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Foreign Direct Investments and Development of Stock Market Capitalization in Sub-Saharan Africa: An Empirical Investigation, 1984-2015.

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Abstract: *This paper examines the Effect of Foreign Direct Investments (FDI) on the Development of stock market capitalization in Sub-Saharan African countries from 1984 to 2015. The study selected three sample countries in Sub-Saharan Africa namely, Nigeria, South Africa and Kenya and obtained secondary data namely Market capitalization ratio (dependent variable), Foreign Direct Investment ratio (independent variable)and Gross Domestic Product from the International monetary funds, World Bank, Bureau of Statistics, Central Banks of respective study countries. The methodology adopted include the unit root tests, least square regression and panel data analysis which were tested at the 5% level of significance and the result showed that FDI had a negative but statistically significant effect on market capitalization in both short-run and long-run equilibrium periods. The study concludes that there exist a significant effect of the FDI on the development of stock market capitalization in Sub-Saharan African countries and recommends that the region's government provide an enabling environment to attract and sustain FDIspillovers as well as provide marketfriendly regulations especially investor protection to attract FDI to boast the development of stock market capitalization in the Sub-Saharan African Countries.*

Keywords: *Foreign Direct Investment (FDI); Stock Market Development; Stock market capitalization*

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I. Introduction

Stock market Performance is an important index in economic development measurement of a country; it is also an important indicator of future economic activities and strength. Foreign Direct Investment as a key driver of international economic integration serves as a source of long term finance on a nation's stock market for economic activities (Desai, Foley and Hines, 2006). According to the World Bank (2015), Foreign Direct Investment refers to an investment made to acquire lasting or long-term interests in enterprises operating outside of the economy of the investor. The investment is Direct because the investor, which could be a foreign person, company or group of entities, is seeking to control, manage or have significant influence over the foreign enterprise. The world financial body believes that Foreign Direct Investment is a major source of long term external finance and is regarded as finance beyond National Borders for Less Developed Countries (LDCs) from wealthier countries. The report further stressed that foreign direct investment and small business growth are the two critical elements in developing the private sector stock markets in Lower-income economies and reduce poverty.

This investment consists of external resources including technologies, managerial expertise, financial capital, machines, marketing expertise, material and human capital with controlling ownership by an entity based in another country. Some reasons for such investments could be to globalize production and competition. Secondly, it could also be to stimulate local development while others may include complementing indigenous efforts and to move some aspects of production to more profitable locations (Desai Foley and Hines, 2006).

Oseni and Enilolobo (2011), mentioned that financial markets, especially stock markets, have grown considerably in developed and developing countries over the last two decades as a result of rapid financial and political transformation.

According to United Nations Conference on Trade and Development (UNCTAD, 2007) in 2006, about 40 African countries introduced 57 new measures affecting FDI of which 49 encouraged inward FDI. The increase in FDI inflows largely reflected relatively high economic growth and strong capital market performance in many parts of the world (UNCTAD, 2008). Reinvested earnings accounted for about 30% of total FDI inflows as a result of increased profits of foreign affiliates, notably in developing countries. In Sub-

Sahara Africa, FDI inflows increased from $18Billion in 2004 to $36Billion in 2006. This was due to increased interest in natural resources, improved prospects for corporate profits and a more favourable business climate.

Nwosa (2015), and Dailami and Aktin (1990), all observed that the stock market emerged as a result of the failure of the banking sector in providing long term finance for real sector development. In spite of the potential of the stock market in attracting capital inflows, the underdeveloped nature of the Sub-saharan African region stock markets in terms of opportunities for portfolio diversification and weak regulatory infrastructures have acted as strong militating factors to the inflows of foreign capital into the region's economies (Ndikumana, 2003; Levine and Zervos, 1998).

Despite these challenges, the Sub-saharan African stock markets have experienced notable and unprecedented growth over the years. The annual market capitalization of the Nigerian stock exchange for instance, grew from below ₦6 billion in 1984 to ₦1,922.18 billion ($15,865.94m) in 2004, representing 319.36% growth and dropped by 45.65% in 2008 due to the global financial crisis before inching up by 114.78% in 2013 and later dropped by 22.59% in 2015 to close at ₦9,816.37 billion ($49,973.88m). Similarly, for South Africa, the annual market capitalization grew from $53.388 billion in 1984 by 722.84% by close of 2004 and a further growth of 9.03% and 95.24% in 2008 and 2013 respectively before closing at $735.95 billion in 2015 representing a negative growth of 21.95%. Likewise for the Kenyan stock market, the annual market capitalization grew from below $400m in 1984 by 872.74% in 2004 and by a further 180.56% and 103.88% in 2008 and 2013 respectively, before closing at $18.2044Billion in 2015 representing a decline of 18.21%. It is observed that comparatively between 1984 and 2015; all the markets have witnessed remarkable growths on this indicator from above analysis. This phenomenal increases observed in the Sub-Saharan African stock markets have raised serious concerns on the contributions of the capital inflows (FDI) on stock markets development in the region, given the gross inadequate domestic savings that have hindered economic growth in the Sub-Saharan African economy. Hence, understanding the role of the stock market in attracting foreign capital is a topic that demands cautious enquiry.

The review of literatures revealed that little attention has been paid on the Effect of Foreign Direct Investments on the development of stock market capitalization and there exist very limited comparative work on subject within the Sub-Saharan African hemisphere. The very few studies in this regard include Adam and Tweneboah (2008) on Ghana, Al Nasser and Soydemir (2010) on Latin American countries, and Otchere, Soumare and Yourougou (2011) on Africa. Within the Nigerian economy, plethoras of studies have only focused on the relationship between stock market development and economic growth(Akinlo 2004; Mojekwu and Ogege, 2012; Ali and Abdullahi, 2015). Despite the quantum of studies, little attention has been paid to the effect of foreign direct investments on the individual stock market development components such as market capitalization. This study considered the development of stock market capitalization and foreign direct investment. To the researcher's best knowledge, existing studies have not examined the effectof foreign direct investment on stock market capitalization, on a Sub-Saharan African basis. It is against the above background that this study seeks to examine the effect of foreign direct investment on the development of stock market capitalization in Sub-saharan Africa for the period 1984 to 2015.

The objective of this study is to examine the effect of foreign direct investments on the development of stock market capitalization in the Sub-Saharan African Countries using three randomly selected developed stock markets in the region (Patton, 2002), namely – Nigeria, South Africa and Kenya.

This paper is divided into five sections namely – Introduction, Review of Related Literature, Data and Methodology, Data Presentation and Analysis and Conclusion/Recommendations.

II. Review of Related Literature

2.1 Conceptual Framework

2.1.1. Foreign Direct Investments

Foreign Direct Investment (FDI) is becoming an increasingly significant catalyst for output and trade in developing countries of the world and its associated stock markets, in part due to a major expansion in the scope of global value chain (GVC) (World Bank, 2014). The World Bank report further stressed that FDI delivers many important contributions to economic development in terms of investment, employment and foreign exchange, but its spillover potential – the productivity gains resulting from the diffusion of knowledge and technology from foreign investors to local firms and workers-that is perhaps its most valuable input to long-run growth and development.

According to the World Bank (2015), Foreign Direct Investment refers to an investment made to acquire lasting or long-term interests in enterprises operating outside of the economy of the investor. The investment is Direct because the investor, which could be a foreign person, company or group of entities, is seeking to control, manage or have significant influence over the foreign enterprise. The world financial body believes that Foreign Direct Investment is a major source of long term external finance and is regarded as finance beyond National Borders for Less Developed Countries (LDCs) from wealthier countries.

The understanding of the mediating factors that shape the extent and nature of foreign direct investment spillovers, specifically the spillover potentials of foreign investors and the absorptive capacity of local firms and workers assists will largely assist the host country's government in making policies that will aid the growth of FDI stock in its economy. The avenues through which FDI spillovers can be generated include labour turnover, supply chains, and changing market forces, and are influenced by characteristics of foreign and domestic firms, as well as host countries and the institutional framework (World Bank, 2014). Factors at the foreign investor level include degree and structure of foreign ownership, FDI motive, global production and sourcing strategies, technology intensity, FDI home country, entry mode and length of presence in the country. The domestic level factors that affect local firms and the stock market absorptive capacity include the technology and productivity gap, research and development (R and D), human capital, firm size and scale, firm location, exporting, sector dynamics, competition and type of ownership.

2.1.2 **Types of Foreign Direct Investments**

Essentially Foreign Direct Investments could comprise of any or all of the following types, namely:

Horizontal Foreign Direct Investment: arises when a firm duplicates its home country-based activities at the same value chain stage in a host country through FDI.

Platform Foreign Direct Investment: Foreign direct investment from a source country into a destination country for the purpose of exporting to a third country.

Vertical Foreign Direct Investment: takes place when a firm through FDI moves upstream or downstream in different value chains i.e., when firms perform value-adding activities stage by stage in a vertical fashion in a host country.

2.1.**3** **Significance of Foreign Direct Investments**

According to International Monetary Fund (1999), the significance of Foreign Direct investments include:

i) It is an important source of private external finance for developing countries. It is different from other major types of external private capital flows in that it is motivated largely by the investors' long-term prospects for making profits in production activities that they directly control. Foreign bank lending and portfolio investment, in contrast, are not invested in activities controlled by banks or portfolio investors, which are often motivated by short-term profit considerations that can be influenced by a variety of factors (interest rates, for example) and are prone to herd behavior.
ii) It is also a means of transferring production technology, skills, innovative capacity, and organizational and managerial practices between locations, as well as of accessing international marketing networks.
iii) It brings about improved economic growth due to the influx of capital and increased tax revenues for the host country.
iv) Private Foreign Direct Investments are risk free to the host country and contributes to foreign exchange earnings, employment creation and increases in incomes, especially of skilled and semi-skilled workers in its various industries.
v) Foreign Direct Investments will help improve the quality of products and processes in a particular sector, increased attempts to better human resources.

2.1.4 Stock Market Development

Stock market is a market where buyers and sellers engage in trade of financial securities like bonds, stocks etc and undertaken by participants such as individuals and institutions (World Bank, 2007). The market channels surplus funds from savers to institutions (deficit areas) which then invest them into productive use. This market provides long term finance for real sector developments (Desai, Foley and Hines, 2006). The primary function of stock markets is to serve as a mechanism for transforming savings into financing for the real sector. According to El-Wassal (2013), he noted that from a theoretical perspective, stock markets can accelerate economic growth by mobilizing and boosting domestic savings and improving the quantity and quality of investment. Better savings mobilization may increase the rate of saving and if stock markets allocate savings to investment projects yielding higher returns, the increasing rate of return to savers will make savings more attractive. Consequently, more savings will be channeled into the corporate sector. Efficient stock markets make corporations compete on an equal basis for funds and help make investment more efficient.

2.1.5 **Stock Market Development Measurement Variables**

Stock market development may be captured using the following indicators: i) stock market size; ii) stock market liquidity; iii) stock market performance/volatility; iv) stock market concentration; and v) stock

market linkage to real sector performance (World Bank, 2015; El-Wassal, 2013; Levine and Zervos, 1998). The adoption of a variety of indicators could provide a more accurate depiction of stock market development. This study captures mainly the development of stock market capitalization variable.

i) Stock Market Size

There are two main indicators of stock market size: market capitalization and the number of listed companies.

a) Market Capitalization Ratio – This measures the value of listed shares divided by Gross Domestic Product (GDP). The assumption behind this variable is that capital market size is positively correlated with the ability to mobilize Capital (FDI, savings etc) and diversify risk on an economy-wide basis. Levine and Zervos (1998), found a positive and significant relationship between stock market development and long-run growth.

ii) Stock Market Concentration

Market concentration may be measured by looking at the share of market capitalization accounted for by the large companies in the market. These large companies are seen by some analysts as being the leading three to five companies in the market (Maunder, Myers, Wall and Miller, 1991). Another indicator in use in measuring the degree of stock market concentration is the share of market capitalization accounted for by the ten largest stocks (e.g. International Finance Corporation, SandP). Concentration adversely affects market development as it hampers market breadth by the concentration of capitalization within a handful of large companies, limiting the range of attractive investment opportunities and thus adversely affecting liquidity in the stock market in question.

iii) Stock Markets and Economic Activity

According to El-Wassal (2013), The relationship between stock prices and real economic activity is circular. Stock prices depend on a company's performance and its growth prospects so that to the degree that a company's performance improves and the rate of return increases, stock prices rise in turn while on the other hand, stock prices should reflect the present discounted value of expected future dividends or expected future growth. From this perspective, stock prices serve as a leading indicator of future changes in real economic activity. Specifically, there are three main channels through which stock prices can affect real economic activity, namely : i) the wealth effect: under the life cycle/permanent income, higher stock prices and increased wealth in stocks lead investors to increase their consumption. This increase in consumption will be more significant in countries where the stock ownership base is large; ii) cost of capital: with stock prices increasing, the cost of new capital relative to existing capital decreases, more companies go public and raise funds for investment through public offerings. In addition, a good performance on the stock market might attract foreign capital, which would allow interest rates to go down (ceteris paribus); and iii) the confidence effect/expectation effect: a highly performing stock market might improve overall expectations, which might induce economic growth through more investment as part of a positive feedback effect. Moreover, stock prices signal faster growth of companies and as a result a possible growth of future real individuals' income might also induce more consumption (Morck, Shleifer and Vishny, 1990).

iv). Stock Market Volatility

Stock prices are supposed to serve as signals for resource allocation. Yet, excessive volatility which does not reflect economic fundamentals would distort the "signalling" function of stock markets. Although it is theoretically difficult to identify a clear criterion for defining the degree of "excessiveness", many analysts argue that less volatility reflects greater stock market development. However, a certain degree of stock market volatility is unavoidable, even desirable, as stock price movements indicate changing values across economic activities so resources can be better allocated. There are significant implications surrounding stock market volatility, given that it affects incentives to save and to invest. Theoretically, all other things being equal, the more volatile the stock market, the fewer savers will save and hence the less investment there will be. Excessive stock market volatility would lead investors to demand a higher risk premium, increasing the cost of capital which in turn would impede investment and hamper economic growth. (Zuliu, 1995; Levine and Zervos, 1996).

2.1.6.1**The Nigeria Stock Exchange Market**

The **Nigerian Stock Exchange** (**NSE**) was established in 1960 as the Lagos Stock Exchange. As of December 31, 2013, it has about 200 listed companies with a total market capitalization of about N12.88 trillion ($80.8 billion). All listings are included in the Nigerian Stock Exchange All Shares index(World Bank, 2014).

History: The Nigerian Stock Exchange was founded in 1960 as the Lagos Stock Exchange, on September 15, 1960, the stock exchange council was inaugurated. Operations began officially on August 25, 1961 with 19 securities listed for trading but informal operations had commenced earlier in June, 1961. Operations were initially conducted inside the Central Bank building with the exchange having four firms as market dealers: Inlaks, John Holt, C.T. Bowring and ICON (Investment Company of Nigeria) The volume for August, 1961, was about 80,500 pounds and it rose to about 250,000 pounds in September of the same year with the bulk of

the investments in government securities. In December 1977 it became known as The Nigerian Stock Exchange, with branches established in some of the major commercial cities of the country.
In order to encourage foreign investment into Nigeria, the government has abolished legislation preventing the flow of foreign capital into the country. This has allowed foreign brokers to enlist as dealers on the Nigerian Stock Exchange, and investors of any nationality are free to invest. Nigerian companies are also allowed multiple and cross border listings on foreign markets.

CHARACTERISTICS OF THE NIGERIAN STOCK MARKET

Stock market development can be categorized using three main characteristics: traditional, institutional and asset pricing (Demirgüç-Kunt and Levine 1996). Traditional characteristics are concerned with basic growth measures of stock market. These measures include number of listed companies and market capitalization. The

Re is also the Institutional characteristics measures. These Institutional characteristics measures are the regulatory and legal role that may influence functioning of the market, information disclosure and transparency requirements as well as market barriers and trading costs. Lastly, the Asset Pricing characteristics measures focus on the efficiency of the market especially in relation to the pricing of risk.

2.1.6.2 The South African Stock Exchange Market

JSE Limited (previously the JSE Securities Exchange and the Johannesburg Stock Exchange) is the largest stock exchange in Africa. It is situated at the corner of Maude Street and Gwen Lane in Sandton, Johannesburg, South Africa. In 2003 the JSE had an estimated 472 listed companies and a market capitalisation of US$182.6 billion (€158 billion), as well as an average monthly traded value of US$6.399 billion (€5.5 billion). As of 31 December 2013, the market capitalization of the JSE was at US$1,007 billion (World Bank, 2014).

History: The discovery of gold on the Witwatersrand in 1886 led to many mining and financial companies opening and a need soon arose for a stock exchange. The Johannesburg Exchange and Chambers Company was established by a London businessman, Benjamin Minors Woollan and housed at the corner of Commissioner and Simmonds Streets. Out of this the JSE was born on 8 November 1887. By 1890 the trading hall became too small and had to be rebuilt but this too was outgrown. Trading then moved into the street. The Mining Commissioner closed off Simmonds Street between Market Square and Commissioner Street by means of chains. In 1903, a new building was built for the JSE on Hollard Street. It was a storey building that took up an entire whole city block bounded by Fox and Main, Hollard and Sauer Streets. After World War II, it became apparent that this building was again inadequate and in 1947 the decision was made to rebuild the stock exchange. It took 11 years before construction began and in February 1961 the second exchange at Hollard Street was officially opened. By 1963, the JSE became a member of the Federation International Bourses de Valeurs (FIBV).

In 1978, the JSE took up residence at 17 Diagonal Street near Kerk Street, Johannesburg. 1993 saw the JSE become an active member of the African Stock Exchanges Association. After 108 years, the open outcry system of trading was changed to an electronic system on 7 June 1996. In September 2000, the Johannesburg Securities Exchange moved to its present location in Sandton, Gauteng and changed its official name to the JSE Securities Exchange. In 2001 an agreement was struck with the London Stock Exchange enabling cross-dealing between the two bourses and replacing the JSE's trading system with that of the LSE. In 2009 the JSE acquired the Bond Exchange of South Africa for R240 million and rebranded it the JSE debt market adding South African government and corporate bonds as well as interest rate derivatives to its product set. On 18 June 2012, the JSE became a founding member of the United Nations Sustainable Stock Exchanges initiative on the eve of the United Nations Conference on Sustainable Development (Rio+20). On 14 April 2014, the JSE re-branded to demonstrates the bourse's identity as a modern African marketplace that connects investors to growth opportunities not only in South Africa but globally.

2.1.6.3 The Nairobi Stock Exchange market

The Nairobi Securities Exchange (NSE) was constituted as Nairobi Stock Exchange in 1954 as a voluntary association of stockbrokers in the European community registered under the Societies Act.(World Bank, 2014)

History: In Kenya, dealing in shares and stocks started in the 1920s when the country was still a British colony. A stock exchange was first floated in 1922 at the Exchange Bar in the Stanley Hotel in Nairobi. However, the market was not formal as there did not exist any rules and regulations to govern stock broking activities. Trading took place on a ‘gentleman's agreement.’ Standard commissions were charged with clients being obligated to honour their contractual commitments of making good delivery and settling relevant costs. At that time, stock broking was a sideline business conducted by accountants, auctioneers, estate agents and

lawyers who met to exchange prices over a cup of coffee. Because these firms were engaged in other areas of specialization, the need for association did not arise.

In September 2011 the Nairobi Securities Exchange converted from a company limited by guarantee to a company limited by shares and adopted a new Memorandum and Articles of Association reflecting the change. In October 2011, the Broker Back Office commenced operations. The system has the capability to facilitate internet trading which improved the integrity of the Exchange trading systems and facilitates greater access to the securities market. In November 2011 the FTSE NSE Kenya 15 and FTSE NSE Kenya 25 Indices were launched. The launch of the indices was the result of an extensive market consultation process with local asset owners and fund managers and reflects the growing interest in new domestic investment and diversification opportunities in the East African region. As of March 2012, the Nairobi Securities Exchange became a member of the Financial Information Services Division (FISD) of the Software and Information Industry Association (SIIA). In March 2012 the delayed index values of the FTSE NSE Kenya 15 Index and the FTSE NSE Kenya 25 Index were made available on the NSE website www.nse.co.ke. The new initiative gives investors the opportunity to access current information and provides a reliable indication of the Kenyan equity market's performance during trading hours. In May 2013, the Nairobi Securities Exchange moved to the Exchange, 55 Westlands Road, Westlands, Nairobi.

2.2.0 Theoretical Framework

This research work is anchored on two basic Theories, namely:

- Theory of Foreign Direct Investments
- Theory of Capital Market Growth

2.2.1 Theory of Foreign Direct Investment

Numerous theories have been developed in FDI literature. These theories have been classified as microeconomic theories and macroeconomic theories of FDI. Microeconomic theories focus on the characteristics of a firm that influence its decision making processes. These include market imperfections, market power and investment location theories.Macroeconomic theories of FDI seek to investigate on a country's characteristics that explain FDI inflows within and across countries. Examples include internalization and product cycle theories.FDI literature has also reviewed theories that focus on FDI motives.

This section deals with the microeconomic theories of FDI: The Dunning's eclectic theory.

2.2.2 The Eclectic Theory

This theory was postulated by Dunning (1973) and seeks to offer a general framework for determining patterns of both foreign owned production undertaken by a country's own enterprises and that of domestic production owned by foreign enterprises. According to Dunning (1973), there are two types of investments that a firm can chose to undertake. That is, Foreign Portfolio Investment (FPI) and Foreign Direct Investment (FDI). FPI is defined as the passive holdings of securities and other financial assets, which do not entail active management or control of securities issuer. FPI is positively influenced by high rates of return and reduction of risk through geographical diversification. The return of FPI is normally in the form of interest payments or non-voting dividends. FDI is defined as the acquisition of foreign assets for the purpose of control (Dunning, 1973).

The eclectic theory is launched in three pillars of Ownership, Location and Internalisation (O+L+I). The three pillars are different questions that foreign investors seek to answer. The O pillar comprises of the ownership advantages that addresses the question why the foreign firms need to go abroad. According to Dunning (1985), this question hypothesizes that foreign firms have one or more firm specific advantages which allows them to overcome operating costs in a foreign country. The ownership advantages include core competency, brand name and economies of scale amongst others.

The L pillar addresses the question of location. According to Dunning (1985), the decision of the firm to move offshore is based upon the firm specific advantage in conjunction with factors in a foreign country. Factors such as land and labour are important in determining the location of a Multinational Enterprise (MNE) in order for it to make profits. Dunning (1985) further asserts that the choice of investment location depends on several complex calculations that include economic, social and political factors to determine whether investing in that country is profitable or not.

The I pillar represents the internalisation advantages on how to go abroad. The MNE have several options to choose from in their entry mode in a foreign country. Choices range from the arm's length transactions (market) to the hierarchy (wholly owned subsidiary). The MNE can choose internalisation if the market does exist or functions poorly, that is transaction costs of the external route are high. Under the firm specific advantage, an MNE operating a plant in a foreign country can be faced with a number of additional costs in relation to their local counterparts (local competitor). These costs according to Dunning (1985)

comprises of; Cultural, legal, institutional and language differences; Lack of knowledge about local market conditions; and increased expense of communicating and operating at a distance.

The eclectic theory therefore points out that for a foreign firm to be competitive in a foreign country, it must have some kind of unique advantages that can help them overcome the cost associated with operating in the new country. These advantages are called ownership or firm specific advantages (FSAs) or core competencies and they help the foreign firm in generating high revenues for the same cost, or lower costs for the same revenues compared to domestic firms. Dunning (1997) identified three main types of ownership advantages for multinational enterprises. These include; Knowledge/technology defined to include all forms of innovative ideas.; Economies of large size include economies of scale, scope, learning and broader access to financial capital and diversification of assets and risks.; and Monopolistic advantages occur in the form of privileged access to input and output markets through patent rights and ownership of scarce natural resources.

2.2.3 Capital Market Theory

In financial economics, the efficient-market hypothesis (EMH) states that asset prices fully reflect all available information. A direct implication is that it is impossible to "beat the market" consistently on a risk-adjusted basis since market prices should only react to new information or changes in discount rates (the latter may be predictable or unpredictable). The EMH was developed by Professor Eugene Fama who argued that stocks always trade at their fair value, making it impossible for investors to either purchase undervalued stocks or sell stocks for inflated prices. As such, it should be impossible to outperform the overall market through expert stock selection or market timing, and that the only way an investor can possibly obtain higher returns is by chance or by purchasing riskier investments. Fama and Kenneth (2012) showed that the distribution of abnormal returns of US mutual funds is very similar to what would be expected if no fund managers had any skill—a necessary condition for the EMH to hold.

There are three variants of the hypothesis: "weak", "semi-strong", and "strong" form. The weak form of the EMH claims that prices on traded assets (e.g. Stocks, bonds, or property) already reflect all past publicly available information. The semi-strong form of the EMH claims both that prices reflect all publicly available information and that prices instantly change to reflect new public information. The strong form of the EMH additionally claims that prices instantly reflect even hidden "insider" information. Critics have blamed the belief in rational markets for much of the late-2000s financial crisis. In response, proponents of the hypothesis have stated that market efficiency does not mean having no uncertainty about the future, that market efficiency is a simplification of the world which may not always hold true, and that the market is practically efficient for investment purposes for most individuals.

The efficient-market hypothesis emerged as a prominent theory in the mid-1960s. Paul Samuelson had begun to circulate Bachelier's work among economists. In 1964 Bachelier's dissertation along with the empirical studies mentioned above were published in an anthology edited by Paul Cootner. Fama (1965), published his dissertation arguing for the random walk hypothesis. Also, Samuelson published a proof showing that if the market is efficient, prices will show random-walk behavior. This is often cited in support of the efficient-market theory, by the method of affirming the consequent, however in that same paper, Samuelson warns against such backward reasoning, saying "from a non-empirical base of axioms you never get empirical results." In 1970, Fama published a review of both the theory and the evidence for the hypothesis.

2.3.0 Empirical Reviews

Empirical literature on the effect of foreign direct investment on stock market capitalization is limited, especially in the Sub-Sahara Africa. However, vast literature has been done using various macroeconomic variables to x-ray economic growth and also outside Sub-Sahara Africa.

A common indicator for assessing stock market is the Market Capitalization (market value of listed shares to Gross Domestic Product, MC/GDP). The indicator has been widely used in the literature as a stable measure of stock market development for two reasons; namely – It is a measure of stock market size, which is positively correlated with the ability to mobilize capital and diversify risks; Secondly, it is presumed to include company's past retained profits and future growth prospects, so that a higher ratio to GDP can signify growth prospects as well as stock market development (Levine and Zervos, 1998; Bekaert et al, 2001; Rajah and Zinghales, 2003).

Singh and Weisse (1998) examined the relationship between stock market development, capital flows and long term economic growth in emerging economies. The study concluded that stock market development and portfolio capital inflows in the era of financial liberalization are unlikely to assist developing and emerging economies in achieving speedier industrialization and faster long term economic growth. The study recommended that developing and emerging market economies should promote bank based systems, influence the scale and composition of capital inflows and prevent a market for corporate control from emerging.

In India, Parthapratim (2006) studied the relationship between Foreign Portfolio investment and Market capitalization between 1982 and 2004 using ordinary least square method of statistical analysis. The study discovered a positive but insignificant relationship between the variables

Kim and Yang (2008) investigated the impacts of capital inflows on asset prices by employing a panel VAR model. The study observed that capital inflows contributed to asset price appreciation while shocks to capital inflow only explained a relatively small part of asset price fluctuations.

Kaleem and Shahbaz (2009) examined the impact offoreign direct investment on stock market capitalization in Pakistan for the period 1971 to 2006. Employing an Error Correction Modelling (ECM) technique and an Autoregressive distributed lag (ARDL) bound testing approach; the study observed a positive and significant impact of foreign direct investment on stock market capitalization both in the long and short run.

Olowe, Mathew and Fasina (2011), in their study of the efficiency of the Nigeria stock exchange between 1979 and 2008 using multiple regression technique in considering the relationship between economic growth and selected capital market variables. They observed a positive significant relationship between economic growth (GDP) and market capitalization and concluded that the variable was vital to Nigeria's economic growth.

Oke (2012) examined the relationship between foreign direct investment and the Nigeria stock market capitalization for the period 1981 to 2010. Employing co-integration and error correction modelling techniques, the study observed a positive relationship between foreign direct investment and stock market capitalization in short run while in the long run the study failed to establish any relationship between foreign direct investment and stock market development in Nigeria.

Bernard and Austin (2012), studied the role of the Nigerian stock market on economic growth from 1994 to 2008. The researchers used the time series analysis adopting the ordinary least square techniques. In the study, the rate of market capitalization was used as a proxy for the stock market size. The results indicate that the market capitalization ratio is weak and negatively correlate with economic growth.

Aigbovo and Izekor (2015) investigated the nexus between stock market development and economic growth in Nigeria from 1980 to 2011 using co-integration, error correction mechanism and granger causality tests techniques. The variables employed include GDP, market capitalization. Market turnover ratio, Total value of stock traded and All Share Index. The investigation revealed a positive and significant relationship between economic growth and market capitalization in both short and long run periods.

Adaramola and Obisesan (2015) studied the impact of FDI on Nigerian capital market from 1970 to 2010 using the Ordinary least square regression method and the Co-integration tests. The study employed market capitalization as the dependent variable and FDI and GDP as the independent variables and the result showed a positive and significant relationship in the short run between the variables.

III. Data and Methodology

The study adopts the ex post facto research method which is a very common and ideal method in conducting research in business and social sciences. It is mostly used where variables are drawn from already concluded events and there is no possibility of data manipulation.

3.1 **Sources and Nature of Data**

The data for this work are secondary data drawn from the World Bank statistical data bank,International Monetary Fund (IMF), the data base of the National Bureau of Statistics of the various study country, the statistical bulletin of the Central Bank of Nigeria, statistical bulletin of the Central Bank of South Africa and the Central Bank of Kenya for the range of years under study.

3.2 **Descriptions of Variables, Sample Size and Areas of Study**

This study focuses on selected economies in the Sub-saharan Africa namely: Nigeria, South Africa and Kenya; our choice of three (3) countries sample is based on the submission of Patton (2002) that purposeful sampling may be selected for information-rich cases and need for most effective use of limited resources by the researcher(s); thus, this research work randomly chose the countries of study based on their large Gross Domestic Product, size and extent of stock market capitalization in Sub-Saharan Africa.

The study employed as its dependent variables: the stock market capitalization of all listed companies in the Nigeria Stock Market, Johannesburg Stock Market and the Nairobi Stock Market while the independent variable was foreign direct investment and gross domestic product presence was to moderate our output. The sample period covered by the study was from 1984 to 2015 representing a 32 year period covering the aspects dealing with our data for statistical analyses.

3.3 Model Specification and Description of Variables

This research work adopts the model of Adam and Tweneboah (2008), Karim (2009), Roza and Shahla (2014), Suleiman and Mohammed (2014), Adaramola and Obisesan (2015), Desai, Foley and Hines (2006), Issourma and Tchana (2015) and Nwosa (2015) with slight modifications (for example; removal of non-variable of interests such as Inflation rate, Treasury bills and Exchange rates etc and inclusion of stock market development variables only). The researchers expressed stock market development indicators as a function of FDI with GDP acting as a moderating variable (to help moderate the output from this study in line with parameter ratios used).

MCAP = f(FDIR, GDP) . . . . . ….……3.1

This model was transformed to log-linear econometric format to obtain the coefficient of the elasticity of the variables, while reducing the effect of any outlinear variable. In the log-linear regression, the coefficients are easy to interpret as the problems of different units have been solved and the interpretation becomes easy in elasticity terms. Findings with log linear modeling specification are sensitive to functional form (Kalim, 2009) while Layson (1984) argued that log linear is superior to linear form and gives more favorable results. Thus, above equation becomes:

$\log MCRt = \alpha_0 + \alpha_1 \log FDIRt + \alpha_2 \log GDPt + U_t$ ……3.2

$\log MCR_{it} = \alpha_0 + \beta_1 \log FDIRit + \beta_2 \log GDPit + U_i + V_{it}$ …….....3.3 (Fixed effect model)

The equation 3.3 shows the fixed effect panel model used for the panel data analysis.

Apiriori Expectation for this models should be;
MCR >0< FDI with a positive sign
Where MCR = Market capitalization ratio to Gross Domestic Product
FDIR = Foreign Direct Investment ratio to Gross Domestic Product
GDP = Gross Domestic Product growth rate

IV. Data Presentation and Analysis

Table 1. Shows NIGERIA (NGN), SOUTH-AFRICA (SA) and KENYA (KEN) Selected data between1984 – 2015

	NGN			SA			KEN		
Year	**MCR (%)**	**GDP (%)**	**FDIR (%)**	**MCR (%)**	**GDP (%)**	**FDIR (%)**	**MCR (%)**	**GDP (%)**	**FDIR (%)**
1984	**8.73**	**-4.6**	**1.64**	**62.68**	**-1.80**	**0**	**0.65**	**2.50**	**0.11**
1985	**9.29**	**5.4**	**1.69**	**82.66**	**0.60**	**0.02**	**0.69**	**-3.50**	**0.02**
1986	**10.83**	**-11.3**	**2.03**	**129.12**	**3.50**	**2.88**	**0.72**	**-2.20**	**0.01**
1987	**12.58**	**-13.3**	**2.52**	**133.42**	**2.30**	**4.99**	**0.76**	**-0.10**	**0.12**
1988	**12.48**	**4.5**	**1.23**	**110.08**	**2.60**	**4.09**	**0.79**	**2.00**	**0.17**
1989	**14.37**	**3.4**	**6.88**	**116.44**	**1.10**	**5.58**	**0.81**	**0.20**	**0.23**
1990	**17.60**	**9.6**	**1.98**	**122.19**	**1.10**	**-0.07**	**5.28**	**-2.60**	**0.67**
1991	**23.89**	**-0.7**	**4.51**	**158.63**	**-1.60**	**0.21**	**5.56**	**-3.40**	**0.23**
1992	**33.36**	**0.4**	**4.96**	**125.69**	**-3.90**	**2.51**	**7.76**	**-4.60**	**0.08**
1993	**46.89**	**2.0**	**4.71**	**161.64**	**-3.00**	**8.43**	**18.43**	**-1.00**	**2.53**
1994	**64.46**	**0.8**	**6.86**	**185.70**	**-0.40**	**0.27**	**42.62**	**0.80**	**0.10**
1995	**165.30**	**-0.5**	**3.09**	**178.43**	**1.30**	**0.81**	**22.30**	**1.00**	**0.47**
1996	**266.87**	**4.7**	**4.45**	**163.66**	**1.10**	**0.55**	**14.94**	**2.40**	**0.90**
1997	**264.49**	**2.5**	**4.81**	**150.76**	**-2.50**	**2.50**	**13.82**	**0.90**	**0.47**
1998	**233.11**	**2.3**	**2.93**	**122.33**	**0.00**	**0.40**	**14.82**	**-1.00**	**0.19**
1999	**258.62**	**0.0**	**2.17**	**190.10**	**0.80**	**1.24**	**10.93**	**0.90**	**0.40**
2000	**170.01**	**4.8**	**2.58**	**149.80**	**-2.40**	**0.84**	**9.88**	**2.60**	**0.87**
2001	**92.80**	**4.2**	**2.01**	**121.36**	**1.20**	**4.15**	**8.05**	**1.20**	**0.04**
2002	**33.44**	**4.0**	**2.77**	**157.60**	**-2.20**	**0.65**	**10.89**	**3.60**	**0.21**
2003	**17.01**	**8.9**	**2.28**	**148.78**	**0.20**	**0.30**	**28.06**	**1.70**	**0.55**
2004	**18.06**	**5.9**	**1.67**	**193.58**	**1.80**	**0.26**	**24.18**	**3.00**	**0.29**
2005	**19.82**	**5.8**	**3.43**	**213.10**	**2.80**	**2.18**	**34.07**	**3.90**	**0.11**
2006	**22.57**	**5.4**	**2.92**	**261.83**	**3.00**	**0.22**	**44.06**	**4.20**	**0.20**
2007	**51.00**	**6.1**	**2.90**	**276.60**	**4.00**	**2.22**	**41.76**	**3.90**	**2.28**
2008	**23.10**	**5.1**	**4.84**	**168.32**	**-2.50**	**2.63**	**30.24**	**1.80**	**0.26**
2009	**19.01**	**6.1**	**2.32**	**270.00**	**0.50**	**1.83**	**29.05**	**-2.90**	**0.29**
2010	**13.70**	**7.0**	**1.63**	**246.44**	**6.10**	**0.89**	**36.15**	**1.50**	**0.42**
2011	**9.48**	**2.1**	**2.15**	**189.40**	**3.40**	**1.04**	**24.32**	**1.70**	**0.33**
2012	**12.19**	**1.5**	**1.53**	**228.42**	**1.50**	**1.26**	**29.38**	**0.70**	**0.32**
2013	**15.65**	**2.6**	**1.08**	**257.43**	**2.90**	**2.25**	**40.50**	**0.60**	**0.68**
2014	**11.16**	**3.5**	**0.82**	**266.77**	**2.40**	**1.64**	**26.50**	**0.00**	**1.55**

2015	**9.93**	**-0.1**	**0.85**	**223.53**	**2.70**	**1.67**	**26.00**	**-0.50**	**2.28**

Source*: World bank data 2016; Nigeria Stock Exchange, 2016; National Bureau of Statistics, 2016; Index Mundi (Standard and Poor's, Global stock market factbook and Supplemental, International Monetary Fund, International Financial Statistics), 2016.*

The table shows that the MCR started from a very low level of 8.73% in 1984 in Nigeria, 62.68% and 0.65% in South Africa and Kenya respectively; and grew to 258.62%, 190.10% and 10.93% respectively by 1999 but by 2009, while Nigeria MCR dropped to 19.01 %, South Africa and Kenya, however remained increasingly stronger reaching 270% and 29.05% respectively. However, by 2015, we observe a dip on this data by all the selected Sub-Saharan African countries to 9.93% (Nigeria), 223.53% for South-Africa and 26% (Kenya). For both the GDP growth rate and FDIR, we observed a cyclical growth between positive and negative for instance GDP growth rate was -4.6%, -1.8% and 2.5% for Nigeria, South-Africa and Kenya respectively in 1984 while by 1999 the rates had moved to 0.0%, 0.8% and 0.9% respectively and by 2015 the rates have moved further to -0.1%, 2.7% and -0.5%. The FDIR showed similar trends like the GDP growth rate.

4.1: DIAGNOSTIC TESTS

The aim here is to carry out various diagnostic tests to ensure that our data and model used in this research work conforms to the basic assumptions of the classical linear regression. This will ensure that the output of this process is not error prone and is reliable.

4.1.1: Test forStationarity

The test for stationarity requires that the variables in the series model must be stationery at a given level and p-value must be significant at that level. Stationerity is attained where the test statistics is most negative and greater than the critical value of the chosen level of significance.

Table 2: Unit Root Tests for Nigeria Data

Variables	ADF Test Statistics	Critical Values @5%	P-value	Order of Integration
FDIR	**-7.2699**	**-3.2217**	**0.0000**	**I(1)**
GDP	**-6.6859**	**-3.2217**	**0.0000**	**I(1)**
MCR	**-3.0526**	**-2.6210**	**0.0414**	**I(1)**

Table 2 reports the tests for stationarity properties of the series following the Augumented Dickey Fuller (ADF) statistics. All the variables were found to be stationery at order one (1). At the First difference as reported, the ADF Statistics for the respective variables were more negative than the critical values at 5% significance level. The reported P values were all less than 0.05 chosen level of significance for which cause, the Null Hypothesis of the presence of unit root in all the variables is convincingly rejected. For the purposes of Cointegration analysis and tests, it is also interesting to state that the variables are all integrated of the same order.

Table 3: Unit Root Tests for South Africa Data

Variables	ADF Test Statistics	Critical Values @5%	P-value	Order of Integration
D(MCR)	**-5.3404**	**-3.2335**	**0.0011**	**I(1)**
D(FDIR)	**-6.1286**	**-3.2381**	**0.0002**	**I(1)**
D(GDP)	**-4.4892**	**-3.2381**	**0.0078**	**I(1)**

Table 3 reports the tests for stationarity properties of the series following the Augumented Dickey Fuller (ADF) statistics. All the variables were found to be stationery at order one (1). At the First difference as reported, the ADF Statistics for the respective variables were more negative than the critical values at 5% significance level. The reported P values were all less than 0.05 chosen level of significance for which cause, the Null Hypothesis of the presence of unit root in all the variables is convincingly rejected.

Table 4 : Unit Root Tests for Kenya Data

Variables	ADF Test Statistics	Critical Values @5%	P-value	Order of Integration
D(MCR)	**-5.8417**	**-3.2184**	**0.0002**	**I(0)**
D(FDIR)	**-6.7828**	**-3.2217**	**0.0000**	**I(0)**
D(GDP)	**-6.5487**	**-3.2184**	**0.0043**	**I(0)**

Table 4 reports the tests for stationarity properties of the series following the Augumented Dickey Fuller (ADF) statistics. All the variables were found to be stationery at order zero (0). At levels as reported, the ADF Statistics for the respective variables were more negative than the critical values at 5% significance level.

The reported P values were all less than 0.05 chosen level of significance for which cause, the Null Hypothesis of the presence of unit root in all the variables is convincingly rejected

TABLE 5 – PANEL UNIT ROOT RESULT

Variables	LLandC Test Statistics	Critical Values @5%	P-value	Order of Integration
D(MCR)	-6.50578	-6.724	0.0000	I(1)
D(FDIR)	-7.01822	-7.258	0.0000	I(1)
D(GDP)	-7.2267	-7.532	0.0000	I(1)

The Table 5, shows the stationerity tests for the panel data series following the Levin, Lin and Chu (LLC) statistics. All the panel variables were found to be stationery at first difference level (1). At first difference levels as reported, the variable p-value were all 0.0000 and less than the 5% chosen significance level and thus we reject the Null hypothesis of the presence of Unit root and accept the alternative that there is no unit root and stationerity is attained by all the variables at the first difference levels.

4.1.2 Test for Heteroskedasticity (Arch)

The assumption of the classical linear regression that the variance of the errors is constant is known as *Homoskedastycity*. If the variance of the errors is not constant, this would be known as *Heteroskedasticity.* Hence, we test for the presence of heteroskedasticity with the intention of treating same if found. The treatment method adopted here is the Autoregressive conditionally Heteroscedastic test known as ARCH. The Null hypothesis states that there is no Heteroscedasticity if the p-value is greater than the level of significance (Brooks, 2014).

Table 6: Heteroskedasticity Table Result for Nigeria

Heteroskedasticity Test: ARCH			
F-statistic	2.655278	Prob. F(1,28)	0.1144
Obs*R-squared	2.598520	Prob. Chi-Square(1)	0.1070

Source: Author's E-View 7 computations

The null hypothesis states that there is No heteroskedasticity if p-value is not significant and is greater than the chosen level of significance of 5%. Hence, in this case we accept the Null hypothesis that there is no evidence of heteroskedasticity since p-value is greater than 5% significance level.

Table 7: Heteroskedasticity table Result for South Africa

Heteroskedasticity Test: ARCH			
F-statistic	1.275092	Prob. F(1,26)	0.2691
Obs*R-squared	1.308981	Prob. Chi-Square(1)	0.2526

Source: author's E-view 7 computations

From table 7 for South Africa, we accept Null hypothesis that there is No heteroskedasticity since p-value is greater than the chosen level of significance of 5%. This was arrived at after one (1) period lag treatment.

Table 8: Heteroskedasticity Table Result for Kenya

Heteroskedasticity Test: ARCH			
F-statistic	0.194578	Prob. F(2,23)	0.8245
Obs*R-squared	0.432595	Prob. Chi-Square(2)	0.8055

Source: Author's E-view 7 Computation

For Kenya, we accept Null hypothesis that there is No heteroskedasticity since p-valueis greater than the chosen level of significance of 5%.

4.1.3 Test For Serial Correlation – Breusch-Godfrey (BG) Tests

The Breusch-Godfrey tests is used to test for the presence or absence of serial or autocorrelations in the model with the Null hypothesis stating that there is No autocorrelation. This holds if p-value is greater than the chosen level of significance otherwise reject.

Table 9: Breusch-Godfrey Serial Correlation Test – Nigeria

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.382660	Prob. F(2,19)	0.2750

Obs*R-squared	3.557447	Prob. Chi-Square(2)	0.1689
Test Equation: Equation 3.2			

Source: Author's E-view 7 computations

From table 9, the p-value is greater than the chosen level of significance of 5%, indicating the absence of autocorrelation in the model. This is further enhanced with a Durbin-Watson statistics of 1.653. Hence, we do not suspect any violation of the assumptions of classical linear regression. The applicable treatment was to lag the variables by four (-4) periods.

Table 10: Breusch-Godfrey serial correlation Test for South Africa

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.524342	Prob. F(2,21)	0.5995
Obs*R-squared	1.426867	Prob. Chi-Square(2)	0.4900
Test Equation: Equation 3.2			

Source: Author's E-view 7 computation

From table 10, the p-value is greater than the chosen level of significance of 5%, indicating the absence of autocorrelation in the model for South Africa. This was arrived at after treating the variables with a one (1) period lag.

Table 11: Breusch-Godfrey Serial Correlation Test – Kenya

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.303660	Prob. F(4,19)	0.8719
Obs*R-squared	1.802615	Prob. Chi-Square(4)	0.7720
Test Equation: Equation 3.2			

Source: Author's E-Views 7 computation

From table 11, the p-value is greater than the chosen level of significance of 5%, indicating the absence of autocorrelation in the model. This was arrived at after treating the variables with a one (1) period lag.

4.2 Hypothesis Testing

Ho_1: Foreign direct investment has no significant effect on stock market capitalization ratio to Gross Domestic Product.

HA_1: Foreign direct investment has significant effect on stock market capitalization ratio to Gross Domestic Product.

Table 12: Regression Result for Nigeria

Dependent Variable: MCR				
Method: Least Squares				
Date: 03/11/17 Time: 16:19				
Sample (adjusted): 1989 2015				
Included observations: 27 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-39.18274	16.59034	-2.361780	0.0270
FDIR(-2)	15.58982	4.593223	3.394092	0.0025
GDP(-5)	1.070961	1.314543	0.814702	0.4236
MCR(-1)	0.820567	0.079012	10.38533	0.0000
R-squared	0.870299	Mean dependent var		71.40333
Adjusted R-squared	0.853381	S.D. dependent var		88.83012
S.E. of regression	34.01376	Akaike info criterion		10.02736
Sum squared resid	26609.53	Schwarz criterion		10.21934
Log likelihood	-131.3694	Hannan-Quinn criter.		10.08445
F-statistic	51.44364	Durbin-Watson stat		1.536660
Prob(F-statistic)	0.000000			

Source: Author's computer generated Eviews result

The R^2 and Adjusted R^2 both showed 87.03% and 85.33% respectively. This shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 87.03% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 87.03%. Also, with a high Adjusted R^2 (85.33%) implies that the model can take on more variables conveniently without the R^2 falling beyond 85.33%, which is very commendable. F-statistics of 51.444 is considered very good being positive and significantly large enough and it shows that there is significant positive relationship between the dependent and explanatory variables. The overall probability (F-statistics) of 0.0000 is rightly signed and very

significant and displays a Durbin-Watson of 1.54, which is considered good as it shows little or no effect of autocorrelation on the chosen data.

Hence, from table 12, the Nigeria FDIR(-2) at lag 2, has a t-statistic value of 3.394092 and a p-value of 0.0025, was found to have a positive effect on market capitalization and this effect is statistically significant at 5% level since its p-value is well below 0.05. Therefore, we reject null hypothesis to accept the alternative. However, the GDP(-5) at lag 5, has a t-statistic value of 0.814702 and p-value of 0.4236 and this effect is positive and statistically not significant at the 5% level. The GDP is to act as a moderator to the outcome of both the dependent and independent variable. The implication of this result is that a 1% increase in FDIR will result to a 15.590% increase in MCR and the coefficient of the past level of FDIR variable has a positive sign and is positive at the 5% significance level. This supports the view that the past level of FDIR in Nigeria positively affects market capitalization.

Table 13: Regression Result for South Africa

Dependent Variable: MCR				
Method: Least Squares				
Date: 03/11/17 Time: 17:16				
Sample (adjusted): 1989 2015				
Included observations: 27 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	94.21424	29.95606	3.145081	0.0045
FDIR(-3)	-7.118410	3.813510	-1.866630	0.0748
GDP(-5)	1.363009	3.217015	0.423688	0.6757
MCR(-1)	0.580001	0.148420	3.907836	0.0007
R-squared	0.501964	Mean dependent var		186.9826
Adjusted R-squared	0.437002	S.D. dependent var		51.15259
S.E. of regression	38.38141	Akaike info criterion		10.26898
Sum squared resid	33882.05	Schwarz criterion		10.46095
Log likelihood	-134.6312	Hannan-Quinn criter.		10.32606
F-statistic	7.727122	Durbin-Watson stat		2.321006
Prob(F-statistic)	0.000959			

Source: Author's E-view computations

The result in table 13 shows R^2 and Adjusted R^2 of 50.2% and 43.7% respectively. This shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 50.2% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 50.2%. Also, with a high Adjusted R^2 (43.7%) implies that the model can take on more variables conveniently without the R^2 falling beyond 43.7%. F-statistics of 7.7271 is considered acceptable being positive and it shows that there is significant positive relationship between the dependent and explanatory variables. The overall probability (F-statistics) of 0.00096 is rightly signed and very significant and displays a Durbin-Watson of 2.3210, showing the absence of autocorrelation on the chosen data.

Hence, from table 13, the South Africa FDIR(-3) at lag 3, has a t-statistic value of -1.8666 and a p-value of 0.0748, was found to have a negative effect on market capitalization and this effect is statistically not significant at 5% but significant at 10% level since its p-value is well below 0.10. Therefore, we accept null hypothesis to reject the alternative. However, the GDP(-5) at lag 5, has a t-statistic value of 0.423688 and p-value of 0.6757 and this effect is positive and statistically not significant at the 5% level. The implication of this result is that FDIR has a depressive effect on MCR and that a 1% increase in FDIR will result to a 7.1184% reduction in MCR. It shows that past levels of FDIR negatively affects market capitalization in South Africa.

Table 14: Regression Result for Kenya

Dependent Variable: MCR				
Method: Least Squares				
Date: 03/11/17 Time: 15:14				
Sample (adjusted): 1985 2012				
Included observations: 28 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.071185	2.928799	1.390053	0.1773
FDIR(3)	0.393543	2.409522	0.163328	0.8716
GDP(3)	0.473943	0.746994	0.634467	0.5318
MCR(-1)	0.786724	0.118810	6.621686	0.0000
R-squared	0.657589	Mean dependent var		18.22571
Adjusted R-squared	0.614788	S.D. dependent var		13.93962
S.E. of regression	8.651688	Akaike info criterion		7.284950
Sum squared resid	1796.441	Schwarz criterion		7.475264
Log likelihood	-97.98929	Hannan-Quinn criter.		7.343131

F-statistic	15.36375	Durbin-Watson stat		2.028038
Prob(F-statistic)	0.000009			

Source: Author's E-view computation

The R^2 and Adjusted R^2 both showed 65.76% and 61.48% respectively. This shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 65.76% and implies that chosen explanatory variables explains variations in the dependent variables to the tune of 65.76%. Also, with a high Adjusted R^2 (61.48%) implies that the model can take on more variables conveniently without the R^2 falling beyond 61.48%, which is acceptable. The F-statistics of 51.444, probability (F-statistics) of 0.0000 and Durbin-Watson Statistic of 2.0280 (Showing absence of autocorrelation) are considered very good being positive and significant.

Hence, from table 14, the Kenya FDIR(3) at lead 3, has a t-statistic value of 0.163328 and a p-value of 0.8716, was found to have a positive and statistically insignificant effect on market capitalization at 5% level since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Similarly, the GDP(3) at lead 3, has a t-statistic value of 0.634467 and p-value of 0.5318 and this effect is positive and statistically not significant at the 5% level. The presence of the GDP is to moderate the outcome of both the dependent and independent variable. The implication of this result is that a 1% increase in future levels of FDIR will positively increase MCR by 0.394% in Kenya.

Table 15: RESULT - MARKET CAPITALIZATION USING PANEL EGLS TEST

Dependent Variable: MCR				
Method: Panel EGLS (Period weights)				
Date: 03/10/17 Time: 10:05				
Sample (adjusted): 1987 2015				
Periods included: 29				
Cross-sections included: 3				
Total panel (balanced) observations: 87				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.304264	1.839543	1.796242	0.0779
FDIR(-3)	-1.145605	0.532486	-2.151429	0.0359
GDP(-3)	0.123704	0.336255	0.367886	0.7144
MCR(-1)	0.999426	0.014116	70.80128	0.0000
	Effects Specification			
Period fixed (dummy variables)				

Source: Author's Eviews computation

From table 15, FDIR(-3) at lag 3, has a t-statistic value of -2.1514 and a p-value of 0.0359, was found to have a negative effect on market capitalization and this effect is statistically significant at 5% level since its p-value is well below 0.05. Therefore, we reject null hypothesis to accept the alternative.

However, the GDP(-3) at lag 3, has a t-statistic value of 0.3679 and p-value of 0.7144 and this effect is statistically not significant at the 5% level. Though its presence acts as a moderating variable in the model, it doesnot have any significant effect on market capitalization. This result is very instructive as past levels of FDIR shows negative but significant effect on market capitalization within the Sub-Saharan Africa at the 5% level of significance and indicates that a 1% increase in past levels of FDIR will result to a 1.1456% decline in market capitalization.

Table 16 – Panel Cointegration Result

Pedroni Residual Cointegration Test				
Series: FDIR GDP MCR				
Date: 04/06/17 Time: 21:06				
Sample: 1984 2015				
Included observations: 96				
Cross-sections included: 3				
Null Hypothesis: No cointegration				
Trend assumption: No deterministic trend				
User-specified lag length: 1				
Newey-West automatic bandwidth selection and Bartlett kernel				
Alternative hypothesis: common AR coefs. (within-dimension)				
			Weighted	
	Statistic	Prob.	Statistic	Prob.
Panel v-Statistic	0.442684	0.3290	0.350758	0.3629
Panel rho-Statistic	-3.100403	0.0010	-2.895121	0.0019
Panel PP-Statistic	-4.725480	0.0000	-5.218593	0.0000

Panel ADF-Statistic	-2.855786	0.0021	-3.581007	0.0002
Alternative hypothesis: individual AR coefs. (between-dimension)				
	Statistic	Prob.		
Group rho-Statistic	-3.316060	0.0005		
Group PP-Statistic	-6.462531	0.0000		
Group ADF-Statistic	-2.998841	0.0014		

Author's Eviews computation

Table 16 shows the existence of cointegration between market capitalization and foreign direct investment with six cointegrating vectors and negatively significant statistic (rho-stat; p-value of 0.0010 and 0.0019 with statistics of -3.100403 and -2.895121 respectively; PP-stat; p-value of 0.0000 and 0.0000 with statistics of -4.72548 and -5.21859 respectively; while for ADF-stat; p-value of 0.0021 and 0.0002 with statistics of

-2.85579 and -3.58101 respectively). These test results shows the existence of a negative and statistically significant long-run equilibrium effect of FDI on MCR leading to acceptance of the alternative hypothesis that there exist a significant of FDI on MCR in the long-run at the 5% level of significance.

Decision Rule: We reject the null hypothesis and accept the alternative that foreign direct investment has a negative but statistically significant effect on market capitalization in the Sub-Saharan Africa in the short and long-run equilibrium period.

4.3 Discussion of Findings

The result of the panel data regression analysis revealed that foreign direct investment has a negative but significant effect on Stock Market Capitalization in Sub-Saharan Africa. The study showed that past levels of foreign direct investment has a negative (t-statistic of -2.1514) and statistically significant effect (p-value of 0.0359) on market capitalization at the 5% level of significance in the short-run period. The coefficient of the past levels of FDIR has a negative sign (-1.1456%) at the chosen level of significance. This implies that a 1% increase in past levels of FDIR will result to a 1.1456% decline in market capitalization.This result is further corroborated by the cointegration tests which showed a negative and statistically significant effect of FDIR on MCR in the long-run period. The result of this study is consistent with the findings of Singh and Weisse (1998), Karolyi (2004), Lamouchi and Zouari (2013) and Nwosa (2015), who also found a negative and significant effect of FDI on market capitalization. It also supports the theoretical foundation of Dunningselectic theory. A plausible direct interpretation of this result is that the governments' foreign direct investment policies in Sub-Saharan Africa have overtime been counter balanced due to possible lack of transparency in corporate governance and market-friendly regulations.

It is also important to note that in the individual country analysis, while only Nigeria and South Africa showed significant effect of FDI on market capitalization at 5% and 10% level of significance respectively, Kenya did not. The diagnostic testings revealed that the variables were stationery at first difference.

V. Conclusion and Recommendations

The results emanating from this study proved that foreign direct investments have significant effecton development of stock market capitalization. Hence, based on the result of this investigation, we recommend that the Sub-Saharan African governments should create foreign direct investment enabling environments within the region to attract foreign investors and capital inflows.This will include the provision of tax incentives, ease of doing business and improved regulatory environment. These will allow the region and respective countries to maximize the gains of the spillover effects of foreign direct investments.

References

[1]. Adam, A. M. &Tweneboah, G. (2008). Foreign Direct Investment and Stock market Development: Ghana's Evidence. International Research Journal of Finance and Economics, 26, 178-185.

[2]. Adaramola, A. O. &Obisesan, O. G. (2015). Impact of foreign direct investment on Nigerian capital market development. International Journal of Academic Research in Accounting, Finance and Management Science, 5(1):103-108.

[3]. Akinlo, A.E. (2004). Foreign direct investment and growth in Nigeria: an empirical investigation. Journal of Policy Modelling, 26, 627-39.

[4]. Al Nasser, O. M. &Soydemir, G. (2010). Domestic and International Determinants of Foreign Direct Investment in Latin America.FMA Annual Meeting, New York, USA.

[5]. Ali U. A., Adam A., Zunaidah S. &Abdullahi A. T. (2015). Causal Relationship between Stock Market Returns and Macroeconomic Variables in Nigeria.IOSR Journal of Humanities And Social Science (IOSR-JHSS) Volume 20, Issue 5, Ver. II (May. 2015), PP 74-96

[6]. Bekaert, G., Harvey, C.R. &Lundblad, C., (2004a). Growth volatility and financial liberalization. Unpublished working paper, Duke University, Durham, North Carolina.

[7]. Bekaert, G., Harvey, C.R., Lundblad, C. & Siegel, S., (2004b). Growth opportunities and market integration. Unpublished working paper, Columbia University, New York.

[8]. Brooks, C. (2008). Introductory Econometrics for Finance. (New York) Cambridge University Press 2nd Edition.
[9]. Central Bank of Nigeria (2013). Central Bank of Nigeria Statistical Bulletin, various issues, 1986 to 2015.
[10]. Dailami, M., &Aktin, M. (1990). Stock markets in developing countries: key issues and a research agenda. Policy Research and External Affairs Working Papers Series, No. 515. Financial Policy Systems, the World Bank.
[11]. Desai, M. A., Foley, C. F. & Hines Jr., J. R. (2006). Capital Controls, Liberalizations, and Foreign Direct Investment. The Review of Financial Studies, 19, 1434-1464.
[12]. Dunning J. &Rugman, A. (1985). The Influence of Hymer's Dissertation on the Theory of Foreign Direct Investment. American Economic Review 75, (2):228-232.
[13]. Dunning J. H. (1994). Re-evaluating the benefits of Foreign Direct Investment. Transnational corporations. vol. 3, February, No 1, 23-51.
[14]. Dunning J. &Rugman, A. (1985). The Influence of Hymer's Dissertation on the Theory of Foreign Direct Investment. American Economic Review 75, (2):228-232.
[15]. Dunning, J. H. (1973). The determinants of international production.Oxford Economic Papers 25. [7].
[16]. Dunning, J. H. (1980). Toward an eclectic theory of international production:Some empirical tests. In Journal of International Business Studies Issue 11. [8].
[17]. Dunning, J. H. (1988). The Eclectic Paradigm of International Production:A restatement and some possible extensions. Journal of International Business Studies Issue 19 (Spring).
[18]. El-Wassal, K.A. (2005). Understanding the Growth in Emerging Stock Markets. Journal of Emerging Market Finance, 4(3), 227–61.
[19]. El-Wassal, K.A. (2013).The Development of Stock Markets: In Search of a Theory. International Journal of Economics and Financial Issues, Vol. 3, No. 3, 2013, pp.606-624
[20]. Fama, E. F. & French, K. R. (1992). The Cross-Section of Expected Stock Returns. Journal of Finance 47:427–65.
[21]. Fama, E. F. & French, K. R. (1998). Value Versus Growth: The International Evidence.Journal of Finance 53:1975–99.
[22]. Hau, H. & Rey, H. (2006). Exchange rates, equity prices, and capital flows.Review of Financial Studies 19, 273–317.
[23]. International Monetary Fund, (2003a). & Organisation for Economic Co-operation and Development (2003b). Foreign Direct Investment Statistics: How Countries Measure. FDI (Washington: International Monetary Fund).
[24]. International Monetary Fund, (2003a). International Financial Statistics, October 2003 issue (Washington) Unravelling the Developmental Impact of Foreign Direct Investment in Sub- Saharan Africa. IZA Working Paper No. 3296.
[25]. International Monetary Fund (2003). Growth and Institutions. World Economic Outlook, Washington: IMF.
[26]. Issouf, S. &Fulbart, T. T. (2015). Causality between FDI and Financial Market Development: Evidence from Emerging Markets. World Bank Economic Review-Oxford Journal.
[27]. Kaleem, R. &Shahbaz, M. (2009). Impact of Foreign Direct Investment on Stock Market Development: The Case of Pakistan.9th Global Conference on Business and Economics, Cambridge University, UK.
[28]. Karim, N. A. (2009). Foreign Direct Investment: Key to Poverty Reduction in Malaysia. The IUP Journal of Applied Economics, Vol. 8, Nos. 5 and 6, pp. 55-64, September and November 2009.
[29]. Kenya Investment Authority (2004).
[30]. Kenyan Institute of Economic Affairs (2012).
[31]. Kim, Y. H., Jose Y. & Jimmy Y. J. (2008). Relative performance of trading halts and price limits: Evidence from the Spanish stock exchange.International Review of Economics and Finance 17, 197–215.
[32]. Lamouchi, A. &Zouari, E. (2013). Financial Development and Capital Inflows: The effect on the real exchange rate. Global Journal of Management and Business Research Finance, 13(3), pp. 30-42.
[33]. Levine, R. &Zervos, S. (1998). Stock Market, Banks and Economic Growth.American Economic Review, Vol. 88, pp. 537-558.
[34]. Maunder, P., Myers, D., Wall, N., Miller, R. (1991) Economics Explained. 2nd ed, London: HarperCollins.
[35]. Mojekwu, J. N. &Ogege, S. (2012). Foreign direct investment and the challenges of sustainable development in Nigeria. Journal of Research in International Business and Management Vol. 2(7) pp. 190-198.
[36]. Morck, R., Shleifer, A., Vishny, R.. (1990), The Stock Market and Investment: Is The Stock Market a Sideshow?.Brookings Paper on Economic Activity, 2, 157–202.
[37]. Ndikumana L. &Verick, S. (2008). The linkages between Foreign Direct Investments and domestic investment: Unravelling the Developmental impact of foreign investments in Sub-Sahara Africa. A Journal of Developmental Policy Review, 2008, 26(6): 713-726.
[38]. Ndikumana, L. (2003). Capital Flows, Capital Account Regimes, and Foreign Exchange Rate Regimes in Africa. Working Paper Series No. 55, Political Economy Research Institute (PERI), University of Massachusetts Amherst.
[39]. Nwosa, P. I. (2015). Impact of Infrastructural Expenditure on Stock Market Development in Nigeria. Scholars Middle East Publishers-Bulletin 1 (1), 1-4
[40]. Oke, M. O. (2012). Foreign Direct Investment and the Nigerian Financial Sector Growth. Asian Economic and Financial Review, 2(2), pp.262-275.
[41]. Olowe, O., Mathew, O. &Fasina, F. (2011). Nigeria Stock Exchange and Economic Growth. Covenant University, Nigeria, Knowledge management elibrary, No.14, 2011
[42]. Oseni, O. I. &Enilolobo, S.O. (2011). Effect of Foreign Direct Investment and Stock market Growth. A Journal of Finance,14 (2)
[43]. Oseni, O. I. &Enilolobo, S.O. (2011). Effect of Foreign Direct Investment and Stock market Development on Economic Growth in Nigeria. Journal of Economics and Sustainable Development, Vol.2, No.9, 2011.
[44]. Otchere, I., Soumare, I., &Yourougou, P. (2011). FID and financial market development in Africa [Online] Available at: http://www.uneca.org/sites/default/files/page_attachments/soumare_and_otcherel-fdi_and_financial_market_development_in_africa_0.pdf [Retrieved September 28, 2013].
[45]. Parthapratim P. (2006). Foreign portfolio investment Stock market and economic development: A case study of India. Draft paper submitted for the Annual conference of Development and Change mission promoting development in a globalized world.
[46]. Patton, A. J. (2012). Copula Methods for Forecasting Multivariate Time Series. Handbook of Economic Forecasting (2).
[47]. Popoola, O.T. (2014). The Effect of Stock Market on Economic Growth and Development of Nigeria. Journal of Economics and Sustainable Development, Vol.5, No.15, 2014.
[48]. Rajan, R. J. &Zingales, L. (2003). Saving Capitalism from the Capitalists: Unleashing the Power of Financial Markets to Create Wealth and Spread Opportunity. Princeton University Press, Princeton, NJ.
[49]. Roza, A. D. &Shahla F. A. (2014). Alternative Dispute Resolution Design in Financial Markets.some more equal than others: Presented at the DSA Conference.Universality of Strathclyde, Glasgow.

[50]. Singh, A. &Weisse, B. A. (1998).Emerging Stock Markets, Portfolio Capital Flows and Long-term Economic Growth: Micro and Macroeconomic Perspectives. World Development Journal. Vol. 26(4), pp.607-622.
[51]. Soumaré, I. &Tchana T. F. (2015). Causality between FDI and Financial Market Development. Evidence from Emerging Markets. World Bank Economic Review Journal
[52]. Sulaiman, U. M. & Mohammed, I.(2014).Stock Market Development, Foreign Direct Investment and Macroeconomic Stability. Evidence from Nigeria. IisteVol 5, No 18
[53]. Syed, A. R., Syed, T. J., &Sahar, A. (2013). Is Stock Market Sensitive to Foreign Capital Inflows and Economic Growth? Evidence from Pakistan, MPRA paper No. 48399.
[54]. UNCTAD (2007). World Investment Report_TNCs in Extractive Industries and Manufacturing.
[55]. Wooldridge, J. M (2006). Introductory Econometrics. A modern Approach (3rd edition). Thomson South-Western. Steven Momper Publishers, Canada
[56]. World Bank (1997) Economic Review
[57]. World Bank (2014) Economic Review
[58]. World Bank (2014). Making Foreign Direct Investment work for Sub-Saharan Africa: Local Spillovers and competitiveness in Global Value Chain (GVC). World Bank elibrary, April 2014. Doi:10.1596/978-1-4648-0126-6.
[59]. World Bank (2015) Economic Reuter
[60]. Zuliu, H. (1995). Stock market Volatility and Corporate Investment. IMF Working Paper, 95/102.

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