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Determinants of Foreign Direct Investment Flows into Kenya

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Abstract:

Kenya like many countries around the world has continued to put great effort in attracting Foreign Direct Investments (FDI). In the recent past the country has hosted a number of international delegations and conferences with the sole aim of attracting foreign direct investments. In the early 1970s and 1980s, Kenya was the preferred destination for Foreign Direct Investment in Eastern Africa. However in the last two and a half decades Kenya has seen its preference dwindling compared to its immediate neighbours; Tanzania, Ethiopia and Uganda. This study aimed at investigating the factors that determine FDI flows into Kenya. The study specifically looked at factors such as economic growth proxied by annual percentage change in real Gross Domestic Product, inflation, proxied by secondary school enrolment expenditure, proxied by total government consumption expenditure to GDP, and human capital, proxied by secondary school enrolment rate. The study used purposive sampling method to choose a sample of 26 years from 1970 to 2015. The study used the multiple regression technique to establish the causal relationship between FDI and its determinants using the Statistical Package for the Social Sciences (SPSS) Version 22.0 and Gretl.

The result of the study established that Government Expenditure, Human Capital, Economic Growth and Inflation have positive and significant effect on Foreign Direct Investment flows into Kenya. It is therefore recommended that the government puts in place policies that will attract FDI. These may include investment in infrastructure, improvement of human capital, increase in economic growth and controlled inflation would go a long way in attracting FDI.

1. Introduction

1.1. Background of the Study

Foreign direct investment is an investment by a foreign investor for which the investor has control over the company purchased. Control is defined as owning 10% or more of the business (UNCTAD, 1998). It is accomplished by opening up of the local economic sector and domestic capital for foreign investors to establish business enterprises within the economy. Technological advancement led to the emergence of better means of transport and communication which has further led to the movement of investors beyond domestic boundaries, (Pritchard, 1996). OECD, (2000) defines FDI as "a category of cross-border investment made by a resident entity in one economy with the objective of establishing a lasting interest in an enterprise that is resident in an economy other than that of the direct investor". The foreign investor exerts some degree of influence over the management of its direct investment enterprise(s). This may or may not involve exercising a controlling interest. In many cases, however, the relationship is strong enough that the investor will control the direct investment enterprise. FDI may take many forms, such as direct acquisition of a foreign firm, construction of a facility, or investment in a joint venture with a domestic firm.

A country may register either an outward flow or an inward flow of FDI. Outward flows of Foreign Direct Investment represent transactions that increase the investment that investors in the home economy have in enterprises in a foreign economy, such as through purchases of equity or reinvestment of earnings, less any transactions that decrease the investment that investors in the home economy have in enterprises in a foreign economy, such as sales of equity or borrowing by the resident investor from the foreign enterprise. Inward flows of Foreign Direct Investment represent transactions that increase the investment that foreign investors have in enterprises resident in the home economy less transactions that decrease the investment of foreign investors in resident enterprises. Most countries strive to attract FDI because of its real or perceived significance as a tool for economic development. The New Partnership for Africa's Development (NEPAD) is seen as an effort by African countries to attract FDI, (AERC Research Paper 165). Kenya has had a long history with foreign firms. From independence to the 1970s and early 1980s it was one of the most favoured destinations of FDI in Eastern Africa. This was attributed to Kenya's relative political stability and security, (Abala, 2014).

FDI has increasingly become an important source of private external finance for many 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. Like other developing countries, Kenya is facing an economic downturn characterized by low levels of living and productivity, low levels of human capital, higher levels of inequality and absolute poverty, high level of unemployment and low levels of industrialization and manufactured exports, (Todaro & Smith, 2003). Through promotion of

technology transfer, FDI plays a significant role in economic development of developing countries, (UNCTAD, 2005). Due to this development, Ikiara, (2003) and UNCTAD, (1998), recognize the significance of FDI in providing technological know-how, capital, management skills, facilitating access to foreign markets and generating both technological spillovers to local firms as long as the business conditions and right policy are provided. FDI therefore improves the integration of the Kenya's economy into the global economy. De Mello, (1997) argued that by increasing the stock of capital, FDI can increase the country's output and productivity through an efficient use of existing resources and by absorbing unemployed and underemployed resources.

1.1.1. Foreign Direct Investment on a Global Perspective

On a global perspective FDI plays an important role which include providing a firm with new markets, cheaper equipment for production, new technologies and management skills and requisite finances. As such FDI provides a strong impetus to economic development. Hermes & Lensink, (2003) outlined the methods through which positive externalities associated with FDI can occur namely: competition channel where increased competition leads to increased productivity, efficiency and investment in human and physical capital. Increased competition brought about by the presence of FDI may lead to changes in the structure of industries towards competitiveness and more export-focused activities; training avenues through increased training of labour; linkages channel where foreign investment is normally accompanied by transfer of technology to domestic firms.

Over the past ten years FDI flows into the European Union (EU) has been fluctuating with a progressive increase recorded between the year 2005 and 2007 from US\$ 456,995 Million to US\$ 825,238 Million. This was followed by a decrease in FDI inflows in the year 2008 with US\$ 315,955 Million. From the year 2008 to 2011 FDI flows into the EU progressively increased to US\$ 413,527 Million. The highest amount of FDI flows into the EU was US\$ 494,272 Million registered in the year 2015. FDI flows into the G20 countries also showed a similar trend with a progressive increase in FDI flows from US\$ 619,227 Million to US\$ 1,141,573 Million in the year 2005 to 2007. In the year 2008 and 2009 FDI inflows decreased from US\$ 1,031,984 Million to US\$ 691,010 Million which then increased to US\$ 1,058,001 Million. From the global perspective the trends were similar with the highest FDI of US\$ 1,989,970 Million registered in the year 2007 and the least FDI inflows of recorded in the 2009 at US\$ 1,176,663 Million. It is imperative to note that the decline in 2008 and 2009 was mainly attributed to the global financial and economic crisis that affected mainly United States (US) and Europe. Table 1 gives the FDI flows into the EU, the G20 and the World in the year 2005 and 2015.

FDI Flows, Inward, Million US dollars, 2005-2015											
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
European	456,99										
Union	5	524, 832	825, 238	315, 955	378, 208	380, 044	413, 527	293, 595	315, 560	264, 795	494, 272
	619, 2		1, 141, 5	1, 031, 9			1, 058, 0		1,001,4		
G20	27	870, 862	73	84	691, 010	906, 217	01	873, 690	96	834, 679	975, 414
	982, 7	1, 445, 9	1, 989, 9	1, 571, 3	1, 176, 6	1, 500, 0	1, 695, 3	1, 470, 0	1, 550, 5	1, 438, 1	1, 891, 7
World	44	26	70	00	63	66	33	68	72	15	77

Table 1: FDI Inflows to the European Union, G20 and World (OECD, data.oecd.org, 2016)

1.1.2. Foreign Direct Investment on a Local Perspective

In the past few years, Sub Saharan Africa has not been left behind in an effort to attract FDI. This is because FDI has come to play a major role in the internationalization of businesses. This has led to changes in technological knowhow, market liberalization and rejuvenated capital markets. The reduction in tariff and non-tariff barriers over the past two decades have led to an increase in FDI inflows to Sub Saharan Africa. According to the World Trade Organization, non-tariff barriers to trade include import licensing, rules for valuation of goods at customs, pre-shipment inspections, rules of origin, and trade prepared investment measures. The privatization and deregulation of many firms, have been the most significant driver for FDI's expanded role in economic development. Over the last 45 years FDI flows into Sub Saharan Africa has been on the rise with a total of US\$ 707,000 Million received in 1970 and US\$1,049,000 Million received in 1975. For the next one decade the FDI inflows declined. However from 1990 to 2015 FDI flows into sub Saharan Africa has consistently increased from a low of US\$ 1,226,000 in the year 1990 to a high of US\$ 31,014,000 Million in the 2015. Kenya's two neighbours, Uganda and Tanzania, has also witnessed increasing levels of FDI over the years with Tanzania attracting a paltry \$ US3,070 Million in the year 1970 and US\$ 1,960,582 in the year 2015. Uganda too has experienced increasing levels of FDI inflows over the years with a low of \$ 4,200 Million in the year 1970 and uS\$ 1,437,000 Million in the year 2015. In terms of FDI flows into Kenya attracted US\$ 13,800 Million in the year 1970 and US\$ 1,437,000 Million in the year 2015. Table 2 represents the FDI flows into Sub Saharan Africa, Tanzania, Uganda and Kenya over the last four and half decades.

FDI Flows, Inward, Million US dollars, 1970-2015										
Year	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015
Sub Saharan	707,00	1,049,00	252,00	962,00	1,228,00	4,538,00	6,807,00	19,216,00	28,309,00	31,014,00
Africa	0	0	0	0	0	0	0	0	0	0
Tanzania	3,070	-870	4,580	14,510	10	119,937	463,401	935,521	1,813,200	1,960,582
Uganda	4,200	2,100	4,000	-4,000	-5,910	121,200	160,700	379,808	543,873	1,057,301
Kenya	13,800	17,159	78,974	28,846	57,081	42,289	110,905	212,117	178,065	1,437,000

Table 1: FDI Inflows to Sub Saharan Africa, Tanzania, Uganda and Kenya (World bank, 2016)

1.2. Statement of the Problem

Developing countries face a number of challenges ranging from low per-capita income; low levels of human capital; high levels of poverty and under-nutrition; higher population growth rates; predominance of agriculture and low levels of industrialization; low level of urbanization but rapid rural-to-urban migration; dominance of informal sector and underdeveloped labor, financial, and other markets (Todaro & Smith, 2003). To address these challenges, developing countries have devised a number of strategies. One of these strategies is through the attraction of Foreign Direct Investment. Kenya and in deed all countries, developed and developing, have prioritized attraction of Foreign Direct Investment. In the early 1970s Kenya was the preferred destination for FDI in Eastern Africa. Indeed between 1970 and 1980, Kenya received an average of US\$ 385,653 Million per year. During the same period Tanzania and Uganda received US\$ 4,723 Million and US\$ 1,092 Million per year respectively. Kenya's competitiveness for FDI however took a dip from 1995 to 2015 with both Uganda and Tanzania registering higher FDI than Kenya. For instance, within this period Kenya received US\$ 229,070 Million. Tanzania and Uganda on the other hand received US\$ 879,840 Million and US\$ 524, 004 Million respectively. The biggest question that has continued to worry policy makers is why Kenya has been overtaken by its neighbours despite its earlier preference for FDI in the region. Policy makers are asking what these countries have done differently. This study is therefore aimed at investing the underlying factors that determine FDI inflow. This would help in addressing the above issues and would help Kenya turn around her dwindling fortune in FDI attraction.

2. Literature Review

2.1. Theoretical Review

2.1.1. Vernon Product Life Cycle Theory

The International product life cycle was developed by the economist Raymond Vernon in 1966. The theory explains certain types of foreign direct investment made by U.S. companies in Western Europe after the Second World War in the manufacturing industry. Vernon believed that there are four stages of production cycle. These are innovation, growth, maturity and decline. According to Vernon, in the first stage the U.S. transnational companies create new innovative products for local consumption and export any surplus in order to also serve the foreign markets. The foreign market was mainly in Europe where after the Second World War there was an increased demand for manufactured products like those produced in USA. It is imperative to note that the establishment of US companies in Europe was compounded by the fact that not only did these countries require manufactured goods but they were also able to afford these particular commodities. This was due to the fact the Second World War was followed by increased economic growths in these European countries. There was therefore a ready market for these goods. If in the first stage of the production cycle, manufacturers have an advantage by possessing new technologies, as the product develops the technology becomes known. Manufacturers will standardize the product, but some local firms of importing country will copy the standardized product. Thus, European firms started imitating American products that U.S. firms were exporting to these countries. In order for US companies to maintain their market shares in those foreign markets they were forced to perform production facilities on the local markets. This theory managed to explain certain types of investments in Europe made by U.S. companies from 1950-1970.

This theory therefore represents the process of an advanced country developing and exporting a particular commodity, losing the export market share to other countries who imitate that innovation, and then ending up as a net importer of the product. The rational of the theory is the assumption that new technology diffuses slowly enough to generate temporary differences between countries. Vernon's hypothesis is relevant only to innovation in certain kinds of products, namely to those associated with high income and those which substitute capital for labour.

2.1.2. Eclectic Paradigm Theory

This theory was developed by Dunning in 1977. It came as a result of his dissatisfaction with other FDI theories. It is a mix of three different theories of foreign direct investments i.e. the Ownership, Location and Internalization (OLI) paradigm. Dunning suggested that a firm would engage in FDI if three conditions were fulfilled: It should have ownership advantages compared with other firms (O); It is beneficial to internalize these advantages rather than to use the market to transfer them to foreign firms (I); and there are some location advantages in using a firm's ownership advantages in a foreign locale (L).

Ownership advantages are those which are specific to a firm. These advantages are in the form of both tangible and intangible assets. These ownership advantages lead to reductions in a firm's production costs and allow it to compete with firms in a foreign country. They refer to intangible assets, which are, for a while exclusive possessions of the company and may be transferred within transnational companies at low costs, leading to higher incomes or reduced costs (Vintila, 2010). Location advantages of different countries play an important role in determining which country will play host to multinational corporations. The specific advantages of each country can be divided into three categories: Economic benefits such as factors of production, costs of transport, telecommunications, market size; political advantages such as government policies that affect FDI flows; and social advantages such as distance between the home and foreign countries, cultural diversity among others, (Dinkar & Rahul, 2004). These factors therefore play a major role in attraction of inward FDI. The third factor is the internationalization advantage which explains 'why' a MNE would want to exploit its assets abroad by opening or acquiring a subsidiary versus simply selling or licensing the rights to exploit those assets to a foreign firm. Internalization benefits is higher when the firm engage in foreign production rather than licensing or franchising this right. (Yarbrough & Yarbrough, 2002) report that though this theory has been criticized for only listing the conditions necessary for FDI without explaining its phenomenon, it has widely contributed to international production theory. All these three

types of conditions must be satisfied before FDI occurs. (Dunning, 1980) stated that the OLI triad of variables determining FDI and MNCs activities may be likened to a three-legged stool where each leg supports the others. Among other contribution, Dunning's eclectic paradigm combines several complementary theories, and identify a set of factors that influence the activities of MNCs.

2.1.3. Theory Based on Strength of Currency

This theory explains the basis of FDI on the strength of the currencies, (Aliber, 1970). He explained his theory in terms of the differences in the strength of the currencies in the source and host country. He postulated that weaker currencies had a higher capacity to attract FDI. FDI is found to flow from countries with stronger currencies to countries with weaker currencies. This is to take advantage of differences in the market capitalization rate. This theory was found to be consistent with FDI in the United States, Canada and the United Kingdom. Countries with weaker currencies are also found to have usually higher inflation rates. Exchange rate can therefore be used as a proxy indicator for inflation rates. This theory may however explain FDI inflows from developed to developing countries. This theory does not however provide an explanation for investment between two developed countries that have currencies of equal strength. Additionally, the theory cannot explain foreign direct investments from developing countries (weaker currency) to developed countries (stronger currency).

2.1.4. Theories Related to International Trade

There have been attempts to integrate FDI theory with the theory of international trade. Adam Smith in 1776 and David Ricardo in 1817, pioneered the theory that provided explanations of trade between nations. Adam Smith developed his theory based on absolute difference in costs. According to him, two countries will engage in trade if one country has an absolute advantage in the production of one commodity and an absolute disadvantage in the production of another commodity. The absolute costs include costs of labour, capital and land, the three main factors of production. It is noted however that this theory does not explain the existence of trade between countries where one country does not have a line of production in which it has an advantage. David Ricardo elaborated Adam Smith's theory through its theory of comparative advantage. According to this theory a country will specialize and export the commodity in whose production it has comparative cost advantage and import that which is has a cost disadvantage. This theory was based on using one factor of production-labour and thus it is the difference in production technology that explains the different costs that provide incentive for trade. These classical theories however by assuming that labour is immobile across the borders do not provide explanations for the movement of capital across borders.

2.2. Empirical Review

2.2.1. Economic Growth

The role of economic growth in attracting FDI has been the subject of controversy. Chakrabarti, (2001) in the study of the Determinants of Foreign Direct Investments: Sensitivity Analyses of Cross-Country Regressions using Extreme Bound Analysis noted that a rapidly growing economy provides relatively better opportunities for making profits than the ones growing slowly or not growing at all. Schneider & Frey, (1985) in the study of the economic and political determinants of Foreign Direct Investment in 80 less developing countries find a significantly positive effect of growth on FDI. The study was conducted using four different models. These include: "political model", "economic model", "amalgamated" model and "politico-economic" model. The political model was restricted to testing the influence of political instability on foreign direct investment flows. The economic model contains the economic determinants of FDI. Amalgamated model uses the institutional investors' credit rating indicator composed of both economic and political factors. The politico-economic model of both the economic and political factors. On the other hand, Nigh, (1985) reports a weak positive correlation for the less developed economies and a weak negative correlation for the developed countries. Abala, (2014), finds that the causality between economic growth and FDI is unclear. According to him, the direction of FDI might be associated with domestic policy variables. The direction of the relevant causalities between FDI and growth may depend on other determinants of FDI. If the determinants have strong links with growth in the host country, then growth may be found to cause FDI inflows. The process of economic growth is influenced by political, social and cultural factors. As such economic analysis can provide only a partial explanation of this process. The supply of natural and human resources, capital formation and technological development too have a strong bearing on the process of economic growth. Policymakers believe that rising economic growth has a positive effect on FDI inflows. A growing GDP reflects a large market size which acts as a stimulus to FDI inflows especially the market seeking FDI. This results in more demand for products or services to be provided by FDI. Large and fast growing economy can further offer economies of scale and reduce the transportation and product marketing cost as most products will be sold in the economy of the host country.

Heshmati & Tony, (2003) in a study of FDI determinants in Europe, Africa and Latin America finds a positive and significant effect of GDP growth on FDI. The effect is strongest in Europe and Latin America, and has the weakest effect in Africa. They observed that this is consistent with the fact that horizontal FDI is attracted to countries in which real income, and therefore domestic purchasing power, is growing. The study observed that FDI to Africa is mostly driven by investment in natural resource sectors. As such growth rate of the economy is, therefore, largely irrelevant to the investment decision, for example, in the West African oil sector. Dees, (1998) in a study on the determinants and effects of foreign direct investments in China found that FDI has been important in explaining the economic growth of China. Nair-Reichert & Weinhold, (2001), using a mixed fixed and random panel data estimation method to allow for cross country heterogeneity in the causal relationship, find some evidence that efficacy of FDI in raising future growth rate, although heterogeneous across countries, is higher for more open economies. Alfaro & Charlton, (2009) examined the

role of financial market in FDI-growth nexus. Their empirical evidence indicates that FDI plays an important role in contributing to economic growth. There is need however of a strong local financial markets for the positive effects to be realized by the firms.

A few studies have been done on the effect of economic growth on FDI inflows in Kenya. Kinuthia, (2010) looked at the effect of FDIs inflow into Kenya on economic growth, export and balance of payment. He found out that though there are some trends between FDI inflow and GDP, there is no conclusive relationship that can be drawn from these trends. The trends are taken from a ten year period and in some years FDI inflow and GDP moved in the same pattern. Abala, (2014) looked at the empirical relationship between economic growth and Foreign Direct Investment. He further looked the determinants of FDI. In his model for FDI determinants he looked at factors such as real gross domestic product, infrastructure, openness of the economy, market size, real interest rate, total debt service to GDP ratio and return on investment. The study covered the period 1970-2010. He used annual time series data obtained from secondary sources. Using regression he found that the real gross domestic product measured as defined above is shown to be a major influence on the FDI inward flow. This is because a high real GDP reflects a large market size that attracts FDI. Higher GDP leads to higher demand for the products and services provided by the foreign firms. A high real GDP therefore has a positive influence on the FDI. Wasseja & Mwenda, (2015) did a study on the determinants of FDI in Kenya using Ordinary Least Square model. The study used data over 1980-2013 periods. The linear regression model revealed that, economic growth rate is the most significant determinant of foreign direct investment inflows in Kenya.

2.2.2. Inflation Rate

Inflation rate measures an economy's macro-economic stability. A low and stable inflation rate results to a reliable economic environment which enables investors to benefit from existing economic opportunities. Nnadozie & Osili, (2004), finds that high inflation rate negatively influences FDI inflows. However the findings of Brahmasrene & Jiranyakul, (2001), indicates that inflation actually has a positive effect on FDI. Heshmati & Tony, (2003) in their study on FDI determinants in Europe, Africa and Latin America looked at how inflation affects FDI. The study found contrasting result on the effect of inflation on FDI. The result was either insignificant or weakly significant. Countries that have erratic macroeconomic policies have high inflation, but also a high variance in the inflation rate. They found that variance of inflation is weakly significant for a pooled model. They showed that the variance of inflation is negative for Europe and Central Asia, Western Europe, and Middle-East and North Africa. However for Latin America it was found to be positive. This reflected the fact that Latin American economies can perform substantially well under high inflation because of indexing their contracts.

Asiedu, (2006) in her study titled "Foreign Direct Investments in Africa: The role of Natural Resources, market size, government policy, government policy and institution and political instability" did find a positive correlation between FDI and low inflation. Walsh & Yu, (2010) in the study of the determinants of FDI used a sectoral and institutional approach. The dataset used divided FDI flows into primary, secondary and tertiary sector investments. They analyzed in a sample of emerging market and developed economies various developmental, macroeconomic, and institutional determinants of Foreign Direct Investment. The data used were observations from 1985 to 2008 for 26 middle and high income economies. They used Generalized Method of Moments (GMM) dynamic estimator based on the Arellano-Bond methodology. With respect to inflation the study does not find a strong effect of inflation on FDI across all sectors. This may have been due to the sample used biased towards emerging markets and advanced economies. Nonnenberg & Mendonca, (2004), also found out that FDI is correlated to level of inflation among other factors.

Wasseja & Mwenda, 2015 in their study to determine the effects of a number of macroeconomic variables on FDI, found that contrary to expectations, inflation is positively related to foreign direct investments. They attributed this to the fact that increase in money supply causes a rise in inflation and thus more money in circulation implies more investment. Therefore more inflow of FDI increases the rate of inflation ceteris paribus. Andinuur, (2013) explored linkages between inflation, FDI and economic growth in Ghana using annual time series data covering the period 1980 to 2011. The study employs the cointegration approach and the Granger causality testing procedure to empirically examine the relationships and directional relationships between the variables. The relationship between inflation and foreign direct investment was found to be positive. There was no directional causal relationship inflation to GDP and FDI. Mehmet, (2011) looked at the association between growth, FDI, trade and inflation in Turkey using time series data for the period 1970 to 2008. The results of the Johansen co-integration test revealed that inflation and FDI positively relate to growth. Faiza, Anish, & Bisma, (2012) did also investigate the impact on foreign direct investment due to the growth and inflation of Pakistan using time series data over the period of 1990 to 2011. The findings indicate that inflation has a negative effect on FDI and it is statistically significant.

2.2.3. Government Expenditure

Government expenditure represents consumption by the government. A high consumption by the government may indicate higher taxes levied on the corporate sector. This may have negative effects on FDI. On the other hand a high share of government consumption may also indicate that the consumption pattern is stable. The government usually invest a large proportion of its consumption in infrastructure, which ultimately promotes FDI. When government spends a large proportion of its expenditure on infrastructure then there will be a positive impact of government consumption on FDI, (Chakrabarti, 2001). This finding however contradicts that of (Mkenda & Mkenda, 2004) which found a negative relationship between government consumption expenditure and FDI inflows. This finding is premised on the fact that a learner government is more efficient, and as such creates a conducive environment for robust private investment. In addition, a large government tends to "crowd out" private investment in an economy. Abala, (2014) found out that government expenditure influences economic growth positively. The higher the level of the general final government consumption the more the social capital and this encourages production and the growth of GDP. Anyanwu, (2011) using

data of a panel of seven five-year non-overlapping windows for the period 1980-2007 in looking at the determinants of FDI inflows to Africa found that Government consumption expenditure is positively significant and confirms that such expenditures to provide or maintain infrastructure is valued by foreign investors.

2.2.4. Human Capital

Human Capital is measured by the percentage enrolment of children in secondary school. It is theorized that a higher enrolment rate in secondary school has a positive effect on FDI. Heshmati & Tony, (2003) however found human capital to have negative effect on FDI. On the other hand he found a positive and significant relationship between the variables in Sub Saharan Africa. The higher the level of education, the higher the potential for an investment decision and achievement of expected outcome. However, skill-biased technological change indicates that a part of the production from industrialized countries is increasingly moved or outsourced to less developed countries (Heshmati & Tony, 2003). Noorbakhsh, Paloni, & Youssef, (2001) in their study of human capital and FDI inflows to developing countries found a positive relationship between the availability of an educated workforce and FDI. He further noted that wages and salaries as a percentage of total national expenditures have a positive effect on FDI inflows. They found strongest correlation in the Middle-East and North Africa countries. A higher share of wages and salaries may to a larger extent indicate a larger market. The wage share may be used as a proxy indicator for human capital. Countries with better stocks of human capital tend to have higher wage shares in national income. Rodriguez & Pallas, (2008) found that human capital is the most important determinants of FDI inflows. Nonnenberg & Mendonca, (2004), in a panel data analysis for 38 developing countries for the 1975-2000 period, concluded that FDI is correlated to level of schooling among other factors. Alsan, Bloom, & Canning, (2006) in a panel data analysis of a number of industrialized and developing countries found that gross inflows of FDI are strongly and positively influenced by population health which they used as a proxy of human capital development. Noorbakhsh et al. (2001) showed the positive effect of human capital generally on FDI. Asiedu, (2006) in her study titled "Foreign Direct Investments in Africa: The role of natural resources, market size, government policy, government policy and institution and political instability" used an unbalanced panel data for 22 countries in Sub Saharan Africa over the period 1984–2000. She broadly classified explanatory variables into four namely: Policy variables (inflation rate, human capital, infrastructure development and openness to FDI); Institutional variables (corruption and the extent to which the rule of law is enforced); Political risk variables (coups, assassinations and revolutions) and other variables (natural resource availability and GDP). The paper found out that an educated labour force attracts FDI. Reiter & Steensma, (2010) shows that FDI inflows are more strongly positively related to improvement in human development when FDI policy restricts foreign investors from entering some economic sectors. In addition, it finds that the relationship between FDI and improvement in human development is also more strongly positive when corruption is low. Rodriguez & Pallas, (2008) find that human capital is the most important determinants of inward Foreign Direct Investment. These findings corroborates the findings that Abala, (2014) who also found out that human capital is a major contributor to FDI inflows. While most studies find a positive correlation between FDI and human capital, Walsh & Yu, (2010) finds little effect of human capital on FDI inflows. This may be due to the sample used, including many developed economies as well as emerging markets with relatively high levels of human capital, shows less variation in human capital and thus less of an impact on FDI inflows.

2.2.5. Foreign Direct Investment

Kenya is an economic hub in sub-Saharan Africa. Like many countries in Africa it is dependent on Foreign Direct investment for a number of reasons including capital formation and employment. Kenya also serves as the East African business hub for many international companies such as General Motors, Citibank, and Coca-Cola among others. The country is endowed with a broad range of natural resources, good climatic condition and arable land. In terms of motive, FDI may be classified into: Resource seeking FDI; Market seeking FDI; Efficiency seeking FDI; and Strategic asset seeking FDI. Resource seeking FDI seek to secure natural resources for the investing company. They are usually export-oriented. This type of FDI is also attracted to countries with abundant natural resources such as oil and gas. Market seeking FDI identify and exploit new markets for the firms` finished products. They serve local and regional markets and involves the replication of production facilities in the host countries (Abala, 2014). For instance automotive MNCs have invested heavily in China. Efficiency seeking FDI seek to restructure its existing investments so as to achieve an efficient allocation of international economic activity of the firms. International specialization enables firms to benefit from differences in product and factor prices and to diversify risk. These firms seek to improve efficiency by rationalizing the structure of their global activities. It is undertaken primarily by network based MNCs with global sourcing operations. Strategic assets seeking FDI seeks to obtain strategic assets that may be critical to their long-term strategy but are not available at home. Strategic assets seeking investment unlike other motives for FDI does not imply the exploitation of an existing ownership advantage of the firm.

Kinaro, (2006) using time series analysis finds that FDI in Kenya is determined by economic openness, human capital, real exchange, inflation, and FDI in the previous periods. Opolot, Mutenyo, & Kalio, (2008) find using panel data for Sub Saharan African countries, Kenya included; that market potential, openness to trade, infrastructure, urbanization, and rate of return on investment positively affect foreign direct investment inflows to Sub-Saharan Africa, while macroeconomic instability is a disincentive to foreign direct investment. Other variables such as government consumption, financial development, natural resources, wage and political rights are found to be insignificant.

A study by Bosworth & Collins, (1999) on the effect of capital inflows on domestic investment for 58 developing countries during 1978-1995 provides some valuable evidence. The 58 countries covers almost all of Latin America and Asia, as well as many African countries. The authors categorized inflows into three different types namely: FDI, portfolio investment, and other financial flows. They found that an increase of a dollar in capital inflows is associated with an increase in domestic investment of about 50 cents. This

result, however, masks significant differences among types of inflows. FDI appears to bring about a one-for-one increase in domestic investment; there is no visible relationship between portfolio inflows and investment. These results hold both for the 58-country sample and for a subset of 18 emerging markets. Bosworth and Collins asked whether these benefits of financial inflows are enough to offset the risks of allowing markets to freely allocate capital across the boundaries of developing countries. To this, they concluded that FDI does.

There is renewed research on the area of FDI. Caves (1996) observes that the rationale for increased efforts to attract more FDI stems from the belief that FDI has several positive effects. These include gains on productivity, technology transfers, introduction of new processes and managerial skills. Other benefits include training of employee and access to markets including foreign markets. Borensztein, Gregorio, & Lee, (1998) see FDI as an important vehicle for the transfer of technology, contributing to growth in larger measure than domestic investment.

3. Research Methodology

3.1. Data Analysis

In this study, the population would be from 1963-2015. The population in this study is very large, making a census impractical. Samples will be collected and statistics calculated so that one can make inferences from the sample to the population. A population sample of for the period 1990-2015 will therefore be taken. Time series data for this period will be analyzed. Data was obtained mainly from World Bank's World Development Indicators. Additional data was obtained from the Central Bank of Kenya (CBK) Statistical Bulletin and Financial reviews and the International Monetary Fund's International Financial Statistics. Secondary data is used in this case because the economic variables under study need to have been observed and published for a number of years. Secondary data also provides larger and higher quality databases that would be unfeasible for a researcher to collect on his own.

The research uses the Statistical Package for the Social Sciences version SPSS 22.0 and Gretl to analyze the data. Multiple regression model is used to determine the effects of the human capital, government expenditure, inflation rate and growth rate influence Foreign Direct Investment inflows into Kenya. This model has been used by Abala, (2014), and Niazi, et. al, (2011) albeight with the inclusion of other variables such as debt service to GDP ratio, Corruption Perception Index and interest rate. This particular model has introduced inflation rate as one of the independent variables which was not included in the other model. The multiple regression model is given as:

➤ FDI=f (RGDP, GOVSIZE, INF, HUMCAP)

The equation which relates Foreign Direct Investment to various socioeconomic variables that influence it can be elaborated as with the inclusion of the error term:

FDI= β 0 + β 1EG + β 2GOVEXP+ β 3INF + β 4HUMCAP + ϵ ...

Where:

- FDI = Foreign Direct Investment
- EG = Economic Growth proxied by annual percentage change in real GDP.
- HUMCAP = Human Capital proxied by secondary school enrollment rate.
- GOVEXP=Government expenditure proxied by total government consumption expenditure to GDP.
- INFL = Inflation rate measured by the annual percentage in consumer price index.
- ε = Stochastic error term.

The regression coefficients $\beta 0$, $\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$ are to be estimated.

In the equation, FDI is measured as the ratio of FDI to GDP and is the dependent variable. A high real GDP, it is hypothesized attracts further FDI, resulting in more demand for products or services, (Njoroge & Oketch, 2011).

Government Expenditure is represented by government consumption expenditure as a percentage of the Gross Domestic Product. It is hypothesized that a higher government consumption would attract more foreign direct investment.

The level of human capital measured by the secondary school enrolment rate is hypothesized to have a positive impact on the FDI. Availability of cheap and skilled labour force tends to attract FDI and enhances productivity in a country.

The rate of inflation measured by the annual percentage change in consumer price index is a reflection of the macroeconomic stability of the country. A low inflation level implies a reliable economic environment enabling investors to benefit from existing opportunities, Serven and Solimano (1993). A negative relationship exists between inflation and FDI.

3.2. Data Presentation

The Findings from data analysis will be presented in the form of descriptive statistics such as mean and standard deviation and inferential statistics which will include correlation and regression analysis.

4. Research Findings and Discussions

4.1. Requisite Tests

4.1.1. Testing for Multicollinearity between the Study Variables

According to Besley, Kuh and Roy (1980) cited in Keraro (2014), identification of multicollinearity in a model is important and is tested by examining the tolerance and the Variance Inflation Factor (VIF) diagnostic factors. The VIF measures the impact of multicollinearity among the variables in a regression model. Green (1998), also cited in Keraro (2014) argued that even though there is no formal criterion for determining the bottom line of the tolerance value or VIF, tolerance values that are less than 0.1 and VIF greater than 10 roughly indicates significant multicollinearity. The study sought to find out if multicollinearity existed between dependent variable and the independent variables. According to Cohen *et al.*, (2003), the suggested cut-off point for multicollinearity is tolerance level of 0.8. Also, Hair *et al.* (2006) and Leech *et al.*, (2014) proposed a cut-off point for determining presence of multicollinearity at a tolerance value of less than 0.10, or a VIF of above 10. From Table 3, the study concluded that there was no case of multicollinearity between the independent variables.

Research Variable	Collinearity Statistics			
	Tolerance	VIF		
Government expenditure	0.795	1.257		
Human capital	0.770	1.299		
Economic growth	0.671	1.491		
Inflation	0.740	1.351		

Table 3: Multicollinearity Test between Study Variables

4.1.2. Testing for Autocorrelation between the Study Variables

Gujarat (2009) and Cameron (2005), both cited in Keraro (2014) defined autocorrelation as the correlation between members of a series of observations ordered in time or space. According to Gujarat (2009), the Durbin-Watson statistic ranges in value between 0 and 4. A value near 2 indicates non-autocorrelation; a value closer to 0 indicates positive correlation while a value closer to 4 indicates negative correlation. The study sought to establish whether there was any presence of autocorrelation between the dependent and independent variables. The results are presented in Table 4. From the Table, there was no autocorrelation between the dependent and independent variables since the Durbin-Watson coefficient was 1.432 which is nearly close to 2 which shows non-correlation.

Model Summary					
Model	Durbin-Watson				
1	1.432				

Table 4: Test for Autocorrelation between Study Variables

4.1.3. Normality Test

An assessment of the normality of data is a prerequisite for many statistical tests because normal data is an underlying assumption in Classical Linear Regression Modelling (CLRM) as well as parametric testing. A normality test is used to determine whether sample data has been drawn from a normally distributed population and that the data set is well-modelled by a normal distribution. A normality test was carried out on the dependent variable, the FDI inflows. A Normal Q-Q plot of the data was generated from the SPSS software and the findings are presented in Figure 1. The figure shows that most of the scatter dots fell within the line of best fit and, therefore, the study concluded that the dependent variable was drawn from a normally distributed population.

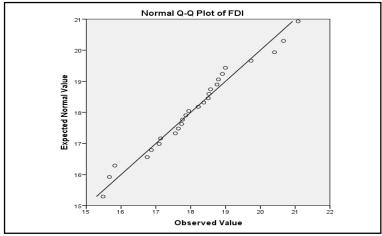


Figure 1: Normal Q-Q Plot for Dependent Variable

4.1.4. Testing for Heteroscedasticity in the Dependent Variable

One of the Classical Linear Regression Model (CLRM) assumptions is that the variance of the error term in any research data is constant. Homoscedasticity is a term used to denote a statistical situation where the error has the same variance (when line of best fit is fitted) regardless of the value(s) taken by the independent variable(s). In many situations, the error term doesn't have a constant variance, thus leading to a condition known as heteroscedasticity i.e. when the variance of the error term changes in response to a change in the value(s) of the independent variable(s). When the condition of heteroscedasticity is present, then the dispersion of the error term changes over the range of observations, thus forming a systematic pattern in the research data analysis. Presence of heteroscedasticity should be investigated before continuing with the analysis of the data.

In order to test for the presence of heteroscedasticity in the data, a scatter diagram was generated from SPSS as presented in Figure 2 by plotting the regression standardized residuals against the regression standardized predicted value. For the error term to have a homoscedastic variance, the residual are supposed to be roughly distributed in the rectangle shape with most of the scores distributed in the middle around the 0 point, and from the scatter diagram, we can see these outline which implies that the residuals are homoscedastic.

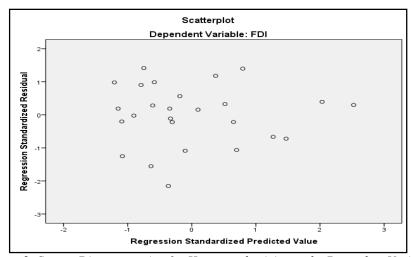


Figure 2: Scatter Diagram testing for Heteroscedasticity on the Dependent Variable

4.1.5. Testing for Stationarity

One of the assumptions in linear regression when dealing with Time Series data is the assumption of is stationary of data. Non-stationarity in the data leads to spurious regression results by inflating the values of R-squared leading to wrong interpretation of the results. Therefore there is need to ensure that the data is stationary before performing linear regression analysis. To test for stationarity, Augmented Dickey-Fuller (ADF) Unit Root t-statistic test was carried out in which the null hypothesis was that the data was not stationary. At 5% level of significance, large P-values will support this hypothesis. The results in Table 5 indicates that the data was stationary since all the P-values are less than the 5% level of significance.

Variable	P values
Foreign Direct Investment	1.392e ⁻⁰⁰⁶
Government Expenditure	0.0005189
Human Capital	1.074e ⁻⁰¹³
Inflation	4.312e ⁻⁰⁰⁸
Economic Growth	7.597e ⁻⁰⁰⁸

Table 5: Test for Stationarity in the Study Variables

4.2. Inferential Analysis

4.2.1. Correlation Analysis

Pearson's correlation is used when one is working with two quantitative variables in a population. The possible research hypotheses are that the variables will show a positive linear relationship, a negative linear relationship or no linear relationship at all (Keith, 2006; Stevens, 2009; Osborne & Waters, 2002). These authors argue that Pearson's correlation coefficients indicate the extent of interdependence between two variables. The Pearson correlation coefficient, r, can take a range of values from +1 to -1. A value of 0 indicates that there is no association between the two variables. A value greater than 0 indicates a positive association; that is, as the value of one variable increases, so does the value of the other variable. A value less than 0 indicates a negative association; that is, as the value of one variable increases, the value of the other variable decreases (Stevens, 2009). When significance level is very small (less than 0.05) then the correlation is significant and the two variables are linearly related and if the significance level is relatively large, for example, 0.50 or more, then the correlation is not significant and the two variables are not linearly related. This study sought

to establish whether there was any form of relationship between the FDI and the independent variables. As presented in Table 6, there is a significant relationship between the dependent variable (Y) and other independent variables. The correlation between FDI and Government Expenditure, Human Capital, Economic Growth and Inflation are 0.708; 0.767; 0.382 and 0.673 respectively. This implies that an increase in the independent variables leads to increases in the dependent variable.

		Foreign Direct Investment	Government Expenditure	Human Capital	Economic Growth	Inflation
Foreign Direct	Pearson Correlation	1	.708**	.767**	.382	.673**
Investment	Sig. (2-tailed)		.000	.000	.054	.000
	N	26	26	26	26	26
Government	Pearson Correlation	.708**	1	.230	.542**	.363
Expenditure	Sig. (2-tailed)	.000		.060	.004	.051
	N	26	26	26	26	26
Human Canital	Pearson Correlation	.767**	.230	1	.349	.241
Human Capital	Sig. (2-tailed)	.000	.000		.081	.071
	N	26	26	26	26	26
Economic Growth	Pearson Correlation	.382	.542**	.349	1	.549**
Economic Growth	Sig. (2-tailed)	.054	.004	.081		.004
	N	26	26	26	26	26
I. Cl. C.	Pearson Correlation	.673**	.363	.241	.549**	1
Inflation	Sig. (2-tailed)	.000	.051	.071	.004	
	N	26	26	26	26	26

Table 6: Correlation Analysis

4.2.2. Regression Analysis

The Effect of Government Expenditure, Human Capital, Economic Growth and Inflation on FDI

The results presented in Table 7 present the fitness of the regression model used in explaining the study phenomena. Government Expenditure, Human Capital, Economic Growth and Inflation explained 52.62% of variation in FDI flows into Kenya. The remaining 47.38% are explained by other factors which are not included in this study. This implies that Government Expenditure, Human Capital, Economic Growth and Inflation are good predictors of FDI flows into Kenya.

Indicator	Coefficient
R	0.72536
R-Squared	0.526154
Adjusted R-Squared	0.435897
Std. Error of the Estimates	0.04299

Table 7: Model Fitness

Table 8 provides the results on the Analysis of the Variance (ANOVA). The results imply that Government Expenditure, Human Capital, Economic Growth and Inflation are good predictors of FDI flows into Kenya. This was supported by an F statistic of 5.8295 on 4 and 24 degrees of freedom and the reported p value 0.0026 which was less than the conventional probability of 0.05 significance levels. This result indicates that the overall model fitted on the data is statistically significance.

	Sum of Squares	df.	Mean Square	F	Sig.
Regression	26.6151	4	6.65377	5.82954	0.0026
Residual	23.9692	24	1.14139		
Total	50.5843	25			

Table 8: Analysis of Variance

Table 9 represents regression coefficients of Government Expenditure, Human Capital, Economic Growth and Inflation against FDI flows into Kenya.

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Variable	В	Std. Error	t	Sig.
Constant	-6.9058	.288	-23.97847	.0000
Government Expenditure	2.81356	.106	26.54302	.0000
Human Capital	1.79286	.125	14.34288	.0000
Economic Growth	1.01717	.128	7.94664	.0001
Inflation	1.42314	.125	11.38512	.0000

Table 9: Regression of Coefficient

From Table 9, the specific model was:

 $Y=-6.9058+2.9058X_1+1.79286X_2+1.01717X_3+1.42314X_4$

Where X_1 is Government Expenditure, X_2 is Human Capital, X_3 is Economic Growth, X_4 is Inflation and Y is the FDI.

This result indicates that both Government Expenditure, Human Capital, Economic Growth and Inflation have a significant positive effect on the FDI flows into Kenya. This implies that a unit increase in Government Expenditure, Human Capital, Economic Growth and Inflation will lead to 2.81356; 1.79286; 1.01717 and 1.42314 respectively increase in FDI flows into Kenya.

> Hypothesis Testing

The hypothesis was tested by running a multiple Ordinary Least Squares regression analysis. The null hypothesis was: Government Expenditure, Human Capital, Economic Growth and Inflation do not have a combined significant influence on FDI flows into Kenya. As presented in Table 9, the calculated F-statistic of 5.8295 on 4 and 24 degrees of freedom was greater than the tabulated/critical f statistic 2.658. The findings were further supported by a p-value of 0.0026. This indicated that the null hypothesis was rejected hence Government Expenditure, Human Capital, Economic Growth and Inflation have a combined significant influence on FDI flows into Kenya.

5. Summary, Conclusions and Recommendations

5.1. Summary

The study set out to empirically investigate the effects of economic growth, human capital, inflation and government expenditure on Foreign Direct Investment inflows into Kenya.

Government Expenditure measured by total government consumption to GDP is found to have a positive effect on FDI flows into Kenya. A unit increase in Government Expenditure leads to 2.90554 increase in FDI inflows.

Human Capital measured by secondary school enrolment rate is found to have a significant positive effect on FDI flows into Kenya. A unit increase in Human Capital leads to 2.67081 times increase in FDI in Kenya.

Economic Growth measured annual percentage in real Gross Domestic Product has a significant positive effect on the FDI inflows in Kenya. A unit increase in Economic Growth will lead to 0.0358 times increase in FDI inflows.

Inflation measured by the Consumer Price Index has a significant positive effect on FDI inflows in Kenya. A unit increase in Inflation will lead to 1.14591 times increase in FDI in Kenya.

5.2. Conclusions

The objective of this study was to empirically analyze the determinants of FDI flows into Kenya. This was necessitated by the fact that Kenya's FDI inflow record over the recent past has not been good despite it being among the most favoured countries for FDI in the 1970s and 1980s in Eastern Africa. The realisation that Kenya is now among the countries with very low levels of FDI led to this study. By establishing empirically which factors drive FDI inflows to Kenya, it is possible to come up with policies that can attract FDI flows into Kenya. In order to undertake this I performed a multiple regression model based on the time series analysis of data over the 1990-2015 period.

According to the analysis Government Expenditure, Economic Growth, Human Capital and Inflation positively and significantly affected FDI flows into Kenya. In the study secondary school enrolment rate has been used as proxy for Human Capital, Consumer Price Index as a proxy for Inflation, total government consumption to GDP as a proxy for Government Expenditure and annual percentage change in real GDP as a proxy for Economic Growth. Thus, the study concludes that developing countries generally can attract FDI by providing more business friendly environment to the foreign investors.

5.3. Policy Recommendations

The study has established empirically which factors drive the inflows of FDI into Kenya. From the findings it is possible to design policies that can attract FDI flows into Kenya. The study has shown that human capital, government expenditure, inflation and economic growth are vital drivers of FDI inflows. Therefore policies that can enhance these factors would be required. For instance, Kenya should strive to improve the quality of its infrastructure through the allocation of more financial resources into this sector. The education sector remains the highest spender of public resources. This is a positive sign as far as the development of human capital is concerned. The envisaged introduction of free secondary education will go a long way in producing the right human capital necessary to attract and retain FDI. The Government should focus on improving the growth of the economy as this will lead to an expansion of the market. Though some level of inflation has been shown to have a positive effect of FDI inflows, it is imperative to note that this should not be let to go so high as very high inflation rates may actually have a reverse effect.

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