Does Foreign Direct Investment Encourage Exporting in Africa?

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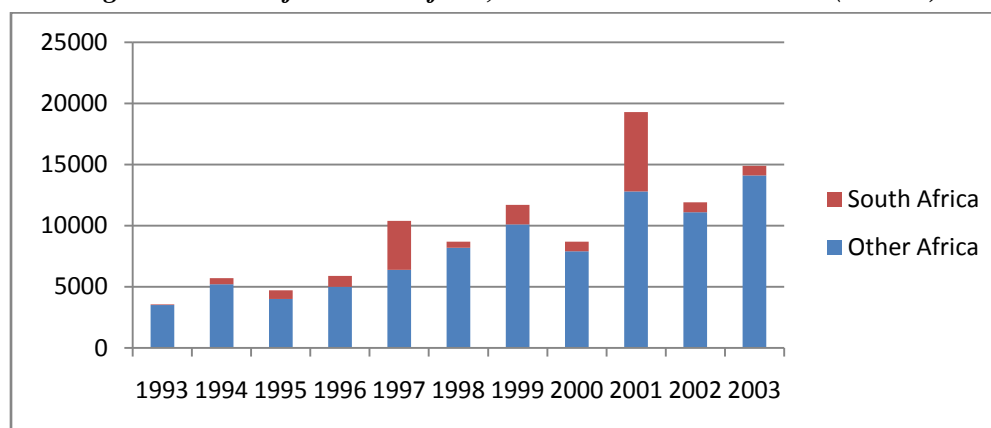South Africa

Abstract

The objective of this paper is to determine the relationship between FDI inflows and export in African countries. This research answers the question 'does foreign direct investment encourage exporting in Africa? The study began by exploring the FDI performance in Africa vis a viz the United Nations Conference of Trade and Development (UNCTAD) data. FDI have been found to be of resource, market and efficiency seeking motives in Africa. It also presents itself as either vertical or horizontal in scope. Panel estimation was used for analysis in three African countries i.e. Benin, Botswana and Kenya based on availability of data derived from the World Bank and IMF. It was found that there were direct relationships between real export and foreign direct investment in the three countries but the relationships were not significant. It was recommended that African countries should promote favorable exchange rates and encourage trade openness in order for FDI inflows to increase export growth.

1. Introduction

FDI is an important tool for the growth of African economies and as a result of that, there are ongoing needs for the continuous flow of FDI in continent. Governments in Africa are optimistic about attracting foreign investments into their economies because of the natural endowment of resources in most States. However, due to the fact that resources are not evenly distributed across countries, there have been uneven FDI flows into the continent in the past years (Dupasquier and Osakwe, 2005). The needs for technological transfer; entrepreneurship; efficient managerial techniques; innovations; international market access; and employment generation in host countries have been found to be the motivation for FDI in Africa (UNECA, 2002). There has been a growth of capital flows driven by FDI in the continent (Thomsen, 2005). Previously, such investments were limited by raw material but in recent times, such obstacles have been managed as most African States have witnessed the influx of foreign firms from more countries (see Figure 1).

At the emergence of global capitalism that promoted international trade, the experience of Africa has been a mixture of multinational corporation (MNCs), global financial regulation and host country policies. Indeed, the evolution of globalization engendered new approaches towards growth and development in the developing countries of Africa through FDI.
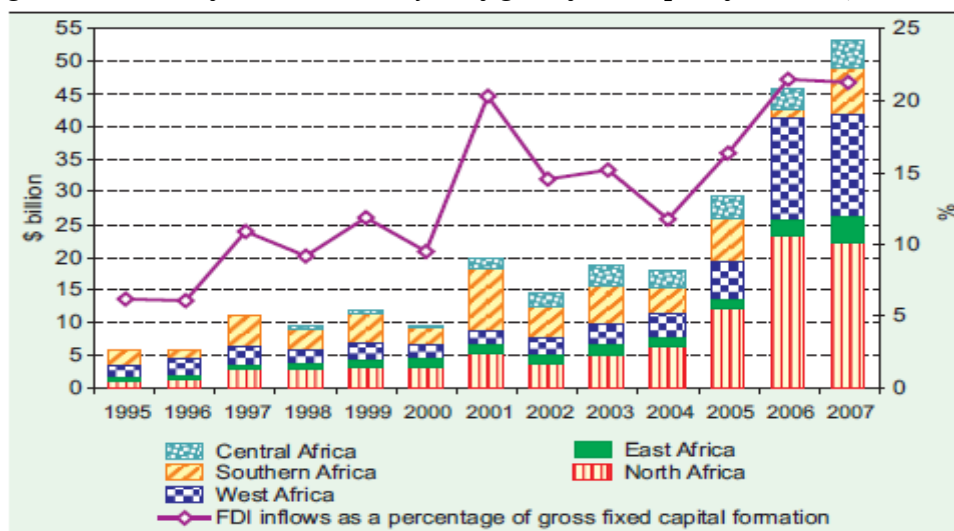
Figure 1: FDI Inflows into Africa, 1993 – 2003 in $US Dollar (million)

Source: UNCTAD (2008)

The surge of FDI flows to Africa could be explained as a result of a realistic paradigm shift from the dictates of the dependency theory (Amirahmadi and Wu, 1994). Sumner (2005) supports this modern *modus operandi* by asserting that the openness of host nations to FDI has the potential for growth and poverty reduction which ultimately leads to development.

Figure 2: FDI in Africa measured by % of gross fixed capital formation, 1995–2007

Source: *UNCTAD (2008)*

From Figure 2, FDI inflows to East Africa have been low compared to other parts of Africa. The Northern Africa region received the highest FDI inflows during the period. It is evident that FDI inflow in Africa affects gross fixed capital formulation of countries positively. Africa has awaken to be a preferred destination for greenfield investments, coincidentally, the United Nations Conference on Trade and Development (UNCTAD) which is saddled with the responsibility of promoting trade in countries launched a specific focus towards a global FDI regime for developing countries (UNCTAD, 2008).

1.1 Attractiveness of FDI into Africa countries (What attracts FDIs to Africa?)

FDI in Africa have been classified to have resource, efficiency or market seeking motives (see Table 2).

Table 1: Host Country Determinants OF FDI

	Host country determinants		Types of FDI classified by motives	Principal economic determinant in host countries
1	• Policy framework for FDI • Economic policies and social stability • Rules regarding entry and operators • Standard of treatments of foreign affiliates • Policies on functioning and structures of markets • International agreement on FDI • Privatization trade policy tariff and non-tariff barriers	1	Market seeking	• Market growth • Access to regional and global markets • Country specific consumer preference • Structure of market
2	• Economic determinants • Inflation • Openness • Interest rate • Foreign exchange rate • Tax policy	2	Resource seeking	• Raw material • Low-cost unskilled labour • Skilled labour • Technological innovation • Physical infrastructure
3	• Business facilitation • Investment promotion • Investment incentives • Social amenities/quality of life • After investment	3	Efficiency seeking	• Cost of resources and assets • Cost of other input • Membership of a regional intergration agreement

Source: Culled from the World Investment Report (2015)

However, the resource seeking agenda is the most common trait of FDI inflows in Africa because of the obvious natural resource endowment in the continent (see Table 2).

Table 2: Natural Resources in African Countries

Resources	Countries
Petroleum	Algeria, Angola, Chad, Equatorial Guinea, Nigeria, Sudan, and Tunisia
Apparel and Textile	Botswana, Ghana, Kenya, Lesotho, Madagascar, Mauritius, Mozambique, and Uganda
Automobile	South Africa
Telecommunications	Ghana, South Africa
Food and Drink	Cameroon, Tanzania, and Uganda

Source: Dupasquier and Osakwe (2005)

1.2 Some stylized facts about FDI in Africa

- The worth of FDI in Africa has risen from about US$ 9 billion in 2000 to US$ 18 billion and then to US$ 88 billion in 2004 and 2008 respectively (UNCTAD, 2009).
- As at 2003 FDI stocks by source region was accounted as follows: Europe $64,889 million, North America $20,835 million, Asia $7,865 million and South Africa $2,084 million. In recent time, the figure for Asia would have increased tremendously due to the emergence of new foreign investment from China.
- FDI is the preferred form of external source of finance in Africa for development purpose (NEPAD-OECD, 2010).
- Much of FDI are driven by the enormous availability of resources in the North, West, East and South regions of Africa (see Table 2)
- There have been new attractiveness for investing in Africa by non-OECD countries such as Asia (China) and Africa itself - (South Africa, Egypt and Morocco), in the last decade.
- According to Morriset (2000), Makola (2003) and Akinlo (2006), UNCTAD's FDI in Africa have been instrumental in achieving the following over the past few years: integration into the global economy (mainly through export and import); employment generation; creating an alternative for domestic savings; modern technology transfer; raising skills of local manpower and enhancing efficiency in the continent.

2.0 Literature Review

2.1 Theoretical literature

Some of theories on FDI have emanated from literatures. An examination of the theories assists to explain why some host countries have positive relationship between FDI and exports, and why some have a negative relationship between the two. Theories also explain why a multinational business would want to invest in another country instead of exporting its product to that same country. However, available literature on FDI provides limited cogent theoretical basis of FDI and export. Wilhelms (1998) classifies the effects of FDI into three i.e. the dependency[1], the modernisation[2] and the integrative schools of thoughts[3]. According to the classical trade theories of Heckscher-Ohlin and Richardo, the relationship between FDI and trade is inconclusive to determine the immobility of production factors internationally. But Schmitz and Helmberger (1970) differ from the theory by moving from factor immobility to capital mobility in international market because trade increases both factor and product which establishes a complementary link between FDI and trade. However, Vernon (1996) suggests a substitution relationship between FDI and trade arguing that when production location changes, there is an outflow of FDI in order to reduce production cost host countries like the United States to underdeveloped or developing countries.

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[1] The Dependency School of Thought explains why international trade promotes exploitation of developing counties by their developed counterpart, in the view of neo-Marxist and Structural theories.

[2] The Modernisation School of Thought is of the view FDI as a means implored by developing countries in order to attain higher developmental stages.

[3] The integrative school of thought is a non-traditional way that combines both previous school of thought. It focuses on the receiving nation as well as the investors' perspectives.

The neo-classical economists publicizes a theoretical agreement on export trade which came into view as a result of the success of newly industrialized countries (NICs) in achieving high sustainable rates of growth in their economies due to free markets and outward oriented trade. Markusen (1983) also present models that promote economies of scale with specific reference to new technologies rather than relative factor endowments. This avails factor mobility with a number of varieties of factor proportions and it creates an incentive for trade. Mundel (1957) suggests that FDI and trade can be substituted with capital mobility in the factor proportion model. Although the paradigm of Dunnig (1977) on ownership, location and internationalization has an effect on FDI theories, the notion is only useful when the objective of a multinational enterprise is to serve as a foreign market through export or local production. The impetus for export draws its rationale from the standard trade theory, stating that free trade among two or more countries will improve the welfare of the member countries as long as the arrangement leads to a net trade creation in the Vinerian[4] sense (Alayemuyu & Haile, 2002). Trade affects national income through three factors: prices of exports, prices of imports and the volume of demand.

A more realistic general equilibrium in the relationship between FDI and exports exist in recent times. There are various dynamics and mechanism of FDI, the benefits each offers, and the manner in which each interacts with the host economy For instance the new trade theories classifies FDI into two categories i.e. vertical and horizontal FDIs. The vertical FDI is factor intensity conscious, this helps to determine the stages of production, while the horizontal FDI Locates in host countries that are close final markets. These two types of FDIs explains Schmitz and Helmberger (1970) and Vernon (1996) findings on the complementary substitutionality relationship between FDI and export.

2.2 Empirical literature

Studies support that FDIs promotes growth especially in developing countries (Akinlo (2004), Buckley *et al*., (2002); De Mello (1997, 1999) and Borensztein *et al.,* (1998), this include exporting activities as well as export expansion. Seetanah and Khadaroo (2000) support that FDI increases domestic capital formation which in turn leads to large scale production and in turn encourages increasing export. Although multinational enterprises and FDI does not necessarily increase competitiveness of locally produced good, they lead to increased productivity and exports which determine economic growth in the long run (Lall, 2003). Mortimore (2000) affirms that FDI creates a platform for multinational enterprises but the benefits enjoyed by the host countries are minimal. This was evidenced in Trinidad, where foreign direct investment has not been commiserate to development of skills and capabilities of local downstream and supporting firms (Mytelka and Barclay, 2004). However, according to Loewendahl (2001) developed economies attract more export-oriented FDIs through selective targeting and promotion in host countries.

Empirical studies by Kokko, Tansini and M. Zejan (1997); Aitken, Hanson, and Harrison (1997); Sjöholm (1999); Sjöholm and Takii (2003); Greenaway, Sousa and Wakelin (2004); Kneller and Pisu (2005); shows significant positive relationship between multinationals and exports. For instance, according to (Zhao, 2011), foreign investment has an implications for patterns of trade and integration. Many African exports are channeled through multinational enterprises, helping to integrate African countries with one another and with the global economy (Thomsen, 2005). FDI in Angola brought about substantial positive economic effect due to the oil exports in the country. The Sino-Angolan commercial forum reports that Angola's oil exports to China grew from US$1 million in 2002, to 11 million of US$ in 2006 (CCS, 2006). Abor, Adjasi and Hayford (2008) found that FDI promotes the exports of host countries by facilitating domestic capital for exports. However, some studies have either found negative impacts of FDI on export and others are not clear of the effects of the two (Barrios, H. Görg and E. Strobl, (2003), Kneller and Pisu (2005); Ruane and Sutherland (2005)). Forintance, it was found that the export decision in Spain had no impact on multinational enterprises (Barrios *et al*., 2003)

Oyejide (1994) confirmed the positive relationships that exist between export and economic growth. Ayodele (1997) opined in his study that export success contributes to economic growth. By and large it has been held by a good number of development economists that trade is an engine of growth. Abogan, Akinola and Baruwa (2014) opined that a robust and strong export trade is indicative of how competitive the commodities and services are, and how large the scale of the industrial base of an economy is, this is reflected by the comparative advantages possessed by Nigeria. According to Todaro and Smith (2011) a welcoming attitude towards multinational

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[4] Associated with the work of economist Jacob Viner, as in the Vinerian concept of trade diversion.

corporations such as inward FDI encourages export. This has informed local economies to comply in order for export to grow in their countries.

3.0 Description of the Variables

Bearing in mind that the scope of this research is to determine the relationship between FDIs and export in Africa, a selection of three (3) countries in the continent is derived for an inference of the phenomenon been investigated. One country was selected from West Africa i.e. Benin, another from Southern Africa i.e. Botswana and another from East Africa i.e. Kenya. The limited selection is due to availability of data and time constraint. Variables such as: export (real export of goods and services), real GDP, real gross fixed capital formation, labour force, trade openness, natural resources availability, infrastructure development, political stability and exchange rates were derived from the World bank and IMF database. The decision to use these variables was informed by the studies done by Abor, Adjasi and Hayford (2008), De Gregorio (1998) and Asiedu and Lien (2004).

4.0   Empirical Analysis

As earlier stated, the objective of this research is to determine if FDI in Africa encourages export. A fixed-effect panel estimation was used for the analysis. The choice of using panel data analysis is justified because it takes care of the unobserved heterogeneity. Therefore, to be able to explain in details the causal-effect relationship between the dependent and the independent variables and to study the within variations, we use the error-components model analysis. This includes fixed effect and fixed effects LSDV. However, based on the nature of our data where we have twenty one (21) time series and three cross-sectional units both the fixed effects and fixed effect LSDV analysis are used. This will enable us to see if there is consistency in the results. We start with the fixed effect first. This is explored in the form of within variation.

Table 3: Fixed Effects (within variation regression) Estimation Real export

Variables	Coefficient	Standard error
Constant	14.13517	17.53508
Foreign direct investment	9.47e-09	8.22e-09
Gross fixed capital formation	1.97e-09	3.06e-09
Labour	-1.44e-06	2.67e-06
Exchange rate	.0356863*	.0203853
Infrastructural development	-70.51997	73.23901
Trade openness	4.121715***	.6765057

Source: Authors Computation

Note: Standard errors in parentheses. R2 = 0.6832 (within) R2 =0.508(overall) F(6,54)= 6.67***

* statistical significance at 10%   ** statistical significance at 5%.   ** *statistical significance at 1%

Table 3 shows the fixed effect results. From the table, it is clear that there is a direct relationship between real export and foreign direct investment in the countries but the relationship is not significant. It also obvious from the result that all the variables used in as independent variables are not statistically significant individually except exchange rate and trade openness.

The implication of this result is that both exchange rate and trade openness are very germane to the real export volume of these countries. For instance the coefficient of the exchange rate is 0.0356863. This shows that there exist a significant direct relationship between exchange rate and real export. This indicates that as exchange rate rises (that is fall in value of local currency), this according to the result will lead to a significant rise in real export of the countries.

Trade openness also has significant direct impact on real export. The implication of the result is that trade openness has the tendency of encouraging real export in these countries. Again, the overall R-square is relatively moderate at 0.508. The independent variables explained about 50% variation sectors output. The within variation is nonetheless higher, explaining about 68% variation. The entire model is statistically significant at 5% level (with the F value is 6.67 and the probability value is 0.000.

To be able to test for cross-sectional dependence in the analysis, the fixed effect least square dummy variable LSDV estimates is also explored. The result is presented in table 4

Table 4: Fixed Effects (LSDV) Estimation Results for real export

Variables	Coefficient	Standard error
Constant	20.92583	18.86708
Dum 2	7.053684*	26.57949
Dum 3	-27.42567	14.57131
Foreign direct investment	9.47e-09	8.22e-09
Gross fixed capital formation	1.97e-09	3.06e-09
Labour	-1.44e-06	2.67e-06
Exchange rate	.0356863*	.0203853
Infrastructural development	-70.51997	73.23901
Trade openness	4.121715***	.6765057

Source: Authors Computation

Note: Standard errors in parentheses. R2 = 0.54(overall) F (8,152) =364.57***
* Statistical significance at 10%** statistical significance at 5%.** *statistical significance at 1%

The fixed effects LSDV results are presented in Table 4. The use of the fixed effects LSDV is justified by the need to examine the specific effects of the countries on our results by allowing the intercept to vary across the countries. Again, the bias of inconsistent estimator varnishes when T is large and N is small in the LSDV model. In our model T=21 and N=3. The dummies represent the individual intercept of the three countries. Their values are shown in the table together with their standard error values. The results show that one of the three intercepts (constant inclusive) is individually statistically significant. That is, the intercept values of one out of three countries are statistically different from zero. This shows that country-specific effect in our model is small. Notwithstanding, this may be attributed to the individual countries structural, operational and administrative set-up (see Olomola, 2007, Gujarati, 2007).

The LSDV fixed effects results also show that the parameter estimate of all the variables is the same as what we have under the fixed effect within results estimates. Also the LSDV model result is statistically significant at 1%. This is shown through the F statistics values.

5.0 Conclusion

The effects of FDI flow into Benin, Botswana and Kenya have been examined using panel dataset. It was found that during the period 1990 to 2010, there were direct relationships between real export and foreign direct investment in the three countries but the relationship is not significant. It can therefore be concluded that FDI inflows to African countries encourage export. The implication of the result is that both exchange rate and trade openness are very germane to the real export volume of these countries. However, as a form of policy implication, African countries should promote favorable exchange rates and encourage trade openness in order for FDI inflows to increase export growth.

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