when it is measured using the standard deviation of annualized returns. However, this study found that the higher the index the more likely companies would be to list. However volatility returned a positive relationship where a negative one was expected. At this, the study could not accept the alternative hypothesis as a Type II error would arise. The implications of these findings are consistent with the empirical findings as the most prominent factor was the political environment, then market liquidity and finally volatility. Since the listed group companies have already met the legal requirements for listing, the legal and regulatory framework factor was excluded from the model. This was because historical data of the listed group was used for regression.

Based on the results presented in chart 4.1 it was evident that most companies in the non-listed group felt that the legal and regulatory framework was not favourable with special reference to the listing requirements at a level of influence of 46.43%. These findings were consistent with Asea (2003) who established that a proper framework creates an enabling environment to encourage participation of enterprises in the stock exchange. Therefore, an overly stringent market would choke itself as it would deter companies from the stock exchange. Perotti & Laeven (2002) expressed the view that a favourable legal and regulatory framework encourages participation in the stock market. Therefore, results from the non-listed group support findings by Yartey & Adjasi (2007) that the framework of the NSE needs to be improved to encourage company listings. The political environment was found to be the second most influential factor among the non-listed group at a 42.86% level of influence. This means that the companies are deterred from or attracted to the market based on the status of the country's

political situation. The non-listed group findings show that the companies' listing decision is influenced by the country's political environment. These findings are consistent with the World Bank (2009) research where the polity measure used determined that the more stable, i.e. democratic than autocratic a country was the likelier the growth of its financial market. These findings were consistent with authors on African markets (Yartey & Adjasi, 2007; Andrianaivo & Yartey, 2009), who found that the political environment has a major influence on stock market development. This is the case as the results explain the impact that changes in political regimes have on financial markets development.

Other factors influencing the listed companies' listing decision emerged from this study in addition to the tested factors. The industry in which a company operated was considered an influential factor in their listing decision. This was in reference to the (de) regulation of the industry and interference by the government such that the company feels stifled. These findings were established from the companies listed under the telecommunications industry segment of the NSE. Further to this the companies expressed the view that introduction of automated trading systems as well as the central depository settlement and clearing system provided a more efficient market. This meant that the capital markets were more attractive to the companies. In as much as this may not have been a very major factor in the decision making, it did contribute to the companies' opting for the capital markets. In addition to this, it may be seen that a shift from manual to automated systems removes the bottlenecks that exist in the listing process in terms of interaction between the company and investors.

The non-listed group expressed four issues that have prevented their listing on the capital markets. Firstly, public scrutiny that comes with the exposure and visibility that a listed company receives deterred them. Whereas it was expected that it would be a factor to reckon with, the companies were of the opinion that this was necessary when the company was considering an expansion strategy. They also gave the opinion that maintaining the company's image with regard to profitability and corporate governance was a fairly expensive exercise which they were not yet prepared for. Secondly come of the respondents expressed the view that dilution of ownership as would be required under the listing regulations was a deterrent. This was especially the case with family owned businesses and those started by an individual and eventually grown into a company. Interestingly these respondents had not ruled out the possibility of listing but it was not a priority to them during the time of the study. This factor ties in with the third issue that

arose which refers to it not being necessary to raise long term funds as the company was not ready to expand. Fourthly, the company structure of the company in terms of organization and management structure. This refers to whether the company was locally owned or a multinational or its subsidiary such that the decision making process is reverted to the headquarters of the company. The timing and appropriateness of the listing was to be determined by management based on the needs of the company. The respondents were of the opinion that the listing decision was to be determined by the company's growth stage based on the lifecycle theory.

The second objective of this study was to establish listing benefits that would influence the listing decision. To do this, the study presented the respondents with the benefits that accrue to listed companies and then asked to rank them. Respondents were aware of the benefits and majority felt that these benefits would motivate their listing decision. The most prominent of the listing benefits considered motivating was the access to a wider capital base at an influence level of 89.3% that would enable them source long term funds for capital intensive projects. The implication of this would be that the companies go to the capital markets mainly when sourcing long term funds. The least considered benefits were investor diversity and business relations at 60.7% each. The implications of these findings would be that; one, for companies in as much as the range of investors would be increased when the company is publicly listed it was not highly desired due to the perceived dilution. Secondly, the company had established its necessary business relations and would least likely consider the capital markets as a factor it would use to pitch itself in the business environment. The third objective was to determine the effectiveness of the initiatives by NSE to encourage listings. Of the used initiatives, the most prominent among respondents was the element of lowering costs. These costs did not only relate to listing costs but also to the cost of maintaining listed status. Further to this it was found that the NSE needs to be more innovative on products offered to the potential issues of securities. With regard to demutualization, the companies were hesitant implying that the market needs to give users time to adapt to this phenomenon. The re-classification of listed securities was not an initiative that respondents ranked highly. This indicated that as much as the re-classification makes industry analysis better and more objective, companies have possibly not understood its importance. The taxation rebate constantly offered to newly listed companies was still not found to have a significant level of influence on the listing decision.

5.3   Recommendations

Based on the findings and implications of this study, the following recommendations have been made: In order to encourage company listings policy makers need to ensure that government regulations are not a hindrance to public listing. The deregulation of industry sectors and reduced political interference has a direct impact on company listings. To encourage these listings, the NSE needs to consider lowering the initial cost of listing and maintenance of being publicly listed. Further to this, the NSE needs to consider widening the product range offered so as to provide potential issuers with options. However, it is necessary to consider the fact that Small and Medium Enterprises (SMEs) constitute majority of the companies in Kenya's private sector. With the introduction of a second tier market (SMEx) listings may increase. However, since this is a new phenomenon, it needs time to grow before its impact can be evaluated. In marketing the second tier, the NSE needs to consider marketing the primary tier for potential larger companies by creating awareness on the benefits that accrue to the companies that are listed.

Recommendations for further study:

i.   Further research can be conducted to determine the impact that the SMEx tier being introduced in the market will have on equity listings.

ii.   Further study can be done on the market factor stock market volatility using the measure of stock price movement in comparison with share index.

iii. Further study could focus on other company factors established, i.e. the organizational structure, ownership and type of company.

iv.   Further research could also be done on other market factors such as foreign investment, cross-listing and market concentration.

v.   Further research could be conducted on the impact of demutualization when the NSE implements it.

5.4   Limitations to the Study

The limitations experienced in the course of this study were: (1) the company registrar's office does not have a list classifying the companies as either large or small according to asset base. Therefore obtaining the population and sample was strained. In addition to this majority of the companies in Kenya are in the SME category. Therefore the number of companies that had met the listing requirements fully was very small. In addition, unlisted companies are not

required to publish annual reports or to disclose any company information on their websites. The researcher experienced delays due to the bureaucratic processes of companies to release information and thus fill the questionnaire. Further to this, companies that have recently relayed in the media their intention to list failed to respond. For the listed group, some of the companies were dropped from the study due to missing information. The unavailability of company prospectus due to loss or removal from the websites as a result of the time period was a hindrance. By law companies are required to maintain records for 7 years, however, some companies did not have any information further than 5 years that was publicly available. This necessitated the researcher to base the study on the basic requirement of size. Company websites and directory information was partly outdated and this posed a hindrance to using available information to contact companies. The researcher thus had to use personal contacts to source necessary information.

Regulations for companies in some industries such as the tobacco industry hindered data collection. By law these companies are forbidden to conduct above the line advertising, answering the questionnaire was construed to be a way of marketing. There was also the limitation of company restructuring during the period of study and as such there was no-one to respond to the questionnaire. Due to these limitations constituting a matched sample proved very difficult.

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APPENDICES

Appendix 1: List of African Stock Exchanges and year of establishment

	Country	Exchange	Location	Founded	Listings
1	West African Regional Stock Exchange	Bourse Régionale des Valeurs Mobilières	Abidjan	1998	39
2	Algeria	Bourse d'Alger	Algiers	1997	7
3	Botswana	Botswana Stock Exchange	Gaborone (SSA)	1989	44
4	Cameroon	Douala Stock Exchange	Douala	2001	2
5	Cape Verde	Bolsa de Valores de Cabo Verde*	Mindelo		
6	Egypt	Egyptian Exchange	Cairo	1883	378
7	Ghana	Ghana Stock Exchange	Accra	1990	28
8	Kenya	Nairobi Stock Exchange	Nairobi	1954	48
9	Libya	Libyan Stock Market	Tripoli (North)	2007	7
10	Malawi	Malawi Stock Exchange	Blantyre (SSA)	1995	8
11	Mauritius	The Stock Exchange of Mauritius	Port Louis (North)	1988	40
12	Morocco	Casablanca Stock Exchange	Casablanca	1929	81
13	Mozambique	Bolsa de Valores de Moçambique	Maputo (SSA)	1999	
14	Namibia	Namibia Stock Exchange	Windhoek	1992	
15	Nigeria	Abuja Securities and Commodities Exchange	Abuja (SSA)	2001	
16	Rwanda	Rwanda Over The Counter Exchange	Kigali (SSA)	2008	2
17	South Africa	AltX - launched by JSE 2003	Johannesburg	2003	51
		Bond Exchange of South Africa - merged with JSE 2009	Johannesburg	1989	~400
		JSE Limited*	Johannesburg	1887	472
		The South African Futures Exchange - acquired by JSE 2001	Johannesburg	1990	
18	Sudan	Khartoum Stock Exchange*	Khartoum		
19	Swaziland	Swaziland Stock Exchange	Mbabane	1990	10
20	Tanzania	Dar es Salaam Stock Exchange	Dar es Salaam (SSA)	1998	11
21	Tunisia	Bourse des Valeurs Mobilières de Tunis	Tunis	1969	56
22	Uganda	Uganda Securities Exchange	Kampala (SSA)	1997	14
23	Zambia	Agricultural Commodities Exchange of Zambia	Lusaka		
		Lusaka Stock Exchange	Lusaka	1994	16
24	Zimbabwe	Zimbabwe Stock Exchange	Harare (SSA)	1993	81

Source: (United Nations Development Programme (UNDP), 2003)

Appendix 2: Indicators of Stock market Development for the period 1990-2004 in Developing
Developing   **Countries**
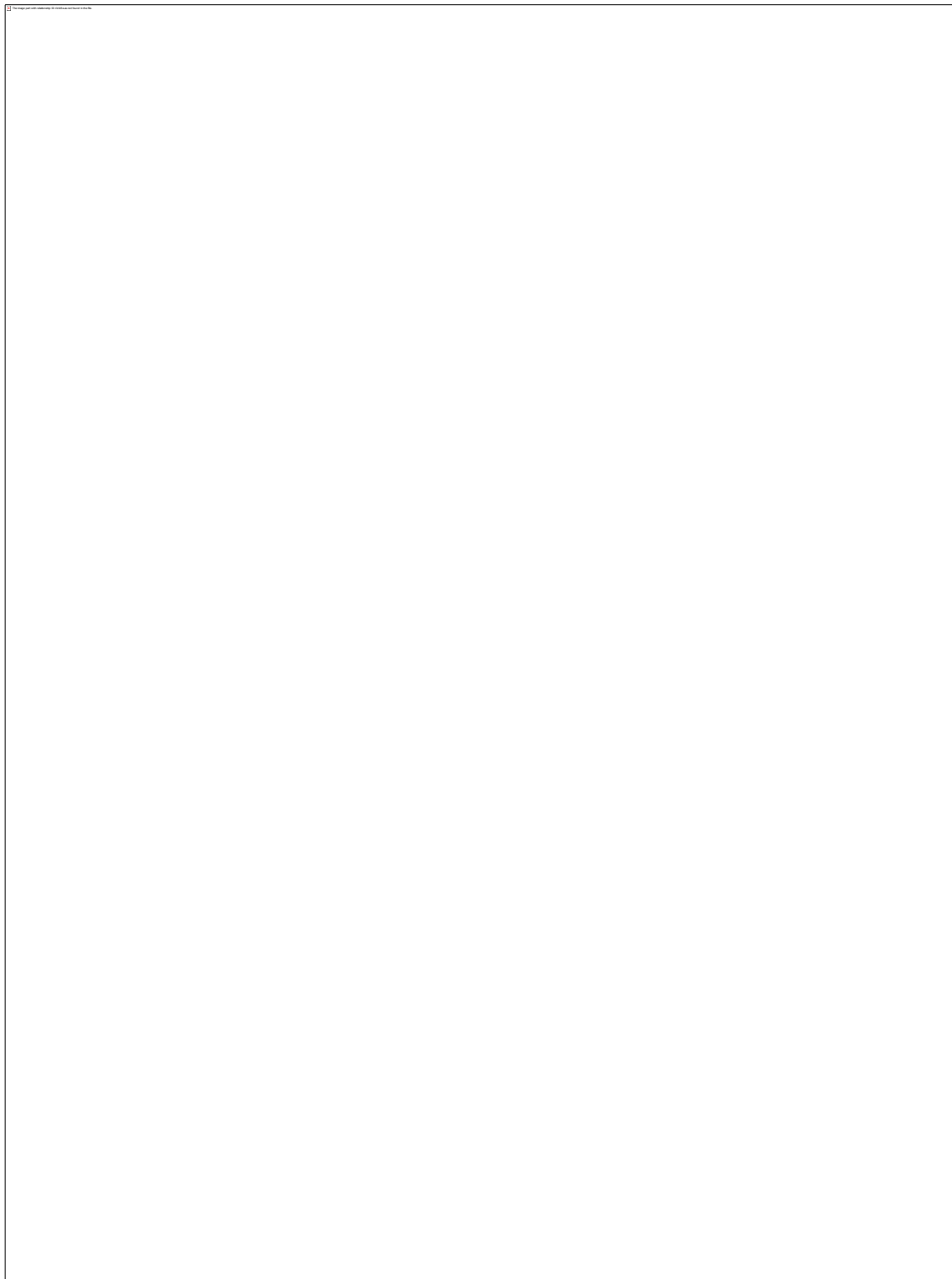
Source: World Development indicators &Yartey (2008)

Appendix 3: Indicators for Stock Market Automation for stock markets in Africa

Country	Clearing and Settlement	Trading System	Trading Days
Algeria	Electronic	Electronic	1
Botswana	Electronic	Manual	5
Cote d'Ivoire	Electronic	Electronic	5
Egypt	Electronic	Electronic	5
Ghana	Manual	Manual	5
Kenya	Electronic	Electronic	5
Malawi	Manual	Manual	5
Mauritius	Electronic	Electronic	5
Morocco	Manual	Electronic	5
Namibia	Manual	Electronic	5
Nigeria	Electronic	Electronic	5
South Africa	Electronic	Electronic	5
Swaziland	Manual	Manual	5
Tanzania	Electronic	Electronic	5
Tunisia	Electronic	Electronic	5
Uganda	Manual	Manual	5
Zambia	Electronic	Manual	5
Zimbabwe	Manual	Manual	5

Source: Allen, Otchere, &Senbet (2010) and the CMA (2010)

Appendix 4: Listing Requirements schedule

Eligibility Requirements for Public Offering of Shares and Listing as cited by The Capital Markets Securities Public Offers Listing and Disclosure Requirements (2002)	
Requirement	**Main Investment Market Segment**
Incorporation Status	The issuer must be a public company limited by shares and registered under the companies Act (Cap 486, Laws of Kenya)
Size: Share Capital	The issuer shall have a minimum authorized issued and fully paid up ordinary share capital of fifty million shillings
Net Assets	Net assets before immediately before the public offering or listing of shares should not be less than one hundred fifty million shillings (Kshs. 150,000,000)
Free transferability of shares	Shares to be listed shall be freely transferable and not subject to any restrictions on marketability or any pre-emptive rights
Availability and reliability of financial records	Audited financial statements complying with IFRS for an accounting period ending on a date not more than four months prior to the proposed date and 6 months for an already listed firm. Preparation of financial statements for the last accounting period on a going concern basis and the audit report must not contain any emphasis on matter or qualification on this regard.
Competence and Sustainability of directors and management	Must not be in breach of loan covenants. No director shall have any petitions for bankruptcy for at least two years prior to issuing date. No pending petitions for the corporate body either.

Appendix 5: Political Environment Dataset for Kenya

Country	Year	Democ_Polity IV	Autoc_ PolityIV	Polity2_ PolityIV	
Kenya	2000	2	4	-2	
Kenya	2001	2	4	-2	
Kenya	2002	8	0	8	
Kenya	2003	8	0	8	
Kenya	2004	8	0	8	
Kenya	2005	8	0	8	
Kenya	2006	8	0	8	
Kenya	2007	7	0	7	
Kenya	2008	7	0	7	
Kenya	2009	7	0	7	
Key:					

Democ_Polity IV: Institutionalized Democracy: Democracy is conceived as three essential, interdependent elements. One is the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders. Second is the existence of institutionalized constraints on the exercise of power by the executive. Third is the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation. Other aspects of plural democracy, such as the rule of law, systems of checks and balances, freedom of the press, and so on are means to, or specific manifestations of, these general principles. The Democracy indicator is an additive eleven-point scale (0-10).

Autoc_Polity IV: Institutionalized Autocracy: "Authoritarian regime" in Western political discourse is a pejorative term for some very diverse kinds of political systems whose common properties are a lack of regularized political competition and concern for political freedoms. We use the more neutral term Autocracy and define it operationally in terms of the presence of a distinctive set of political characteristics. An eleven-point Autocracy scale is constructed additively.

Polity 2_Polity IV: Revised Combined Polity Score: This variable is a modified version of the POLITY variable added in order to facilitate the use of the POLITY regime measure in time-series analyses. It modifies the combined annual POLITY score by applying a simple treatment, or ""fix," to convert instances of "standardized authority scores" (i.e., -66, -77, and -88) to conventional polity scores (i.e., within the range, -10 to +10)

Source: World Bank Data Set (2010)

Appendix 6: Questionnaire

Questionnaire

This questionnaire has been designed to gather information from the finance managers of large privately held organizations and is meant for academic purposes only. Please complete each section as instructed. All the information given in this questionnaire will be held in confidence.

Section A: Company Profile (Please tick as appropriate)

1. Name of the Company *Click here to enter name of your company*

2. Age of the company since establishment

   5 – 15 years ☐

   16 – 25 years ☐

   26 – 35 years ☐

   Over 35 years ☐

3. What industry sector best classifies your company:

   Agricultural ☐

   Commercial and Services ☐

   Telecommunication and Technology ☐

   Automobiles and Accessories ☐

   Banking ☐

   Insurance ☐

   Investment ☐

   Manufacturing and Allied ☐

   Construction and Allied ☐

   Energy and Petroleum ☐

4. What is the size of your company with reference to asset base

   150 – 249 million ☐

   250 – 349 million ☐

   350 – 449 million ☐

   450 – 549 million ☐

   550 million and over ☐

Section B:

Factors influencing Listing decisions

1. Which of the following factors would you consider to have influenced your company not being listed on the NSE?

	1	2	3	4	5
Factor	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Market specific factors					
Market Liquidity (i.e. presence of investment alternatives)	☐	☐	☐	☐	☐
Volatility of market prices (movement of share prices)	☐	☐	☐	☐	☐
Valuation of companies in the economic sector	☐	☐	☐	☐	☐
Regulatory and legal framework • Disclosure	☐	☐	☐	☐	☐
• Compliance with IFRS	☐	☐	☐	☐	☐
• Listing requirements	☐	☐	☐	☐	☐
• Fair trading practices	☐	☐	☐	☐	☐
Political Climate	☐	☐	☐	☐	☐
Company specific factors					
Capital structure (debt to equity ratio)	☐	☐	☐	☐	☐
Size of the company (asset base)	☐	☐	☐	☐	☐
Age of the company	☐	☐	☐	☐	☐
Profitability of the company (Return on Assets)	☐	☐	☐	☐	☐

Specify any other factor (s) that you consider unique to your company.
_____
_____
_____
_____

Listing Benefits

2. Which of these listing benefits would influence your company's listing decision:

Listing Benefit	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
Access to a wide capital base	☐	☐	☐	☐	☐
Accessing the prestige and status that accrue to public listing	☐	☐	☐	☐	☐
Diversity in range of investors	☐	☐	☐	☐	☐
Improving your business relations with existing and potential customers and suppliers	☐	☐	☐	☐	☐
Research and development in growth opportunities	☐	☐	☐	☐	☐
Mergers and acquisition (growth opportunities)	☐	☐	☐	☐	☐
Business benchmarking	☐	☐	☐	☐	☐
Currency for planning future strategic growth of the company (valuation)	☐	☐	☐	☐	☐

Any other? Please specify

_____
_____

3. Please select which of these initiatives by the NSE would attract you to publicly list on the stock exchange:

Initiatives	1 Not at all	2 Don't know about it	3 Indifferent	4 Slightly	5 Very much
Improved market efficiency to lower cost of raising capital	☐	☐	☐	☐	☐
Dynamic product development (increased range of securities)	☐	☐	☐	☐	☐
Demutualization of the exchange	☐	☐	☐	☐	☐
Re-classification of listed securities	☐	☐	☐	☐	☐

Any other? Please specify.

_____

_____

What is your opinion of the growth and development of the Nairobi Stock Exchange with regard to the number of companies listed?

Well developed   ☐

Still developing   ☐

Stagnant   ☐

No idea   ☐

Thank you for your time.

Appendix 7: List of Companies

Listed Group	Non-Listed Group
KenGen Limited	Hashi Energy Limited
Eveready East Africa Limited	Chartis Kenya Insurance Limited
Access Kenya Group Limited	Fina Bank Limited
Safaricom Limited	Galana Oil Limited
Co-operative Bank Limited	Investment and Mortgages Bank Limited
Kenya Re-Insurance Company Limited	Heritage A.I.I Limited
Equity Bank Limited	Family Bank Kenya Limited
Mumias Sugar Company Limited	Madison Insurance Company Limited
Centum Investments Limited	International Life House Limited
Scangroup Limited	Mastermind Tobacco (K) Limited

Appendix 8:

Table showing conversion of Likert scale to percentage level of influence for factors influencing non-listed companies

Variable	R1	R2	R3	R4	R5	R6	R7	Mean	Adjusted to Scale	Percentage of Mean
IFRS Compliance	1	2	1	2	2	1	1	1,43	0,43	10,71
Profitability	1	2	1	2	2	2	1	1,57	0,57	14,29
Trading Practices	3	1	2	2	2	2	1	1,86	0,86	21,43
Volatility	2	2	2	2	2	2	1	1,86	0,86	21,43
Capital Structure	1	3	2	2	3	2	1	2,00	1,00	25,00
Company Size	1	3	1	4	2	2	1	2,00	1,00	25,00
Age	1	2	1	4	4	2	1	2,14	1,14	28,57
Disclosure	4	2	2	4	2	1	1	2,29	1,29	32,14
Liquidity	2	3	4	1	4	2	1	2,43	1,43	35,71
Political Environment	4	2	2	3	4	3	1	2,71	1,71	42,86
Listing Requirements	4	3	2	4	4	2	1	2,86	1,86	46,43

Appendix 9:

Table showing conversion of Likert scale to percentage of influence for the Listing Benefits

Listing Benefits	R1	R2	R3	R4	R5	R6	R7	Mean	Adjusted to Scale	Percentage of Mean
Investor Diversity	3	3	4	4	3	3	4	3,43	2,429	60,7
Business Relations	4	3	4	3	3	3	4	3,43	2,429	60,7
R&D Opportunities	2	3	4	5	4	4	4	3,71	2,714	67,9
Prestige & Status	4	4	4	3	4	4	4	3,86	2,857	71,4
Growth Opportunities	4	4	4	4	4	3	4	3,86	2,857	71,4
Business Benchmarking	3	4	4	4	4	4	4	3,86	2,857	71,4
Company Valuation	4	3	4	5	4	3	4	3,86	2,857	71,4
Wide Capital Base	4	5	5	5	4	5	4	4,57	3,571	89,3

Appendix 10:

Table showing the conversion of Likert scale to percentage of influence for the NSE Initiatives

NSE Initiative	R1	R2	R3	R4	R5	R6	R7	Mean	Adjusted to Scale	Percentage of Mean
Taxation	3	3	3	3	3	3	3	3,00	2,00	50,00
Re-classification of Securities	3	4	3	4	3	3	5	3,57	2,57	64,29
Demutualization	3	4	4	4	3	4	5	3,86	2,86	71,43
Product Development	4	4	5	3	4	3	5	4,00	3,00	75,00
Lower Cost	5	5	4	5	5	5	5	4,86	3,86	96,43