Developing Country Studies www.iiste.org
ISSN 2224-607X (Paper) ISSN 2225-0565 (Online)
Vol 2, No.11, 2012

Determinants and Effects of Foreign Direct Investment in Ghana – Review of Literature

[1*]Justice G. Djokoto, Dept. of Agribusiness, Central University College, Accra, Ghana
[2]Gloria C. Dzeha, Dept. of Finance, Central University College, Accra, Ghana.
*Email of corresponding author: dgameli2002@gmail.com

Abstract

This paper reviewed papers published on foreign direct investment (FDI) on Ghana to determine the factors that gravitate FDI into Ghana, the effects of FDI on Ghana and identify the gaps that exist for further research. The literature used excluded long essays and thesis as well as working papers that have not been published in a journal. The resulting literature retrieved numbered 27, while 23 were subjected to detailed review. The review revealed a publication bias towards inward FDI, publishing in journals outside Ghana and a preponderance of use of time series data. Results of recent data tended to produce more statistically significant results than previous and shorter span data. Factors that determined inflow of FDI into Ghana are exchange rate, exchange rate volatility, real exchange rate, previous level of FDI, inflation, size of the economy, democracy and trade. FDI inflow benefited Ghana's economy through its effect on agricultural exports, firm productivity, industrial output, stock market and ultimately GDP and GDP growth. However, agricultural FDI negatively impacted food security. Studies on directional spillover effects of FDI in Ghana are non-existent and deserve investigation among other areas.

Key words: foreign direct investment, Ghana, determinants, effects, review.

1. Introduction

Immediately after independence in the 1960s, most African countries in a bid to protect local industries imposed trade restrictions and controls on capital. In recent years however, attention has been given to attraction of foreign direct investment (FDI) with policies that will whet the appetite of foreign firms. In Ghana for example, a legal instrument, Act 478 was promulgated in 1994 that aimed at reducing obstacles to and creating incentives to FDI (Cotton and Ramachandran, 2001). The incentives accompanying the law included: depreciation of the capital allowance of 75 % of capital expenditure incurred in the year of investment and in subsequent years, the free transferability of profits and dividends and foreign exchange retention accounts through which all foreign payments including dividends can be made. Others were exemption from payment of customs duties on machinery and plant for the establishment of mines and further relief for selected items for on-going mining projects, and the establishment of well-defined rules for dispute settlement. As a result FDI to Africa has been on the rise in recent years especially since the 1990s (Ndikumana, 2003; UNECA, 2006). FDI refers to an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor (UNCTAD, 2002). In the view of Rotjanapan (2005), FDI can also be defined as an investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy in an enterprise resident in another economy. FDI is thus constituted as equity capital, reinvested earnings and other capital (UNCTAD, 2008). The most distinctive features of FDI are transfer of resources, capital formation abroad and acquisition of control (Kindleberger, 1973 and Krugman and Obstfeld, 2009) .

The intent of African countries including Ghana to attract FDI stemmed from the benefits to be derived. According to de Mellor Jr., (1997), inward FDI can stimulate local investment by increasing domestic investment through links in the production chain when foreign firms buy locally made inputs or when foreign firms supply intermediate inputs to local firms. The foreign capital inflow augments the supply of funds for investment thus promoting capital formation in the host country. Also, inward FDI can increase the host country's export capacity causing the developing country to increase its foreign exchange earnings. Finally, FDI is also associated with new job opportunities and enhancement of technology transfer, and boosts overall economic growth in host countries.

In spite of these benefits, Amadou (2011) acknowledged the increased risks of financial crises or risks which are not observed in domestic markets, particularly foreign exchange rates risks through opening the domestic financial markets to international transactions. Also, the possibility of multinational firms raising the level of productivity and obliging their local competitors to leave some markets exists. Gerlach and Liu (2010) and Schoneveld, et al (2010) stated challenges arising from large-scale land acquisitions such as lack of transparency in land transfers, no consultation with local stakeholders, no recognition of their rights and locking of large tracts of land for up to

fifty years. Land transfers involved displacement of local smallholders and loss of grazing land for pastoralists, negative impacts on livelihoods, and no compensation. Vulnerable groups, such as women and migrants, are found to be most profoundly affected because of their relative inability in recovering lost livelihood resources. They also acknowledged instances of environmental damage arising from excessive water demand for large-scale production of crops such as oil palm and sugar in monocultures. Hallam (2011) documented limitation of biodiversity arising from those large-scale monocultures implemented by FDI firms. Concerns over highly mechanised production methods with limited employment creation; dependence on imported inputs and hence limited domestic multiplier effects; adverse environmental impacts such as chemical contamination, land degradation and depletion of water resources; and limited labour rights and poor working conditions have been further noted.

The importance of FDI has led to several academic publications on the subject. Many theories have been posited to explain diverse aspects of FDI. The studies have addressed single country and multi-country dimensions. This paper seeks to review papers published on the subject of FDI relating to Ghana in order to identify what is known about FDI on Ghana and outline the gaps that exist for further research.

As Ghana envisions attaining middle income status by 2015 which is the target year for the Millennium Development Goals (MDGs) the need for investments including FDI is important. FDI is expected to spur growth in GDP, which is the denominator in the budget deficit to GDP ratio indicator which should be maximised at 3% as one of the primary criteria for the West Africa Monterey Union (WAMU). Increasing GDP growth serves the dual purpose of the MDGs, and the WAMU criteria. Therefore identifying what is known and gaps that exists for further study is of utmost importance.

Following this introduction, the rest of the paper is presented in four sections. Section two examines theoretical and empirical literature relating to determinants and effects of FDI. The method of literature search and analyses of the same is captured in the third section. The fourth section discusses the FDI literature on Ghana. Section five concludes the paper with identification of additional research gaps.

2. Literature review

This review of literature identifies four theories; product cycle theory, internalisation and eclectic paradigm. Vernon (1966) described four stages of product cycle; innovation, growth, maturity and decline. During the first stage the transnational corporations (TNCs) create new innovative products for local consumption and export the surplus in order to serve also the foreign markets. The export will grow to the extent that necessitates establishment of plants in importing countries to support production. In this way production is subsequently shifted to developing countries when product standardisation and market saturation give rise to price competition and cost pressures. Investment in developing economies is seen as the best way to reduce cost.

Hymer (1976) provided an international dimension to an earlier work on the nature of the firm by Coase (1937). Hymer identified two reasons for firms undertaking FDI; moving above the competition and secondly the need to use the advantages which a firm possess in a particular activity to her advantage. In order to expand beyond the home country, a decision has to be made when faced with three options; produce and export, license production rights to a firm located in the foreign country and set up in a foreign country (that is undertake FDI). Licensing is disadvantageous because 1. it may result in a firm giving away valuable technological expertise to a potential foreign investor. 2. licensing does not give a firm the tight control over manufacturing, marketing, and strategy in a foreign country that may be required to maximise its profitability. 3. the fee received for licensing is not commensurate with the loss of control over manufacturing and marketing. 4. this FDI option is desirable when a firm's product is not a major driver of its competitive advantage rather than management, marketing, and manufacturing capabilities that produce those products. Such capabilities are often not amendable to licensing. Locating in a foreign country also has some disadvantages such as country risk, adjustment cost among others. It is only when these costs are less than the gains expected to be made that firms undertake FDI. Since these decisions are made by the firm, undertaking FDI is a firm level decision and not a capital market decision.

Dunning's eclectic paradigm is a fusion of three other theories that can be deduced from the theories of Dunning (1977) and Dunning (1988) about FDI. Dunning posits that firms undertake FDI in response to competitive advantages, namely; ownership, location and internationalisation. The ownership advantage captures intangible assets, which are, at least for a while exclusive possessions of the firm. These advantages may reflect in three specific areas; 1. possession of monopoly advantages in the form of privileged access to markets through ownership of natural limited resources, patents, trademarks; 2. technology and knowledge broadly defined so as to contain all forms of innovation activities; and 3. economies of large size such as economies of learning, economies of scale and scope and greater access to financial capital. The location variable takes cognisance of the advantages provided by benefits especially the more immobile these advantages are. Location advantages differentiate

countries in terms of destinations of FDI. These advantages are: 1. economic benefits that consist of quantitative and qualitative factors of production, costs of transport, telecommunications, market size and so on; 2. political advantages which may be common and specific government policies that affect FDI flows and 3. social advantages which includes distance between the home and foreign countries, cultural diversity, attitude towards strangers among others. Internationalisation offers a means of assessing different ways in which the company will exploit its powers from the sale of goods and services to various agreements that might be signed between the companies. Indeed, this piece within the *OLI* paradigm arises from the internationalisation theory. Thus each firm may have different levels of *O, L* and *I* and this will influence the decisions to be taken.

A number of domestic factors are important in attracting FDI to an economy. Autonomous increases in domestic money demand and increases in the domestic productivity of capital have been acknowledged by Ul-Haque et al (1997). Calvo, et al (1993) pointed out improvement in external creditor relations, adoption of sound fiscal and monetary policies and neighbourhood externalities as important. Others included macroeconomic performance, the investment environment, infrastructure and resources, and the quality of institutions.

Chuhan, et al (1996) identified domestic economic reforms in the 1990s as important in attracting FDI to developing countries in 1990s. Specifically, economic reforms such as privatisation of public enterprise, liberalisation of currency and capital accounts, coupled with a stable macroeconomic environment have improved credit worthiness and expanded investment opportunities. Basu and Srinivasan (2002) adduced political and macroeconomic stability, well-designed structural reforms, and natural resources as contributors to the increase in FDI in these countries. However, trade restriction and poor policy discourage FDI to Africa (Asiedu, 2002). Additionally, African countries tended to be less open than other emerging markets and were perceived as very risky and characterised by poor policy environment relative to other developing countries.

GDP growth rate and trade openness can be used to fuel the interest of foreign investors (Morisset, 2000). These were evidenced in Mozambique where wonderful results were achieved through opening the economy through trade liberalisation reform; launching an attractive privatisation programme; modernising mining and investment codes; adopting international agreements related to FDI; developing a few priority projects that have multiplier effects on other investment projects and mounting an image building effort with the participation of high profile political figures.

Asiedu (2002) identified return on investment, infrastructure development and openness to trade as relevant in influencing FDI to Africa. Specifically, higher marginal product of capital and better infrastructure did not drive FDI to SSA and, although openness to trade had a positive impact on FDI to SSA, the impact was lower than non-SSA countries. Bende-Nabende (2002) in a study using data on 19 SSA countries over the 1970-2000 showed that the most dominant long-run determinants of FDI in SSA were market growth, a less restrictive export-orientation strategy, the FDI policy liberalisation, real effective exchange rates, market size, and openness of the economy.

Openness to FDI, good infrastructure and institutional quality were important in explaining the performance of SSA FDIs in the world stage (Asiedu, 2004). Regional blocs such as the Southern African Development Community (SADC) were important in enhancing FDI flows to the region (Asiedu, 2006). This was possible via expanding the size of the market, promotion of political stability by restricting membership to countries with democratic political systems, as well as providing incentives for member countries to implement good policies through the threat of sanctions or the loss of access to the bloc for errant countries. Generous incentive packages such as tax holidays and exemptions were less effective in attracting FDI to Uganda and infrastructure and institutional bottlenecks acted as deterrents to FDI (Obwona, 2002). However conditions that enhanced FDI inflow included macroeconomic and political stability and policy consistency.

The effects of FDI on host countries include output and growth, employment and wages, balance of payment and trade flows. Others are productivity, technology transfer, training, inter-industry linkages, environment and market structure (Moosa, 2002).

Data from a set of developing countries supported the FDI-led growth hypothesis (Hansen and Rand, 2006). In a recent empirical investigation McCloud and Kumbhakar (2011) noted the existence of a heterogeneous relationship between FDI and economic growth across developing countries. They argued that, across countries, differences in institutional quality were correlated with heterogeneous absorptive capacities and hence a heterogeneous FDI–growth relationship. A substantial heterogeneity in the FDI–growth relationship was also noted. Controlling for certain measures of institutional quality reduced the degree of heterogeneity. The orthodox assumption of a homogeneous return to FDI in the existing empirical literature came into question and displaced from the rear to the fore the importance of specific aspects of institutional quality in the FDI–growth relationship.

Wang and Wong (2009) tested the robustness of the relationship between FDI and growth using data from 69 countries over 1970–1989 under two economic conditions; a sufficient level of human capital and well-developed financial markets. However, they noted that these two conditions could be fundamentally different catalysts for FDI to promote economic growth in the perspective of growth accounting. Specifically, FDI promotes capital growth only when a certain level of financial development is achieved. Also, FDI promotes productivity growth only when the host country reaches a threshold level of human capital. FDI caused economic growth in Portugal (Andraz & Rodrigiues, 2010). A similar result was reported by (Nguyen, 2011) for Malaysia and Korea. Tian, *et al*, (2004) and Sarkar and Lai (2009) provide other country empirical evidence on FDI effects on economic performance. Tian, et al (2004) investigated FDI inflows to regions of China. They noted that regions with higher FDI inflows experienced faster GDP per capita growth. This they explained was possible through technology updating. Sarkar and Lai (2009) in a firm level study showed that in India foreign investment (FI) in a firm significantly and positively increased the firm's output. In contrast to this finding, the firms with no FIs were found to be less productive than sectors with more FI compared to those firms in sectors with relatively smaller foreign presence. The results pointed to demonstrated positive spillover from foreign investment, particularly in industry sectors with more FI. Additionally, the study noted that the firms' predicted output was likely to decline with every percentage increase in output dispersion. Despite numerous studies confirming a positive relationship between FDI and economic growth, few studies state otherwise. For example, Wattanakul (2010) noted that both FDI and services liberalisation impacted growth negatively but in a statistically insignificant way in Thailand.

3. Methodology

Google scholar was first searched using the words 'foreign direct investment, Ghana' in titles with the command line: 'allintitle: Ghana "Foreign Direct Investment"'. This yielded 16 publications with abstracts. When citations were included this increased to 26. This is important as the citations could lead to published works that may not be indexed to Google scholar. FDI is a popular acronym of foreign direct investment. So this was searched for with Ghana thus: 'allintitle: Ghana "FDI"'. This search returned 7 papers with abstracts and 3 more without abstracts, which were citations. The papers with summaries were downloaded directly. Those that were not freely available were accessed alternatively. Those with only citations were traced and accessed. Other academic publishers including Wiley and Sons, Palgrave, Taylor & Francis and databases such as EBSCOhost, were searched. Other known Ghanaian business and economics journals but not included in Google scholar were also contacted. Further, those that were working papers and the likes that were subsequently published were eliminated from the list but the published versions were used. Unpublished theses were excluded. By reading the literature obtained, Ghana specific studies referenced or cited but not obtained from initial search was retrieved subsequently. Only the literature reviewed are captured in table 1 (column 1).

4. Results and Discussion

This section of results and discussions starts with profiling of the papers reviewed, continues with the determinants of FDI based on papers reviewed and concludes with effects of FDI on Ghana's economy.

4.1 Profile of papers reviewed

None of the papers examined FDI outflow rather FDI inflow. This unsurprising development arises from the recent development of outward FDI from developing countries. Moreover, owing to the preponderance of time series studies inward FDI papers are more apparent. Data on outward FDI for Ghana over a substantial period suitable for reliable time series investigations is currently not available at the UN system websites. Ghana's investment promotion agency GIPC does not collate data on outward FDI from Ghana. Nevertheless, alternative methods of obtaining data for outward FDI investigations for Ghanaian businesses will be interesting.

The focus of about half of the papers were on the whole economy. Eight papers focused on specific sectors namely; industry (Adenutsi, 2008) and agriculture (Djokoto, 2011; 2012a; 2012b; 2012c; 2012d and 2012e). With respect to the latter, the new oil find in Ghana may switch resources from agriculture which is still the largest employer in Ghana's economy (ISSER, 2007). The few papers giving attention to single and multiple sectors requires some attention as specific sector results may be relevant in formulating sector specific policies to be concentrated upon in attracting FDI. In respect of data type, time series studies were the majority (75%). Clearly, availability of data may be responsible. Whilst time series data on FDI into Ghana is available on UNCTADSTAT and World Banks's WDI, dating back to 1960s that for specific sectors is not available at those locations. In Ghana, time series data is available from September 1994. The FAO has however stated that it will in due course post FDI data for the agricultural sector for all countries (FAO, 2012). Another reason for the few primary/firm level data may be due to the cost of collection of such data. Following from the little use of primary/firm level data a corresponding number of papers used qualitative or univariate analyses. On the other hand, equal number of

papers of quantitative nature treated FDI as explained variable as well as an explanatory variable. It must be noted that about a quarter of the papers used Granger causality test, thus FDI was used as both explained and explanatory variable concurrently in those papers. Unequivocally, there is a publication bias as nine out of every ten papers on FDI on Ghana were published outside the country. Despite the cross country nature of the subject, it would be gratifying to see such papers, largely research papers instead of case studies and review papers published in local journals.

4.2 Determinants of FDI

Out of the 11 papers reviewed on determinants of FDI into Ghana (Table 2), only one used cross-sectional data. The measurement of the explanatory variables differed from those of the other 10 papers. Barthel et al (2011) concluded the number of employees capturing firm size, education level of managers and proportion of bank credit in working capital positively influenced foreign ownership. Explained in another way, firms with higher percentage of foreign ownership tended to have higher staff numbers, possess managers with higher education qualifications since the firms can afford to pay such; additionally, they tended to attract local bank credit to support working capital. The affinity of foreign owned companies for more highly qualified personnel and more staff is a pointer to the need for higher qualified persons for the job market. On the flipside this will create demand for graduates of the sprawling tertiary institutions in Ghana. The larger staff size employed by MNEs is a good omen to Ghana's large workforce and invariably a panacea to graduate unemployment.

In respect of the largely time series studies, a number of variables have been evidenced to explain inward FDI to Ghana's economy in line with other country empirical evidence. Natural resources have been noted to attract FDI (Basu & Srinivasan, 2002). There is no strong evidence to support this in the case of Ghana. Natural resources measured as uncultivated land to total agricultural land area though positively related to FDI inflow to agriculture, was statistically indistinguishable from zero. Exchange rate measured as nominal exchange rate and purchasing power parity exchange rate were negatively related to FDI inflow but statistically insignificant at 10% level. These results show that for Ghana, exchange rate does not strongly impact FDI inflow into agriculture. However, the volatility of exchange rate impacted strongly negatively on FDI inflow to the whole economy. This is in line with evidence for Uganda (Bende-Nabende, 2002). Policy makers need to direct efforts at a proactive foreign exchange policy that will smooth out foreign currency rates to reduce volatility. Building adequate reserves that will be used in a timely manner and diversifying foreign exchange sources are required.

The use of inflation was sparse in the papers reviewed. The couple of papers that used inflation (Djokoto, 2012c and Djokoto, 2012e) produced mixed results. Whilst inflation negatively impacted FDI inflow to the whole economy over the period 1970-2010, a positive relation was established for inflation and FDI inflow into agriculture over the period 1995:1 to 2010:4. It is instructive to note that the period of 1995 to 2010 was a period of relatively high inflation coupled with relatively high levels of FDI inflow into agriculture. This suggests that the agricultural economy of Ghana permits some level of inflation to co-exist with FDI inflow.

Economic theory makes case for some level of inflation to induce growth. The identification of the threshold and managing within the band is an important policy action requirement.

The size and growth of an economy is noted as a determinant of FDI inflow (Morisset 2000; Bende-Nabende, 2002 and Obwona, 2002). In the case of Ghana this is largely the case. Adeniyi et al (2011) and Djokoto (2012c) showed this as the case for the whole economy irrespective of how size was measured. The contrary was reported by Karikari (1992), Gyapong and Karikari (1999) and Tsikata et al (2000) using data earlier than 1990. Between 1990 and independence in 1957, Ghana's economy was small and did not show significant movements towards increase in size. Indeed, the 1970s and early 1980s witnessed periods of negative growth. These decreasing growths and the level of FDI would undoubtedly show a negative relation which is an exception. Tsikata et al (2000) explained that between 1970 and 1997 mining FDI dominated Ghana's FDI inflows. This did not depend on the size of the local economy since gold is largely an export product in Ghana. As recent data shows, economy size will engender increased FDI inflow. Therefore, increasing economy size will induce FDI inflow into Ghana. Ghana's oil discovery is expected to hike GDP growth. The transmission of this growth through the economy to induce growth in other sectors will be useful. In so doing, further growth will be witnessed. Growth in industries associated with oil production are expected to follow the oil find. All these will reinforce both growth and FDI inflow.

Three papers investigated the role of democracy in determining FDI. Tsikata et al (2000) and Nyarko et al (2011) measured democracy as a dummy variable; military regime as 0 and civilian government as 1. The coefficient was statistically indistinguishable from zero for the whole economy in the case of the latter. However, the former reported a contrary result. Measured as polity 4 variable which ranges from -10 to +10, democracy strongly

determined FDI inflow into agriculture between 1995 and 2010. This finding for Ghana is in line with Obwona (2002). Ghana has high democratic credentials and a beacon of hope in sub-Saharan Africa. Efforts at deepening democracy and consolidating gains made since the inception of the fourth republic in 1992 is a necessity.

Trade is known to be an important determinant of FDI inflow (Morisset 2000, Asiedu, 2002). The five papers that examined the role of trade established a positive relation between trade and FDI inflow, either to specific sectors or the whole economy. The measurement of the trade variable did not in any way change the relationships. However, the extent of the influence identified by the level of statistical significance showed mixed results. The coverage of the data; sector or whole economy did not account for the difference. Rather, the span of the data did. Data covering longer periods for trade tended to elicit statistically significant effects whilst those of relatively shorter spans though positive rendered the positive effects statistically indistinguishable from zero. This is to be expected as larger samples leads to higher degrees of freedom which in turn produces more efficient statistics such as the *t*-statistics. The positive relation between trade and FDI is in line with the OLI paradigm and the new trade theory. Export oriented FDI such as those in mining and oil, and agricultural export products such as GlobalGap, Fairtrade and Organic certified fruits and vegetables induce exports from Ghana. Incentives such as free duty on imported equipment and other resources for production will create demand for imports. Thus FDI and trade are linked. Opening up to trade across borders is essential for further attraction of resources for development. Increased positive trade balance should be aimed at though.

Two dummies, one capturing the establishment of investment promotion agency and the other policy distortion showed positive but statistically insignificant coefficients. This implies that the establishment of investment promotion agency did not strongly impact FDI inflow into Ghana. Also, policy distortions though detrimental have miniscule effect on FDI inflow. Admittedly, these findings for Ghana concur with Asiedu (2002) but deviate from those of Harding and Javocikr (2007).

Effects of FDI on Ghana's Economy

Thus far the results have shown that some factors cause FDI to gravitate into Ghana. On the other hand, the destination of FDI into Ghana is expected to impact on the economy. The papers surveyed used time series data, cross-sectional data and panel data. The panel and cross-sectional studies by Abor, et al (2008) and Abor (2010) investigated the impact of FDI on exports and firm productivity respectively (Table 3). Measuring FDI as percentage of foreign ownership of equity in a business entity, the results showed that foreign ownership in business positively impacted exports and firm productivity. This is in concert with de Mellor, Jr. (1997). As noted earlier, trade and FDI are interlinked. This increased efficiency will free resources to be used in other sectors of the economy. Thus efforts at promoting FDI have benefits for the economy.

Time series studies examined sectors and the whole economy. The results confirm a positive effect of FDI on the economy (e.g. Gyapong 1999; and Adeniyi et al 2012). Whilst FDI inflow to the whole economy positively impacted industrial output (Adenutsi, 2008), FDI into agriculture positively impacted agricultural exports (Djokoto, 2012b). Measuring food security as daily energy consumption and daily protein consumption, FDI negatively impacted food security (Djokoto, 2012a). The negative relation arose from the largely export orientation of FDI projects. The preponderance of positive effects of FDI on the individual sectors as well as the economy as a whole is encouraging. Largely, these benefits reflect in output measured as GDP. Aggregate measures tend to hide micro level occurrences. Beyond the macroeconomic indicators, efforts at addressing equity and income distribution among sectors and sections of society are relevant.

Other time series studies measured FDI as ratio of FDI inflow to GDP (e.g. Frimpong and Oteng-Abayie, 2008) or ratio of FDI inflow to gross fixed capital formation (e. g. Karikari, 1992) and data were sourced from the UN system. The main targets of FDI impact were output and output growth. In the case of output, this was measured as GDP whilst economic growth was measured as GDP growth. Irrespective of these forms of measurement and the data used, FDI was observed to positively impact the economy (both size and growth). These results suggest that the pursuit of FDI attraction to ultimately boost Ghana's economy as a whole is worthwhile. The findings corroborate other country studies evidenced by Sarkar and Lai (2009) for India; Nguyen (2011) for Malaysia and Korea and McCloud and Khumbaker (2011) for developing countries.

Conclusions and research gaps

The review of papers showed that factors that cause FDI to gravitate to Ghana include exchange rate volatility, real exchange rate, previous FDI level, inflation, size of the economy, democracy and trade. The establishment of Ghana's investment promotion agency, GIPC and the other policy distortion showed positive but statistically insignificant coefficients; implying that the establishment of GIPC did not strongly impact FDI inflow into Ghana.

FDI inflow culminated ultimately into GDP growth which benefited Ghana's economy through its effect on agricultural exports, firm productivity, industrial output, stock market among others, although agricultural FDI negatively impacted food security.

Further research is warranted into spillover effects of FDI in Ghana which are non-existent and deserve investigation. Again it was observed that most of the publication biased towards inward FDI. Additionally, most papers were published in journals outside Ghana. Also, there is a preponderance of use of time series data. It will be revealing if further research is directed at assessing FDI outflows and its implication on our economy. Despite unavailable data from UNCTADSTAT for Ghana in order to build a sufficiently long series, alternative sources and possibly cross-sectional data sources will be useful. Generally, limited cross-sectional and panel data works means that attention should be accorded this. Publishing of papers on FDI on Ghana in local journals deserves attention.

References

Abdulai, I. (2005), "Sectoral analysis of foreign direct investment in Ghana". *Working Paper*, WP/BOG-2005/15. Bank of Ghana, Accra.

Abor, J. (2010), "Foreign direct investment and firm productivity: Evidence from firm-level data", *Global Business and Economics Review*, 12 (4), pp. 267 – 285.

Abor, J., Adjasi, C. K. D. and Hayford, M-C. (2008), "How does foreign direct investment affect the export decisions of firms in Ghana?" *Africa Development Review*, 20 (3), pp. 446-465.

Adam, A. M. and Tweneboah, G. (2009), "Foreign direct investment and stock market development: Ghana's evidence", *International Research Journal of Finance and Economics*, 26, 178-185.

Adeniyi, O., Omisakin, O., Egwaikhide, F. O. and Oyinlola, A. (2012), "Foreign direct investment, economic growth and financial sector development in small open developing economies". *Economic Analysis & Policy*, 42 (1), 105-127.

Adenutsi, D. E. (2008), "Effects of trade openness and foreign direct investment on industrial performance in Ghana", *Journal of Business Research*, 2 (1&2), 71-89.

Agbola, F. W. (2013), "Does human capital constrain the impact of foreign direct investment and remittances on economic growth in Ghana?" *Applied Economics*, 45 (23), 2853-2862.

Amadou, A. (2011), "The effect of foreign capital on domestic investment in Togo", *International Journal of Economics and Finance*, 3 (5), 223-226.

Andraz, J. M., & Rodrigiues, P. M. M. (2010), "What causes economic growth in Portugal: exports or inward FDI?" *Journal of Economic Studies* 37 (3), 267-287.

Arbenser, L. (2004), "A general equilibrium analysis of inward FDI on Ghana: The role of c complementary policies", *Working paper 69/2004.* Humboldt University Berlin, Department Agricultural Economics.

Asante, Y. (2006), "Foreign direct investment flows to Ghana. foreign direct investment in sub-Saharan Africa: Origins, targets, impact and potential". Chapter 6. Ajayi, S. I. (Ed). *African Economic Research Consortium*

Asiedu, E. (2002), "On the determinants of foreign direct investment to developing countries: Is Africa different?" *World Development*, 30 (1), 107-119.

Asiedu, E. (2004), "Policy reform and foreign direct investment in Africa: Absolute progress but relative decline", *Development Policy Review*, 22 (1), 41-48.

Asiedu, E. (2006), "Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political stability", *World Economy*, 29 (1), 63-77.

Barthel, F., Busse, M. and Osei, R. (2011), "The characteristics and determinants of FDI in Ghana". *European Journal of Development Research* 23, 389-408.

Basu, A. & Srinivasan, K. (2002), "Foreign direct investment in Africa: Some case studies", *IMF Working Paper* 02/61, IMF, Washington, DC.

Bende-Nabende, A. (2002), "Foreign direct investment determinants in sub-Saharan Africa: A co-integration analysis", *Economics Bulletin*, 6 (4), 1-19.

Coase, R. H. (1937). "The nature of the firm". *Economica,* 4 (16), 386–405.

Cotton, L., & Ramachandran, V. (2001), Foreign direct investment in emerging economies: Lessons from sub-Saharan Africa. *Discussion Paper* No. 2001/82. World institute for development economics research, United Nations University.

Calvo, G. A., Leiderman, L. & Reinhart, C. M. (1993), "Inflows of capital to developing countries in the 1990s", *The Journal of Economic Perspectives*, 10 (2), 123-139.

Chuhan, P., Claessens, S. & Mamingi, N. (1996), "International capital flows: Do short-term investment and direct investment differ?" The World Bank, Washington, DC.

de Mello Jr., L. R. (1997), "Foreign direct investment in developing countries and growth: A selective survey". *Journal of Development Studies,* 34 (1), 1-34.

Djokoto, J. G. (2011), "Inward foreign direct investment flows, growth, and agriculture in Ghana: A Granger causal analyses". *International Journal of Economics and Finance,* 3 (6), 188-197.

Djokoto, J. G. (2012a), "Effects of foreign direct investment inflows into agriculture on food security in Ghana". *Journal of Economics and Sustainable Development*, 3 (2), 81-92.

Djokoto, J. G. (2012b), "Does causal relationships exist between external trade and foreign direct investment flow to agriculture in Ghana?" *International Journal of Business and Management*, 7 (1), 179-193.

Djokoto, J. G. (2012c), "The effect of investment promotion on foreign direct investment inflow into Ghana". *International Business Research*, 5 (3), 46-57.

Djokoto, J. G. (2012d), "Characteristics of foreign direct investment flow into agriculture in Ghana". *International Journal of Technology and Management Research,* 1 (1), 19-27.

Djokoto, J. G. (2012e), "An investigation of the determinants of inward foreign direct investment flow into Ghana's agricultural sector", *Pentvars Business Journal*, 6 (1), 19-37.

Dunning, J. H. (1977), Trade, location of economic activity and MNE: a search for an eclectic approach. In: Ohlin, B. (Ed.). The international allocation of economic activity. Macmillan, London, pp. 395–418.

Dunning, J. H. (1988), The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, 19 (1), 1-31.

Eshun, P. A. and Jellicoe, S.A. (2012), "The impact of foreign direct investment on the development of the Ghanaian mineral industry". *Asian Journal of Business and Management Sciences,* 1 (1), 148-167.

FAO (2012), FAOSTAT, Food and agriculture organisation, (FAO) website: http://faostat3.fao.org/home/index.html#DOWNLOAD whilst there click on 'investment'.

Frimpong, S. K. (2012), "Research on relationship between China and Ghana: Trade and foreign direct investment (FDI)", *Journal of Economics and Sustainable Development,* 3 (7), 51-61.

Frimpong, J. M. and Oteng-Abayie, E. F. (2008), "Bivariate causality analysis between FDI inflows and economic Growth in Ghana", *International Research Journal of Finance and Economics,* 15, 103-112.

Gerlach, A. & Liu, P. (2010), Resource-seeking foreign direct investments in Africa: A review of country case studies. Trade policy research working paper. Rome: Food and Agriculture Organization of the United Nations.

Gyapong, A. O. & Karikari, J. A. (1999), "Direct foreign investment strategies and economic performance in Ghana and Ivory Coast". *Journal of Economic Development* 24 (1), 133-147.

Hallam, D. (2011), "International investment in developing country agriculture—Issues and challenges", *Food Security*, 3 (Suppl)1, S91–S98.

Hansen, H., & Rand, J. (2006), "On the causal links between FDI and growth in developing countries", *The World Economy*, 29 (1), 21-41.

Harding, T., & Javorcikr, B. S. (2007), "Developing economies and international investors: Do investment promotion agencies bring them together?" *Policy Research Working Paper 4339.* The World Bank Development Research Group, Trade Team, August.

Harvey, S. K. & Abor, J. (2008), "Foreign direct investment and employment: host country experience". *Macroeconomics and Finance in Emerging Market Economies* 2(1), 213-225.

Harvey, S. K. & Abor, J. (2009), "Foreign direct investment in the Ghanaian manufacturing sector". *Global Business and Economics Review*, 11 (2), 180-197.

Hymer, S. H. (1976), The international operation of national firms: A Study of direct foreign investment, Cambridge, MA: MIT Press.

ISSER (2007), *The State of the Ghanaian Economy*. Institute of Statistical, Social and Economic Research, Legon, Accra.

Jansik, C., (2009), "Geographical aspects of food industry FDI in the CEE countries". *EuroChoices* 8 (1), 46–51.

Karikari, J. A. (1992), "Causality between direct foreign investment and economic output in Ghana". *Journal of Economic Development* 17 (1), pp. 7-17.

Kindleberger (1973), *International Economics*, 5th Edition. (Homewood, Illinois: Richard. D. Irwin). p. 246.

Krugman, P., & Obstfeld, M. (2009), I*nternational Economics Theory and Policy*, (8th ed.). Pearson Addison Wesley, USA.

Kyereboah-Coleman & Agyire-Tettey (2006), "Effect of exchange-rate volatility on foreign direct investment in Sub-Saharan Africa The case of Ghana", *The Journal of Risk Finance,* 9 (1), 52-70.

McCloud, N. & Kumbhakar, S. C. (2011), Institutions, foreign direct investment and growth: a hierarchical Bayesian approach", *Journal of the Royal Statistical Society:* Series A.

Mmieh, F. & Owusu-Frimpong, N. (2004), "State policies and the challenges in attracting foreign direct investment: a review of the Ghana experience". *Thunderbird International Business Review*, 46 (5), 575–599.

Moosa, I. A. (2002), Foreign direct investment; Theory, evidence and practice. Palgrave, Houndsmills, Basingstoke, Hampshire, RG21 6XS. P. 69.

Morisset, J. (2003), "Does a country need a promotion agency to attract foreign direct investment? A small analytical model applied to 58 countries", *World Bank Policy Research Working Paper* no. 3028.

Ndikumana, L. (2003), Capital flows, capital account regimes, and foreign exchange rate regimes in Africa, in: United Nations Conference on Trade and Development (UNCTAD) Management of capital flows: Comparative experiences and implications for Africa, UNCTAD, Geneva, pp. 313-384.

Nguyen, H. T. (2011), Exports, imports, FDI and economic growth. Working Paper No. 11-03. Discussion papers in economics, Department of Economics, University of Colorado at Boulder, Boulder, Colorado 80309.

Nyarko, P. A., Nketiah-Amponsah, E. and Barnor, C. (2011), Effects of exchange rate regimes on FDI inflows in Ghana". *International Journal of Economics and Finance*, 3 (3), 277-286.

Obwona, M. (2002), Macroeconomic environment and tax policy in Uganda. Report developed for the Taxation, aid and Democracy.

Rotjanapan, A. (2005), *Topics in foreign investment*, The University of Kansas.

Ul Haque, N., Mathieson, D. & Sharma, S. (1997), "Causes of capital inflows and policy responses to them", *Finance and Development*, 34 (1), pp. 3-6.

Sarkar, S. & Lai, Yu-Cheng. (2009), Foreign direct investment, spillovers and output dispersion - The case of India", *International Journal of Information and Management Sciences*. 20, 491-503.

Schoneveld, G. C., German, L. A. and Nutakor, E. (2010), "Land-based investments for rural development? A grounded analysis of the local impacts of biofuel feedstock plantations in Ghana", *Ecology and Society* 16(4), 10.

Tang D. and Gyasi, K. B. (2011), "China – Africa foreign trade policies: the impact of China's foreign direct investment (FDI) flow on employment of Ghana", *Energy Procedia* 16, (A), 553-557.

Tian, X., Lin, S. & Lo, V. I. (2004), "Foreign direct investment and economic performance in transition economies: evidence from China". *Post-Communist Economies.* 6 (4), 497-510.

Tsikita, G. K., Asante, Y. and Gyasi, E. M. (2000), Determinants of foreign direct investment in Ghana. Overseas Development Institute.

Ul Haque, N., Mathieson, D. & Sharma, S. (1997), "Causes of capital inflows and policy responses to them", *Finance and Development*, 34 (1), 3-6.

UNECA (2006), Economic report on Africa: Capital flows and development financing in Africa. United Nations Economic Commission for Africa. UNECA, Addis Ababa.

UNCTAD (2002), Foreign Direct Investment Statistics

UNCTAD (2008), United Nations Conference on Trade and Development. Foreign direct investment: Definitions and sources. Available at: http://www.unctad.org/Templates /Page.asp?intItemID=3146&lang=1

Vernon, R. (1966),” International investment and international trade in the product cycle”, *Quarterly Journal of Economics*, 80 (2), 190-207.

Wang, M. & Wong, M. C. S. (2009), “Foreign direct investment and economic growth: The growth accounting perspective”, *Economic Inquiry*, 47, 701–710.

Wattanakul, T. (2010), Thailand’s openness and implications for economic and trade policy: An Econometric Study. Doctoral thesis submitted to Centre for Strategic Economic Studies, Faculty of Business and Law, Victoria University, Melbourne.

Table 1. Profile of FDI Research on Ghana

Publication	Direction		Coverage			Data type/ source		Analyses			Where published			Nature of paper		
	In-ward	Out-ward	Whole Economy	Uni-sec-toral	Multi-sec-toral	Primary/ micro level	Secondary/ macro level	Qualitative / Univariate	Quantitative, FDI Indepen-dent	Quantitative, FDI Depen-dent	Ghana	Africa but not Ghana	Outside Africa	Re-search	Re-view	Cases
Karikari (1992)	▪		▪				▪		▪	▪			▪	▪		
Gyapong & Karikari (1999)	▪		▪				▪		▪	▪			▪	▪		
Tsikata et al (2000)	▪		▪			▪	▪	▪		▪			▪	▪		
Arbenser (2004)	▪		▪				▪		▪				▪	▪		
Mmieh & Owusu-Frimpong (2004)	▪		▪				▪	▪					▪		▪	
Abdulai (2005)	▪				▪		▪	▪			▪			▪		
Asante (2006)	▪		▪				▪	▪				▪		▪		
Kyereboah-Coleman & Agyire-Tettey (2006)	▪		▪				▪			▪			▪	▪		
Abor et al (2008)	▪				▪	▪			▪			▪		▪		
Adenutsi (2008)	▪			▪			▪			▪		▪		▪		
Frimpong & Oteng-Abayie (2008)	▪		▪				▪		▪	▪			▪	▪		
Harvey & Abor (2008)	▪		▪				▪		▪				▪	▪		
Adam & Tweneboah (2009)	▪		▪				▪		▪				▪	▪		
Harvey & Abor (2009)	▪		▪			▪				▪			▪	▪		
Abor (2010)	▪				▪	▪			▪				▪	▪		
Barthel, *et al*, (2011)	▪				▪	▪				▪			▪	▪		
Djokoto (2011)	▪			▪			▪		▪	▪			▪	▪		
Nyarko, *et al*, (2011)	▪		▪				▪			▪			▪	▪		
Tang & Gyasi (2011)	▪				▪	▪		▪					▪	▪		
Adeniyi *et al* (2012)	▪		▪				▪		▪	▪		▪		▪		
Djokoto (2012a)	▪			▪			▪		▪				▪	▪		
Djokoto (2012b)	▪			▪			▪		▪	▪			▪	▪		
Djokoto (2012c)	▪			▪			▪			▪			▪	▪		
Djokoto (2012d)	▪			▪		▪		▪			▪			▪		
Djokoto (2012e)	▪			▪			▪			▪	▪			▪		
Eshun & Jellicoe (2012)	▪			▪		▪		▪					▪	▪		
Frimpong (2012)	▪		▪				▪	▪					▪	▪		
Agbola (2013)	▪		▪				▪		▪				▪	▪		
Count /Percentage	28/100	0/0	15/54	8/29	5/18	8/29	21/75	8/29	13/46	14/50	3/11	4/14	21/75	27/96	1/4	0/0

Table 2. Determinants of FDI inflow into Ghana

Author(year)	Definition of FDI /data period	Independent variables (Definition and sign)													
		Natural resources	FDI	Exchange Rate	Inflation	Economy Size	Democracy	Trade	Dummy	Trend	Finan-cial dev.	Firm size	Manager education	Finance Access	Bank credit
Karikari (1992)	FDI inflow 1961-1988					Nominal GDP, -[b]									
Gyapong & Karikari (1999)	FDI inflow 1957-1980					Nominal GDP, -[b]									
Tsikata *et al* (2000)	Not defined, 1970-1997		1yr lag FDI, +[b]				Military=0, Civilian 1, +[b]	X/GDP, +[b]	Political Instability, +						
Kyereboah-Coleman & Agyire-Tettey (2006)	FDI inflow in 1995 prices 1970-2002		2 yr lag of FDI, +[b]	Volatility, -[b], REXR, -[b]		Nominal GDP per capita, -[a]		X+M)/ GDP +[a]							
Frimpong & Oteng-Abayie (2008)	FDI to GDP 1970-2002					Nominal GDP, +[a]									
Barthel, *et al*, (2011)[e]	>10% foreign ownership in firm											No. of Employees, +	Manager education, +	Ease of obtaining credit, -	% of bank credit in working capital,+
Nyarko, *et al*, (2011)	FDI to GDP 1970-2008		1 yr lag, FDI / GDP, +[b]				Military=0, Civilian 1, +[b]		Policy distortion, +[a]	Time, +[a]					
Djokoto (2011)	FDI inflow to value added Ag. ,1996-2008					Real Ag GDP growth, +[a]									
Adeniyi *et al* (2012)	FDI inflow (UNCTAD)		2 yr lag, FDI-[d]			Real GDP growth, +[d]					Credit to private sector, 0				
Djokoto (2012b)	FDI inflow to Ag value added 1966-2010							Ag. Export value, +[b]							
Djokoto (2012c)[d]	FDI inflow (UNCTAD) 1970-2008			PPPER[c], -[a]	Growth of CPI, -[b]	Nominal GDP per capita, +[b]		(X+M)/GDP +[b]	GIPC, +[a]						
Djokoto (2012e)	FDI inflows (GIPC) 1995:1-2010:4	Uncultivated Ag land area, +[a]	1 yr lag of Ag, FDI, +[b]	Nominal exchange rate, -[a]	Growth of CPI, +[b]		Polity 4, +[b]	Ag. Trade openness, +[a]							

a – variable not significant at 10% level of significance. b - variable significant at least 10% level of significance. c - PPPER is purchasing power parity exchange rate. d. – results of long run estimates.

Table 3. Effects of FDI on Ghana's economy

Author (Year)	Dependent variable	Definition of FDI	(Sign) Magnitude	Period
Karikari (1992)	GDP	FDI as percentage of gross fixed capital formation (IFS)[a]	-	1961-1988
Gyapong & Karikari (1999)	GDP	FDI as percentage of gross fixed capital formation (IFS)	+***	1960-1980
Arbenser (2004)	Economic growth	FDI inflow	+***	unknown[1]
Frimpong & Oteng-Abayie (2008)	GDP growth	FDI to GDP (WDI)[b]	+***	1984-2002
			0	1970-2002
Abor et al (2008)	exports	Percentage of foreign ownership	+*	1991-2000
Adenutsi (2008)	Industrial output	FDI to GDP (WDI)	+**	1883-2006
Adam & Tweneboah (2009)	Stock market capitalisation divided by GDP	FDI inflow minus outflow (UNCTADSTAT)[c]	+*	1991:1 - 2006:4
Abor (2010)	Firm productivity	Percentage of foreign ownership	+**	
Djokoto (2011)	Agricultural growth	Cash brought in by foreign investors	-	1966-2008
Adeniyi *et al* (2012)	Credit to private sector per GDP	FDI to GDP (WDI)	-**	1970-2005
	Real GDP growth rate	FDI to GDP (WDI)	+0	1970-2005
Djokoto (2012a)	Daily energy consumption	Cash brought in by foreign investors (GIPC)[d] divided by agricultural GDP (UNSTAT)[f]	-*	1995-2007
	Daily protein consumption		-***	
Djokoto (2012b)	Agricultural imports	Cash brought in by foreign investors (GIPC)	-	1961-2008
	Agricultural exports		+***	
Agbola (2013)	Economic growth	FDI to GDP (WDI)	+***	1965-2008

[1]Not apparent from study. [a]IFS: International Financial Statistics of IMF, [b]Not apparent from the paper. [c]WDI: World Development Indicators of the World Bank; [d] UNCTADSTAT: United Nations conference on trade and development database; [e]GIPC: Ghana Investment Promotion Centre; [f]UNSTAT: United Nations Statistics Database.

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage: http://www.iiste.org

CALL FOR PAPERS

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. There's no deadline for submission. **Prospective authors of IISTE journals can find the submission instruction on the following page:** http://www.iiste.org/Journals/

The IISTE editorial team promises to the review and publish all the qualified submissions in a **fast** manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request from readers and authors.

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar