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EFFECT OF MARKET INFRASTRUCTURE FACTORS ON THE DEVELOPMENT OF NAIROBI SECURITIES EXCHANGE

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Abstract

This study aimed to find out the effect of selected factors on the development of the Nairobi Securities Exchange. The general objective of this study was to determine the effect of selected factors on the development of the NSE. The objective was to determine the of market infrastructure factors on the development of Nairobi securities exchange Both primary and secondary data collection methods were used. A structured data collection questionnaire was used to collect data on market infrastructure factors. The population of study was the Nairobi Securities Exchange. Secondary data was collected on market capitalization from 2006 to 2015 which was used as the indicator of NSE development. This study used a descriptive research design to describe the empirical data. A regression model was used for data analysis and hypothesis tested with a 0.05 significance level. The results confirm that Nairobi securities Exchange development is positively correlated to market information, market efficiency, market openness, market transparency, transaction processing system and transaction/operating cost and legal and regulatory framework. .Given the effect of the predictor variables on NSE development, the government should improve the market infrastructure which is the center on which financial market revolves. This can be done through initiation of policies that foster growth and development as countries liberalize their financial systems and further enhance domestic resource mobilization, public education awareness programmes, elimination of excessive barriers to the market and putting in place tax regimes and incentives geared towards stimulating companies to be listed in the stock market. Public education awareness programme. This study is of great importance to researchers and academics, government policymakers, regulators and investors and the results should lead to the creation of an enabling environment, development of good regulatory framework and thus faster development of the securities market.

Introduction

Financial markets play a fundamental role in the economic development of a country by facilitating the flow of funds from savers to investors and thus mobilizing domestic savings and efficiently channelling them into productive investments. Financial intermediation between borrowers and savers can be done through equity financing which is only possible through the development of capital markets which deal with securities and are associated with financial resource mobilization on a long term basis. The securities market forms a significant component

A well-functioning capital market facilitates the allocation of capital to productive use in companies by encouraging the placement of shares and bonds in the primary market. It gives investors an efficient means of buying or selling assets in a liquid secondary market, and it requires companies to provide accurate information to investors to facilitate them to make sound investment decisions and by doing so promotes good corporate governance. A typical capital market comprises of the following institutions: Banks, insurance companies, mutual funds, mortgage funds, finance companies and stock markets. A stock market is a financial institution where securities are bought and sold (Fauziah Wan Yusoff, 2015).

Capital markets are expected to accelerate economic growth by boosting domestic savings and increasing the quantity and quality of investment. Thus a well-organized capital market is crucial for mobilizing both domestic and international capital and for serving as a medium for transferring part of the business ownership of foreign corporations to the citizens. Central to the efficient functioning of a capital market is the development of the securities market. In particular, capital markets encourage economic growth by providing an avenue for growing companies to access capitals at lower cost (Chepkoiwo, 2011).

The securities market is one of the most important sources for companies to raise funds as it enables businesses to be publicly traded thus raise additional capital in a public market. An attractive feature of investing in stocks, is the liquidity an exchange provides enables investors to quickly buy and sell securities. An economy where the stock market is on the rise is considered to be an up-and-coming economy as the stock market is often considered to be the primary indicator of a country's economic strength and development. Exchanges also act as the clearinghouse for each transaction, meaning that they collect and deliver the shares, and guarantee payment to the seller of a security. This eliminates the risk to an individual buyer or seller that the counterparty could default on the transaction (Caster, 2014)

Kenya's capital market has come a long way since the country's independence in 1963.The capital market now comprise of; the trading debt and equity over the Nairobi Securities Exchange(NSE); debt capital markets(bonds); development financial institutions (DFI's) and pension funds. (Chepkoiwo, 2011). The NSE was incorporated under Companies act of Kenya 1991 as a company limited by guarantee and without a share capital (NSE, 2016). In Kenya, the capital market has not played its role in capital mobilization, though if properly organized it could be a source of much needed capital necessary for, economic growth

(Wagacha 2001). Additional supply of capital is urgently required to maintain the momentum of the growth in GDP.

NSE is today poised to play an important role in the Kenyan economy: It facilitates the mobilization of capital for development and provides savers in Kenya with an alternative sawing tool, it can also be used by the government and local authorities as an alternative source of funds to increasing taxes in order to finance development projects and is used as an instrument of privatization and also as an avenue of liberalization of sectors previously dominated by the government (Chepkoiwo, 2011). However, as an emerging capital market, NSE has faced challenges to its development and growth. This study therefore looked at the effect of selected factors on the development of the NSE and to makes the necessary recommendations.

1.2 Statement of the Problem

The securities market plays a vital role in economic prosperity by fostering capital formation they help in efficient allocation of credit in the economy. The benefits of well-developed markets are numerous; facilitating higher savings rate of the working population, offering of variety of securities to as many people as possible, flow of foreign direct investment into long established or recently introduced companies, they facilitate the flow of resources to the most productive investment opportunities, redistribution of wealth in the economy and improved corporate governance through increased transparency, increase the level and sophistication of financial intermediation in an economy while offering to the investing public a variety of financial products and promote economic growth through increased access to savings and risk diversification (Sejjaaka, 2011).

Despite the apparent advantages of a well-developed securities market, the growth of the securities exchange in Kenya has been relatively slow, and has especially received a poor response from private companies wishing to raise capital (Wagacha, 2001). In Kenya, like in most developing economies, the capital market has not played its role in capital mobilization, though if properly organized it could be a source of much needed capital necessary for, economic growth (Chepkoiwo, 2011).

The government of Kenya, in realizing the importance of the securities market, instituted various measures including automation, removal of capital gains tax and establishment of a regulatory body called Capital Market Authority (CMA) in the late 1980s, despite all these apparent benefits and measures instituted by the government at different times, performance indicators show that the NSE hasn't yet performed to its full potential compared to other securities markets. These include: low turnover ratio, low market capitalization to GDP ratio and low value of stock (Angko, 2013).

Most studies on the development of Nairobi Securities Exchange including Basweti (2002), Chepkoiwo (2011), Aduda, Masila&Onsongo, (2012), have often focused on the macroeconomic factors and no study has devoted much attention to market infrastructure factors. The need for a quicker development of a well-organized and functioning capital market is extremely important, and in light of this knowledge gap, a better understanding of the effects of selected factors on the development of Nairobi Securities Exchange was of vital importance.

1.3 Objective of the Study

The general objective of the study was to determine the effectof market infrastructure factors on the development of Nairobi Securities

H_O-there is no significantly effectof market infrastructure factorson the development of Nairobi Securities Exchange

2.0 Literature Review

2.1 The Nairobi Securities Exchange (NSE)

The Nairobi Securities Exchange was established in the 1920's by the British as an informal market for Europeans only. It was incorporated to a company in 1954, with Africans being allowed to join and trade in the market in 1963 and operated through the telephone with a weekly meeting at the Stanley. At the dawn of independence, stock market activity slowed down due to uncertainty about the future Kenya after independence but after three years of stability and economic growth, confidence in the market was rekindled and the exchange handled a number of highly over- subscribed public issues only affected by the oil crisis of 1972, which introduced inflationary pressures on the economy which depressed share prices and when a 35% capital gains tax was introduced in 1975 (suspended since 1985) inflicted further losses to the exchange. The bourse lost its regional character following the nationalizations, exchange controls and other inter- territorial restrictions introduced in neighbouring Tanzania and Uganda(The NSE Market Fact File, 2016).

The Nairobi Securities Exchange has played an increasingly important role in the Kenyan economy, especially in the privatization of state- owned enterprises. Public enterprises have been successfully privatized through the NSE where the government has raised billions of shillings. The first privatization exercise was the sale of 20% government stake in Kenya Commercial Bank. Kenya airways followed in 1996. To encourage FDIs, the government introduced several incentives for capital markets growth including tax free Venture Capital Funds, removal of capital gains tax on insurance companies' investments, allowance of beneficial ownership by foreigners in local stockbrokers and fund managers (Bitok et al., 2015).

The Nairobi Securities Exchange (NSE) demutualisation in 2014 marked the beginning of a period of rapid innovation in East Africa's capital markets. The NSE and the CMA took a series of steps to support long-term growth in the exchange as part of the Capital Markets Master Plan (2014-23). Among the initiatives rolled out were new products to boost liquidity and help attract more domestic retail investors, given that only 4% of the population currently participates in the local market. These included exchange-traded funds (ETFs) launched in the first quarter of 2016, derivatives market, new securities settlement platform that features functionalities such as same-day trading, settlement services for government securities, and securities lending and borrowing to facilitate short-selling and other investment strategies. The government also sought to encourage activity on the capital markets in other ways, including rolling back a capital gain tax (CGT) which was reintroduced at 5% on equities and bonds in 2015, reduced to 0.3% withholding tax(The NSE Market Fact File 2016).

2.2 Market Infrastructure factors And the Development of Nairobi Securities Exchange

There are two basic building blocks necessary for a thriving securities market: a macroeconomic and fiscal environment and a market infrastructure (Pardy, 1992).The market infrastructure should be capable of supporting efficient operation of the securities market. i.e., the securities market should operate in an efficient, fair and stable manner. Market infrastructure factors were the independent variables for this study. There are institutional infrastructure factors and legal and regulatory factors. The institutional infrastructure provides the operational basis for the market. It relates to intermediaries that provide trading, investment management and financial advisory services; market and market-related service providers for stock exchanges, over-the-counter markets, market information services, transaction clearance and settlement systems, and securities transfer, registration and custody; and providers of ancillary services such as accounting and auditing, legal advice, and financial valuation and debt rating services. They include market information, market efficiency, market openness, market transparency and operating system and operating/transaction costs (Osei, 1998).

2.2.1 Market Information and NSE Development

Kimura and Amoro, (1999) argue that the major factor contributing to poor performance of the NSE is general lack of awareness and information on the role, functions and operations of the stock exchange. For companies, the question is not so much lack of knowledge but a concern that the risks associated with additional disclosure are not adequately compensated by additional returns. Public disclosure of relevant information about securities is important for both pricing efficiency and market confidence. In emerging markets, there are many barriers to the dissemination of information and information asymmetries are profoundly found in these markets (Chepkoiwo, 2011).

In markets for publicly offered securities, investor access to information pertaining to their prospective investments is more limited than that of professional intermediaries. Investors can therefore be protected by the compulsory disclosure of financial data and other relevant information relating to the issues of securities which facilitates increased investors' confidence in the stock markets. A company that raises funds from the public must be required to disclose sufficient information to allow an educated investor to make a reasoned investment decision so that the aggregate of investors' decisions may be a good assessment of a company's worth. This requires an effective legal infrastructure to specify and enforce disclosure standards for all companies issuing securities for the public. Those companies that have securities listed for secondary trading on a market such as a stock exchange should be subjected to additional disclosure requirements imposed as listing rules (Bitok, Tenai, Bitok&Chenuos, 2015).

2.2.2 Market Efficiency and NSE Development

Chuppe and Atkin (1992) argue that information asymmetries abound in financial markets. The managers of a firm know more about that firm's market prospects and investment opportunities than do outsiders. Financial market professionals often have access to information that is not widely available. In an unregulated market, the possibility exists that unsuspecting investors will be harmed by those with access to information not available to the public at large. This is important for the economy because lack of public confidence in securities markets would cause the supply of funds to the markets to dry up, thus depriving the economy of the benefits of a functioning market. The authors further observe that these information asymmetries are the basic justification for a large number of regulations. Disclosure requirements for public companies must ensure that financial information is available for investors in a way that facilitates inter-company comparisons. It must be noted, however, that disclosure is only effective if there are good accounting standards in place, standards that allow investors to assess the financial health of enterprises (Bugalama, 2013). Also a study by Cheung and Krinsky, (1994) confirmed under-pricing of securities by investment banks in an environment of information asymmetry. In addition, banks tend to indirectly discourage the stock exchange as a means of raising capital since they play the dual role of being investment advisors as well as lenders. For the stock exchange itself, there is both inadequate marketing of itself as well as lack of a sufficient number of products to attract the investing public (Chepkoiwo, 2011)

2.23 Market Transparency and NSE Development

Transparency of trading and other procedures allows efficient price setting and confidence in the fairness of the market. The degree to which markets are transparent and competitive affect investors' ability to gain information and develop performance expectations. Though all markets exhibit varying degrees of transparency, emerging markets are likely to be less transparent than developed market. Fragmented or privately conducted trading with limited disclosure of quantity and price means that each new transaction in effect must be based on relatively expensive search costs and there is a risk of the transaction going out of line with prevailing prices. Opaque trading procedures engender suspicion of market manipulation and may reduce the rate of investment and most of the dealings done through brokers can enhance limited disclosure of some vital information which can lead to of market manipulation (Osei, 1998).

2.2.4 Market Openness and NSE Development

Markets can either be open or closed to foreign investors. Excessive barriers especially to foreign investors like the Kenyan 25% rule where investors are to allow the locals to own 25% of holding in any foreign investment in Kenya hampers the development of any securities exchange. Bruner et al (2003) studied 33 developing countries to ascertain the extend of market openness in those countries and noted that only 18 out of 33 listed as emerging markets are 100% open to foreign investment and the remaining 15 markets are either closed to foreign investment or having varying restrictions on foreign ownership. The most common restriction includes; special classes of shares for foreign owners; limits on foreign ownership; limits on ownership held by a single foreign shareholder; company imposed limits that differ from national law; and national limits on aggregate foreign ownership. Demirgug& Levine (1996) finds that the restriction placed on foreign investors on the above restrictions constrain the performance of the capital market. However, the restrictions vary from one country to the other (Chepkoiwo, 2011).

2.2.5 Transaction Processing System and Cost and NSE Development

The transaction clearance and settlement system contributes to the development of the securities market, a factor that was being addressed in Kenya with the introduction of the CDS system (Chepkoiwo, 2011). The operating-transaction costs should be within acceptable limits aimed at minimizing costs in order to maximize returns. Unreasonably high costs of transactions will affect market development since investors aim at minimizing cost to increase their returns. For companies going public through share issue and subsequently seeking listing on the exchange, the main costs are: underwriting fee, legal and accounting expenses, brokerage commissions, cost of printing and advertising prospectus and fees for the NSE. The cost of going public as percentage of capital raised decreases as more capital is raised. It is also cheaper to raise capital through private placement than through public issue (Osei, 1998).

For individuals buying and selling shares on the stock exchange, the main cost is brokerage commissions. A latent cost is the interest forgone when payment is made to the broker while the investor waits, sometimes for a couple of weeks or more, before the stock is purchased. (Osei, 1998).

2.2.6 Legal and Regulatory Infrastructure and NSE Development

The regulatory infrastructure relates not only to the government body that has the power and responsibility to supervise the market, but also includes self-regulatory organizations such as stock exchanges, accounting standards boards, and accounting and auditing professional associations and similar organizations. It also includes their rules and regulations, procedures, and facilities such as stock exchange listing and trading rules or accounting and auditing standards, plus the monitoring and enforcement of these rules (World bank, 1992).

The legal infrastructure provides the basis for the operational and regulatory framework. It provides for property rights, contractual relationships, forms of incorporation, and rights and responsibilities of participants in the market. It also specifies the powers and responsibilities of the government supervisory authority and self-regulatory organizations. Legal and broader institutional environment plays an important role in the development of the financial markets as they protect investors, clearly define property rights and support private contractual arrangements thet are crucial for adequate functioning of financial markets. Empirical evidence shows that regulations that protect creditors and minority investors are associated with deeper and more active financial markets, increased valuations, lower concentration of ownership and control, greater dividends pay-out (Torre &Schmukler, 2007).

Beck (2000), an empirical study done in Brazil observed that legal environment is the first impediment to financial system development. He found a strong relationship between the financial development and legal environment. Levine (1999) also found a strong link between legal environment and financial development. In order to facilitate capital development in the emerging market, the legal environment should be favourable. The environment should have laws and regulations which are not prohibitive in nature. In Kenya, CMA has been mandated to regulate the capital market (Chepkoiwo, 2011).

Currently, there are multiplicity of regulators and regulations in Kenya governing the capital market. They include the Central Bank of Kenya, Capital Markets Authority, Retirement Benefits Authority and Commissioner of Insurance. All these bodies enact policies that affect the development of the stock Market. The Capital Markets Authority as the regulatory agency must alter its approach from the sometimes heavy-handed type of control to a more proactive, creative and supportive role in order to assist in the creation of a more vibrant and forward looking capital market environment by seeing itself as a catalyst in development rather than as a traditional regulator of what is a very small market (Capital Markets Authority, 2016)

Rrelated (Job, 2014).

3.0 Research Methodology

3.1 Research Design

A descriptive research design was used in finding out the effects of selected factors on the development of Nairobi Securities Exchange. Descriptive research design is a statistical method that quantitatively synthesizes the empirical evidence of a specific field of research. Flick (2009) notes that descriptive research design has become widely accepted in the field of finance and economics since it is proving to be very useful in policy evaluations.The main reason for the use of a descriptive survey design is the aim to provide as much information on the entire population under study in relation to the effect of selected market infrastructure factors on the development of NSE. It was relevant for this study as raw data was used as collected from brokerage

3.2 Target Population

The target population for this study was the NSE as it is the ideal market for carrying out this study due to availability, accessibility, and reliability of the data and it plays an important role in economic development. In studying the NSE, the study population was brokerage firms licensed by the Capital Market Authority

3.3 Data Analysis

The study utilized both primary and secondary data to find out the factors that affect the development of the NSE.Secondary data was obtained for a period of 10 years, spanning between years 2006 – 2015.Multiple regression modelwas used to test the hypotheses of the combined effect of the six independent variables on the dependent variable. The hypothesis was tested on a 0.05 significance level. Studies by Yartey (2008) and Lazaridis and Trofornidis (2006) have used regression analysis while studying relationships among variables. The regression model below was used to determine the impact of each variable in the development of the NSE.

$y = \beta 0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e$

Where:

y = Nairobi Securities Exchange development

β0 = Constant Term,βi= Beta coefficientsX1= Market Information X2= Market Efficiency

X3= Market TransparencyX4= Market Openness

X5= Transaction Processing System and Operating/ Transaction Cost

X6= Legal and Regulatory Framework

e=Standard error

3.4 Results and Discussion

3.4.1 Descriptive Statistics Summary

3.4.2 Market Information

The result of the study indicated that market information affects the development of Nairobi Securities Exchange by 3.8 or 76%. 86% agreed that unsuspecting investors can be harmed by those with access to information not available to the public at large with 80%agreeing that the managers of a firm and financial market professionals know more about that firm's market prospects and investment opportunities than do outsiders as they often have access to

Table 1: Market Information Effect on Development of NSE

Market Information	PERCENTAGES		
	Mean	**Mean (%)**	**STD DEV**
Unsuspecting Investors Can be Harmed	4.3	86	0.8061
Managers Know More of Financial Market	4	80	0.9996
Financial market professionals often have access to information that is not widely available.	3.5	70	1.1206
Investor Access to information pertaining to their prospective investments is more limited than that of professional intermediaries	3.3	66	1.0879
Disclosure will facilitate increased investors' confidence in the stock markets	4.4	88	0.697
Listed companies trading in NSE are subjected to additional disclosure requirements imposed as listing rules	4.4	88	0.697
Information asymmetries are the basic justification for the large number of regulations at the NSE	3.6	72	0.9173
There are many barriers to the dissemination of information in the NSE	2.9	58	1.2585
	3.8	**76**	**0.948**

Source: Research Data 2018

3.4.3 Market Efficiency

The result of the study indicated that market efficiency affects the development of Nairobi Securities Exchange by 67.8%. According to the study, 54.7% agreed that prices of securities listed at the NSE do not reflect all available information but only some and 88.2% of the respondents agreed that public disclosure of relevant information about securities is important for pricing efficiency and market confidence. The results of the study indicate a 69.4% agreement that there are some information asymmetries in the NSE with 58.8% under-pricing of securities by investment banks in Kenya. The overall response was as shown in the figure below;

Table 2: Market Efficiency Effect on Development of NSE

Market efficiency	PERCENTAGES		
	Mean	**Mean (%)**	**STD DEV**
Prices of securities listed at the NSE reflect all available information	2.7	54.7	1.1094
Public disclosure of relevant information about securities is important for pricing efficiency and market confidence.	4.4	88.2	0.7014
There are information asymmetries in the NSE	3.5	69.4	0.9919
There is underpricing of securities by investment banks in Kenya	2.9	58.8	1.2046
	3.4	**67.8**	**1**

Source: Research Data 2018

3.4.4 Market Transparency

The result of the study indicated that market transparency affects the development of Nairobi Securities Exchange by 75.9%. According to the study, 67.6% of transactions are not made known to the public as 60.7% of trading is conducted privately outside the NSE. 84.7% of respondents agreed that emerging markets are likely to be less transparent than developed market. The degree of market transparency and competitive was said to affect by 85.9% the investors' ability to gain information and develop performance expectations since transparency in dealings enhance the market confidence by 89.4%.. The overall response was as shown in the figure below;

Table 3: Market Transparency Effect on Development of NSE

	PERCENTAGES		
Market transparency	**Mean**	**Mean (%)**	**STD DEV**
Every transaction isn't made known to the public at the NSE	3.4	67.6	1.4145
Some trading is conducted privately outside the NSE	3	60	1.1807
Emerging markets are less transparent than developed market	4.2	84.7	0.8549
Transparency in dealings enhance the market confidence	4.5	89.4	0.7876
Degree of market transparency affects investors' ability to gain information and develop performance expectations.	4.3	85.9	0.719
Transparency of trading and other procedures allows efficient price setting and confidence in the fairness of the market.	4.2	84.2	0.82
Fragmented or privately conducted trading with limited disclosure leads to relatively expensive search costs and there is a risk of the transaction going out of line with prevailing prices.	3.7	74.1	1.0879
Market intermediaries in Kenya cause market manipulation.	3	60	1.3027
Opaque trading procedures engender suspicion of market manipulation and may reduce the rate of investment.	3.9	77.1	0.8575
	3.8	**75.9**	**1**

Source: Research Data 2018

3.4.5 Market Openness

The result of the study indicated that market openness affects the development of Nairobi Securities Exchange by 59.6%. According to the study, 32.1% of NSE is not open to all investors, local and foreign and respondents agreed at 58.8% that there are restrictions on foreign ownership at the NSE. Respondents agreed that excessive barriers to foreign investors at 69.4% including the 68.1% of the Kenyan 25% rule, hamper the development of NSE. The overall response was as shown in the figure below;

Table 4: Market Openness Effect on Development of NSE

Market openness	PERCENTAGES Mean	Mean (%)	STD DEV
NSE is not open to all investors, local and foreign	1.6	32.1	1.088
There are restrictions on foreign ownership at the NSE	2.9	58.8	1.4778
There are excessive barriers to foreign investors at the NSE	3.5	69.4	1.2848
Restrictions on foreign investors constrain the performance of the capital market.	3.5	69.4	1.261
The Kenyan 25% rule affects the development of the NSE	3.4	68.1	1.2664
	3	**59.6**	**1.3**

Source: Research Data 2018

3.4.6 Transaction Processing System and Operating/Transaction Cost

The result of the study indicated that transaction processing system and operating/transaction cost affects the development of Nairobi Securities Exchange by 68.6%. The results indicated that the clearance and settlement system used at the NSE is fast and effective at 59.4%, with 41.2% of transactions being processed on time and this has led to increased turnover at the NSE. The processing system guarantee that the prices obtained by buyers and sellers are 63.5% good. 90% of investors' usually aim at minimizing cost to increase their returns and thus unreasonably high costs of transactions affect market development by 77%. It is 68.2% cheaper to raise capital through private placement than through public issue though the cost of going public as percentage of capital raised decreases as more capital is raised by 78.2%. Respondents agreed that for individuals buying and selling shares on the stock exchange, the main cost is brokerage commissions. The overall response was as shown in the figure below;

Table 5: Transaction Processing System and Operating/Transaction Effect on Development of NSE

Transaction processing system and Operating/transaction cost	PERCENTAGES Mean	Mean (%)	STD DEV
Transactions take too long to be processed at the NSE	2.9	58.8	1.1791
The CDS at the NSE is ineffective	2	40.6	0.904
The processing system affects the prices obtained by buyers and sellers	3.2	63.5	1.167
Lengthy transactions affect the turnover of the market	3.6	72.4	1.0735
Investors aim at minimizing cost to increase their returns	4.5	90	0.6629
Unreasonably high costs of transactions affect market development	3.8	77	1.2278
The cost of going public as percentage of capital raised decreases as more capital is raised.	3.9	78.2	1.1011

It is cheaper to raise capital through private placement than through public issue.	3.4	68.2	1.282
	3.4	**68.6**	**1.1**

Source: Research Data 2018

3.4.7 Legal and Regulatory Framework

The study indicated that legal and regulatory environment plays an important role in the development of the securities markets and affects the development of the NSE by 73.8%. 58.2% of respondents believe that legal and regulatory framework could be an impediment to NSE development thus favourable legal environment facilitates stock market development by 81.8% hence the law and enforcement mechanisms that protect creditors and minority investors the NSE.

The study indicated that laws and regulations at the NSE are 56.5% prohibitive in nature. Regulatory bodies enact policies that affect the development of the stock Market by 75.9% but 60% of the times use a heavy-handed type of control. 80% of study results indicate that CMA is a catalyst in development rather than a traditional regulator of NSE with 84.7% agreeing that proactive, creative and supportive regulations assist in the creation of a more vibrant and forward looking capital market environment. The overall response was as shown in the figure below;

Table 6: Legal and Regulatory Framework Effect on Development of NSE

Legal and regulatory framework	PERCENTAGES Mean	Mean (%)	STD DEV
Legal environment is an impediment to financial system development.	2.9	58.2	0.9475
A favorable legal environment facilitates stock market development	4.1	81.8	0.7535
There are law and enforcement mechanisms that protect investors at the NSE	4.4	87.6	0.6038
There are regulations that protect creditors and minority investors at the NSE	4	79.4	1.0294
Laws and regulations at the NSE are prohibitive in nature	2.8	56.5	0.9991
Regulatory bodies enact policies that affect the development of the stock Market.	3.8	75.9	0.9464
Regulatory authorities for the NSE use a heavy-handed type of control	3	60	0.9535
Proactive, creative and supportive regulations assist in the creation of a more vibrant and forward looking capital market environment.	4.2	84.7	0.9553
CMA is a catalyst in development rather than a traditional regulator of NSE	4	80	0.8876
	3.7	**73.8**	**0.9**

Source: Research Data 2018

3.4.8. Market Capitalization Ratio

The dependable variable of interest was Nairobi securities exchange development which was measured using market capitalization as a proportion of GDP. This measure equals the value of listed shares divided by GDP. The assumption behind this measure is that the overall market size is positively correlated with the ability to mobilize capital and diversify risk on an economy wide basis. Market capitalization (also known as market value) is the share price times the number of shares outstanding (including their several classes) for listed domestic companies, was the dependent variable of the study. The table below shows the market capitalization ratio for 2006 to 2015 with descriptive statistics;

Table 7: Market Capitalization Ratio

Year	Stock Market capitalization (KShsBns)	GDP (kshsBns)	Stock Market Capitalization, Percentage of GDP
2006	791.58	1,622.57	48.79%
2007	851.13	1,833.51	46.42%
2008	853.88	2,111.17	40.45%
2009	834.17	2,365.45	35.26%
2010	1,166.99	2,553.73	45.70%
2011	868.24	3,048.87	28.48%
2012	1,272.00	4,261.37	29.85%
2013	1,920.72	4,745.14	40.48%
2014	2,300.05	5,402.41	42.57%
2015	2,049.54	6,260.65	32.74%
Mean	1,290.83	3,420.49	39.07%
Standard Deviation	550.20	1546.74	6.78%

Source: Research Data 2018

The above table shows that the Nairobi securities exchange has been performing well some years and other years dismally. One of the contributing factors for its performance are the independent variables for this study which were market information, market efficiency, market transparency, market openness, transaction processing system and operating processing cost and legal and regulatory framework. From the data collected, the highest market capitalization ratio was in 2006 at 48.79% with the lowest being in 2011 at 28.48%. The mean was 39.07% indicating that the market has been having an average performance; with a low standard deviation at 6.78%, the range of performance hasn't been fluctuating a lot. The figure below shows a graphical representation of Kenya's monthly Capitalization levels for the period under study;

3.5 Correlation Analysis

The table below displays the value of the correlation coefficient and the significance value for each pair of variables used in the Paired Samples T Test procedure.

Table 9: Correlation Analysis

		Market Information	**Market Efficiency**	**Market Transparency**	**Market Openness**	**TPS and Operating / Transaction Cost**	**Legal and Regulatory Framework**
Market Information	Pearson Correlation	1	0.239**	0.0389**	0.429**	0.136**	0.528**
	Sig (2 tailed)	-	0.001	0.002	0.001	0.049	0.045
	N	34	34	34	34	34	34
Market Efficiency	Pearson Correlation	0.239**	1	0.495**	0.370**	0.815**	0.612**
	Sig (2 tailed)	0.001	-	0.001	0	0.021	0.002
	N	34	34	34	34	34	34
Market Transparency	Pearson Correlation	0.0389**	0.495**	1	0.648**	0.635**	0.095**
	Sig (2 tailed)	0.002	0.001	-	0.002	0.001	0.0341
	N	34	34	34	34	34	34
Market Openness	Pearson Correlation	0.429**	0.370**	0.648**	1	0.348**	0.536**
	Sig (2 tailed)	0.001	0	0.002	-	0.002	0.001
	N	34	34	34	34	34	34
TPS and Operating/ Transaction Cost	Pearson Correlation	0.136**	0.815**	0.635**	0.348**	1	0.476**
	Sig (2 tailed)	0.049	0.021	0.001	0.002	-	0
	N	34	34	34	34	34	34
Legal and Regulatory Framework	Pearson Correlation	0.528**	0.612**	0.095**	0.536**	0.476**	1
	Sig (2 tailed)	0.045	0.002	0.0341	0.001	0	-
	N	34	34	34	34	34	34

*** *Correlation is significant at the 0.05 level (2-tailed).***Source: Research Data 2016*

The results suggest a strong correlation between TPS and operating/ Transaction cost and market efficiency with a rho of 0.815 and a p value of 0.021. The results also suggest that the relationship between market information and legal and regulatory framework (rho = 0528, p

= 0.045) is statistically significant. Legal and regulatory framework and TPS and Operating/Transaction cost had a Rho of 0.476 and a p value of 0.000therefore denoting statistical significance. Similarly, the legal and regulatory framework and market efficiency posted a rho of 0.612 with a p value of 0.000 therefore providing a statistical significance. Market transparency and TPS operating/ transaction cost had a rho of 0.635, p=0.001 further pointing to a statistical significance. On the same note, the market efficiency and market transparency correlated at rho=0.495 and p=0.001;this therefore is statistically significant. Market information and market efficiency had a Rho of 0.239 and a p value of 0.001, market information and market transparency had a Rho of 0.0389 and a p value of 0.002.Market openness and market efficiency correlated at Rho=0.370 and p=0.000 implying statistical significance. Finally, the legal and regulatory framework market transparency were at a correlation of rho=0.095 and p= 0.0341 revealing statistical significance.

Thus generally, the above table shows that there is a very positive correlation between legal and regulatory framework, market efficiency, market transparency, TPS operating/transaction cost market openness and market information at 95% which are statistically significant at confidence level.

3.6Multiple Regression Analysis

3. 6.1 Regression Analysis

A multiple regression analysis was conducted to find out the effect of market information, market efficiency, market openness, market transparency, transaction processing system and transaction/operating cost and legal and regulatory framework on the development of NSE as a proxy for market infrastructure factors. Model summary table below shows the coefficient of determination (R^2) which explains the percentage of the variation in the development of NSE.

Table 10 Model Summary

Model	R	R square	Adjusted R square	Standard Error
1	0.8955[b]	0.8019	0.64306	0.4452
b. Dependent variable: Development of the NSE				

From the results of the table above, the regression model containing market information, market efficiency, market transparency, market openness, transaction processing system and operating/transaction cost and legal and regulatory framework as the predictor variables explains 80.19% of the variation in development of the NSE while the remainder (19.81%) can be explained by other factors not included in this model. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table above there was a strong positive relationship between the study variables as shown by 0.8955.

The table below displays ANOVA results that test the significance of the R^2 for the model:

Table 10: ANOVA

	Ds	*SS*	*MS*	*F*	*Significance F*
Regression	6	9963.12	1660.52	56.0036	0.017[a]
Residual	3	88.9507	29.6502		
Total	9	10052.1			

a. Predictors (Constant), Market information,

b. Dependent variable: Development of the NSE

The ANOVA test was used to determine the impact independent variables have on the dependent variable in a regression analysis. ANOVA provides a statistical test of whether or not the means of several groups are equal. ANOVAs are useful in comparing (testing) three or more means (groups or variables) for statistical significance.

The significance value is 0.017 is less than 0.05 thus the model is statistically significant in predicting how market information, market efficiency, market transparency, market openness, transaction processing system and operating/transaction cost and legal and regulatory framework influences development of the Nairobi Securities Exchange. An F statistic of 56.004 with a p value less than the conventional 5% indicates that the overall model was significant at 95% confidence level.

Table of coefficients below presents the unstandardized and standardized coefficients of the model, the t-statistic for each coefficient and the associated p-values. The predictor variables had significant positive relationship with development of the NSE.

Table 11: Regression coefficients results

	Unstandardized Coefficients		Standardized Coefficients		
	B	*Std Error*	*Beta*	*t Stat*	*P-value*
1 (constant)	0.252	0.013		0	0
Market information	0.382	0.1645	0.264	1.02097	0.03824
Market efficiency	0.0966	0.1448	0.0751	0.1148	0.01159
Market transparency	0.3483	0.1326	0.3129	2.0986	0.01267

Market openness	0.3684	0.1241	0.3287	0.5517	0.00619
TPS and Operating/transaction cost	0.5074	0.1949	0.4765	0.5512	0.00199
Legal and regulatory framework	0.2266	0.1187	0.1908	1.4029	0.02552

The findings confirm that there is a statistically significant influence of Market information, Market efficiency, Market transparency, Market openness, Transaction processing system and Operating/transaction cost and Legal and regulatory framework on the development of the NSE. This implies that a unit increase in the predictor variables leads to a significant increase on the development of the NSE as demonstrated in the equation below:

$Y = 0.252 + 0.382X_1 + 0.097X_2 + 0.348X_3 + 0.368X_4 + 0.507X_5 + 0.226X_6$

From the significance column of the provided table, at 5% level of significance, it was observed that Market information, Market efficiency, Market transparency, Market openness, Transaction processing system and Operating/transaction cost and Legal and regulatory framework are the main variables that explain the development of the NSE. From the above regression equation, a unit increase in market information leads to a 0.382 increase in NSE development, a unit increase in Market efficiency leads to a 0.097 increase in NSE development, a unit increase in Market transparency leads to a 0.348 increase in NSE development, a unit increase in Market openness leads to a 0.368 increase in NSE development, a unit increase in Transaction processing system and Operating/transaction cost leads to a 0.507 increase in NSE development and a unit increase in Legal and regulatory framework leads to a 0.226 increase in NSE development.

3.7. Hypothesis Testing

This null hypothesis H_{O1}: Market information does not significantly affect the development of Nairobi Securities Exchange was tested at 5% significant level and rejected since the p-value was less than 5% with t=1.02097 as shown in table 4.7.3 above. This implies that market information does significantly affect NSE development. The results are similar to Osei (1998) who analysed the factors affecting the development of an emerging capital market with a specific focus on the Ghana stock market with a focus on institutional factors. The study found that the most significant factors impinging on the development of the Ghana stock market is lack of national awareness and lack of knowledge about stock markets.Kimura and Amoro (1999) in their study on impediments to the growth of Nairobi

Stock Exchange found that there was a poor degree of correlation between economic growth and growth of the stock exchange with the major factor being general lack of awareness and information on the role, functions and operations of the stock exchange.

The second nullH_{O2}: Market efficiency does not significantly affect the development of Nairobi Securities Exchange was tested at 5% significant level and rejected sinceas indicated in table 4.7.3 above the p-value was less than 5% with t=0.1148.This implies that market efficiency does significantly affect NSE development. According to Demirguc-Kant and Levine (1996), they observed that economies with strong information and unrestricted international capital flow tend have more liquid markets. Developing markets are characterized as having a low level of liquidity, high information asymmetry and thin trading because of their weak institutional infrastructure.

The third null hypothesisH_{O3}: Market transparency does not significantly affect the development of Nairobi Securities Exchangewas tested at 5% significant level and rejected at 5% since the p-value was less than 5% with t=2.0986 as shown in table 4.7.3 above. This implies that market transparency does significantly affect the development of NSE. This result are in line with Sejjaaka (2011) in challenges to the growth of capital markets in underdeveloped economies, the case for Uganda, who concluded that there is a need to improve levels of disclosure by firms because these firms occupy an important place in the business space. As firms' disclosure improves, so will their readiness to go IPO and firms need to legitimize their business so as to increase their acceptability as investment vehicles for mobilising private savings.

This null hypothesisH_{O4}: Market openness does not significantly affect the development of Nairobi Securities Exchange was tested at 5% significant level and rejected since the p-value was less than 5% with t=0.5517 as shown in table 4.7.3 above. This implies that market openness does significantly affect development of NSE. Similarly,Bruner et al (2003) in the study on investing in emerging markets to ascertain the extend of market openness in those countries. Using regression analysis, they found that the level of openness contributes to stock market development

And in their review only 18 out of 33 listed as emerging markets are 100% open to foreign investment and the remaining 15 markets are either closed to foreign investment or having varying restrictions on foreign ownership. El-Wassal (2005) also investigated the relationship between stock market growth foreign portfolio investment in 40 emerging markets between

1980 and 2000and the results showed that economic foreign portfolio investments were one of the leading factors of the emerging stock markets growth.

This null hypothesis H_{O5}: Transaction processing system and operating/ transaction cost does not significantly affect the development of Nairobi Securities Exchangewas tested at 5% significant level and rejected at 5% since the p-value was less than 5% with t=0.5512 as indicated in table 4.7.3 above. This implies that transaction processing system and cost does significantly affect NSE development.This results are in line with Osei (1998) who found out that transactions costs are a hindrance to stock market development.

This final null hypothesisH_{O6}: Legal and regulatory framework does not significantly affect the development of Nairobi Securities Exchangewas also tested at 5% significant level and rejected at 5% since from the table 4.7.3 abovethe p-value was less than 5% with t=1.4029.This implies that the legal and regulatory framework does significantly affect NSE development. The results are in line with the study done by Pagano (1993) in financial markets and growth, which shows that regulatory and institutional factors may influence the efficient functioning of stock markets. For example, mandatory disclosure of reliable information and regulations that instil investor's confidence. Yartey and Adjasi (2007) in their study on macroeconomic and institutional determinants of stock market development in Africa found that a percentage point increase in the quality of legal and political institutions tends to increase stock market development in Africa. Yartey (2008) on examining the macroeconomic and institutional determinants of stock market development, provides evidence that institutional factors such as law and order, political risk, and bureaucracy quality are important determinants of stock market development.

3.8 Conclusion

Theoretically, a growing literature argues that securities market development boost economic growth. Greenwood and Smith (1997) show that large stock markets can decrease the cost of mobilizing savings thus facilitate investment in most productive technologies; because in principle a well-developed securities market should increase savings and efficiently allocate capital to productive investments which leads to an increase in the rate of economic growth. The NSE has experienced growth over the previous years; however, the rate of growth has been dismal.Enhancing NSE growth and performance poses greatest challenges and key factors that impinge on thedevelopment of NSE include the market infrastructure factors.

In analysing the collected data, the results revealed that there is a relationship between Nairobi Securities Exchange development and market information, market efficiency, market openness, market transparency, transaction processing system and transaction/operating cost and legal and regulatory framework. We can therefore say that Nairobi securities Exchange development is positively correlated to market information, market efficiency, market openness, market transparency, transaction processing system and transaction/operating cost and legal and regulatory framework. The results of this study suggests that the Capital Market Authority, Nairobi securities Exchange and other participants should play a more positive role in order to foster securities market development.

REFERENCES

Adam, A., &Tweneboah, G. (2009). Foreign Direct Investment and Stock Market Development: Ghana's Evidence. International Research Journal of Finance and Economics, 26, 178-185.

Adelegan, O. (2008). Can Regional Cross-Listings Accelerate Stock Market Development? Empirical Evidence from Sub-Saharan Africa. IMF Working Papers, 1-44. Retrieved from SSRN: https://ssrn.com/abstract=1316749

Aduda, J., Masila, J., &Onsongo, E. (2012). The Determinants of Stock Market Development: The Case for the Nairobi Stock Exchange. International Journal of Humanities and Social Science, 2(9).

Asea, P. (2003). Promoting Regional Financial Market Integration.Presentation at the African capital markets Development program in Johannesburg, South Africa.

Ball, R. (2001). The theory of stock market efficiency: accomplishments and limitations. The New Corporate Finance: Where Theory Meets Practice, p.20-33. New York: Irwin

Barro, J. (1989).Economic Growth in a Cross Section of Countries, Harvard University Working Paper, No. 201.

Barry, C. & Lockwood, L. (1995).New directions in research on Emerging Capital Markets, Financial Markets, Institutions and Instruments.Vol.4, Vol.5. Oxford: Blackwell Publishers.

Basweti, A. (2002). Factors limiting the development of emerging stock markets: The case of Nairobi Stock Market.

Benaković, D., &Posedel, P. (2010). Do macroeconomic factors matter for stock returns? Evidence from estimating a multifactor model on the Croatian market. Business Systems Research, 1(1-2). doi: 10.2478/v10305-012-0023-z

Bitok, S., Tenai, J., Bitok, J. and Chenuos, N. (2015). Factors influencing the development of capital markets in a developing economy.

Blommestein, J. & Spencer, M. (1993).The Role of financial Institutions in the Transition to a Market Economy.IMF Working Paper 93/75 International Monetary Fund, Washington DC.

Brealy, R. & Myers, S. (1991).Principles of Corporate Finance, 4th edition, McGraw- Hill, New York.

Bruner, R. et al (2003). Investing in Emerging Markets.Charlott Ville Virginia.The Research Foundation of AIMR.

Bugalama, J. (2013). Factors Affecting Capital Market Development Adaptation in Tanzania: A Case of Dar Es Salaam Stock Exchange (DSE) (Masters). University of Tanzania.

Bundoo, S. (2017).Stock market development and integration in SADC (Southern African Development Community). Review of Development Finance, 7(1), 64-72. doi: 10.1016/j.rdf.2017.01.005

Capital Market Authority Website: www.cma.or.ke

Chen, N., Roll, R., Ross, S.A. (1986). Economic Forces and the Stock Market. The Journal of Business, 59(3), 383-403. Central Bureau of Statistics: http://www.dzs.hr

Chepkoiwo, N. (2011). Factors affecting the development of emerging capital markets, the case of Nairobi stock Exchange (masters). University of Nairobi.

Chuppe, T. &Atkin, M. (1992).Regulation of Securities Markets: Some recent trends and their Implications for emerging Markets, Policy Research Working Papers (Economics)The World Bank, WPS 829.

Corporale, G., Howells, P. &Soliman, A. (2004). Stock Market and Economic Growth: The Causal Linkage Journal of Economic Development, Volume 29.

Dailami, M. &Atkin, M. (1990).Stock Markets in Developing countries: Key issues and Research Agenda. Pre-working Paper Series WPS 515, The World Bank Washington D.C.

Demirguc-Kunt, A. (1992). Developing Country Capital Structure and Emerging Stock Markets.World Bank Working Papers WPS 933.

Demirguc-Kunt, A. &Levine, R. (1993).Stock Market Development and Financial Intermediary Growth: A Research Agenda.Policy Research Working Papers (Finance and Private Sector Development).The World Bank- WPS 1159.

Engberg, H. (1976). The Nairobi Stock Exchange: An Organized Capital Market in a Developing country, Journal of Management Studies, vol. 8, no 1.

Ezeji, E., Chijindu, P. &Uzoamaka, S. (2015). Impact of Capital Inflows on Economic Growth of Developing Countries. The International Journal of Management Science and Business Administration, 1(7), 7-21. doi: 10.18775/ijmsba.1849-5664-5419.2014.17.1001

Fama, E. & French, K. (1996). The CAPM is wanted, dead or alive. The Journal of Finance, 51(5).

Fauziah Wan Yusoff, W. (2015).Stock Market Development of Middle East and North Africa (MENA) Region. International Journal of Business and Economics Research, 4(3), 163.doi: 10.11648/j.ijber.20150403.19

Gichangi, N. (2014). The Relationship between Capital Structure and Profitability of Listed Non-Financial Firms in Kenya. (Masters).University of Nairobi.

International Finance Corporation (IFC) (2000), Emerging Stock Markets Fact-Book, Washington D.C.

Irungu, J. (2015). Effect of Exchange Rate Fluctuations on Market Capitalization at the Nairobi Securities Exchange (Masters).University of Nairobi.

Irwin, B. & William, J. (1960). The Stock Market and Economic Efficiency. New York: Furham University Press.

Job, B. (2014). Macro-Economic Determinants of Stock Market Performance in Kenya: Case of Nairobi Securities Exchange (Masters). University of Nairobi.

Kimura, J. &Amoro, Y. (1999).Impediments to the growth of Nairobi Stock Exchange, IPPAR Discussion Paper Series.

Kumar, M. & Feldman, R. (1995).Emerging Equity Markets: Growth, Benefits, and Policy Concerns.The World Bank Research Observer.

Laeven, L. (2014). The Development of Local Capital Markets: Rationale and Challenges, International Monetary Fund.

Levine, R. &Zervos, S. (1996). Stock Market Development and Long Run Growth.Working Papers Macroeconomic Adjustment and Growth-The World Bank-WPS,484 London.

Lyon, H. (1992). Taxation, Information Asymmetries, and a Firm's Financial Choices.World Bank Papers EPS 936, Washington D.C.

Maina, C. (2013). Testing the Validity of Capital Asses Pricing Model in Nairobi Securities Exchange.University of Nairobi.

Masila, J. (2010). The Determinants of Stock Market Development: the Case for the Nairobi Stock Exchange. University of Nairobi.

Mbaru, J. (2003). Transforming African new pathways to development.East African Educational publishers. Nairobi.

Modigliani, F., & Miller, M. (1958). The Cost of Capital, Corporation Finance, and the Theory of Investment, American Economic Review, 48 (3): 261-297.

Morland, M (1995). Where have all the Emerging Markets Gone? Financial times, July 22/23, 1995.

Munga, D. (1974). The Nairobi Stock Exchange, its History, Organization and Role in Kenya Economy (masters).University of Nairobi.

Musau, R. (2002). The Impact of Financial Liberalization on Selected Financial Sector Development Indicators in Kenya (masters). University of Nairobi

Muyundo, M. &Kibua, T. (2004). Capital market policies in Kenya; Historical Trends and challenges IPAR Discussion paper 04812004, Nairobi.

Muyundo, M. (2003). A causal linkage between stock market development and economic Growth (masters). University of Nairobi.

Naceur, S., Ghazouani, S. & Mohammed M. (2005).The Determinants of Stock Market Development in the MENA Region.

Nairobi Securities Exchange website: www.nse.co.ke

Ngugi, R., Amanja, D. &Mana, I. (2009).Capital Market, Financial Deepening and Economic growth in Kenya (Review Paper).

Ochieng, E. (2014).The Relationship between Financial Market Development Indicators and Economic Growth in East African Community.

Odundo E. (2004). Overview and Evolution of Investments in Sub-Saharan Africa with Special reference to Kenya.Retirement Benefits Authority.

Okoyo, K. (2012). Assessing the Role of the Capital Markets as an Engine for Economic Growth in Kenya (Masters).University of Nairobi.

Osei, K (1998). Analysis of factors affecting the Development of an emerging capital Market: The case of the Ghana Stock Market. AERC Research Paper 76. African Economic Research Consortium, Nairobi.

Pagano, M. (1993).Financial Markets and Growth, An Overview, European Economic Review, No.37.

Pardy, R. (1992).Institutional Reform in Emerging Securities Markets - Policy Research Working Papers (Financial Policy and Systems). The Wold Bank, WPS, 907.

Perotti, E. &Oijen, P. (1999).Privatization, Political Risk and Stock Market Development in Emerging Economies.CEPR Discussion Paper 2243.

Ross, S. (1976). The arbitrage theory of capital asset pricing.Journal of Economic Theory, 13 (3).

Sejjaaka, S. (2011). Challenges to the Growth of Capital Markets in Underdeveloped Economies: The Case for Uganda, Investment Climate and Business Environment Research Fund ICBE-RF Report No 02/11

Sharma, S. &Chouhan, M. (2014). Stock Market Forecasting Techniques: A Survey, International Journal of Advances in Science and Technology (IJAST) Vol 2 Issue 3(September 2014)

Talla, J. (2013). Impact of Macroeconomic Variables on the Stock Market Prices of the Stockholm Stock Exchange (Masters).Jönköping University.

Thorsten, B. (2000). Impediments to the Development and Efficiency of Financial intermediation in Brazil.World Bank Working Paper, Washington D.C

Torre, A., &Schmukler, S. (2007). Emerging capital markets and globalization.Palo Alto [California]; Washington: University of Stanford; the World Bank.

Vittas, D. (1992).Contractual Saving and Emerging Securities Markets. Policy Research Marketing Papers (Financial Policy and Systems). The World Bank, WPS. 858.

Wagacha, M. (2001).Kenya's Capital Market: To list or not to list-A survey of Enterprise Attitudes. IPAR Discussion Paper 28.

William, A. (2013). The Determinants of Stock Market Volatilities in Ghana. Research Journal of Finance and Accounting, Vol.4, No.13, 2013

Wyman, O. (2015). Accelerating Emerging Capital Markets Development, Corporate Bond Markets. World Economic Forum, April 2015.

Yartey, C. (2008). The Determinants of stock Market development in emerging economies: Is South Africa different? IMF Working Paper No. 08/32. Retrieved from ISSN: 9781451868944/1018-5941

Yartey, C. &Adjasi, C. (2007).Macroeconomic and Institutional Determinants of Stock Market Development in Africa. Management and Economic Development in Sub-Saharan Africa: Theoretical and Applied Perspective. London: Adonis and Abbey Publishers.