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Abstract

The use of location incentives for in-country dispersion of foreign direct investment (FDI) has become popular among countries in recent times in spite of the lack of consensus of its effectiveness in the literature. Location incentives are also common in Ghana. This study, therefore, explores the effect of location incentive as a tool for influencing the location of FDI away from the Greater Accra region to the remaining nine regions of Ghana, particularly, the three northern regions, Upper East region and Upper West region and Northern region. Using the Ghana Investment Promotion Centre data set from 1994 to 2015 and employing trend analysis, the results reveal that there is no relationship between location incentives and regional location of FDI. The study recommends that government should provide social and economic infrastructure in the northern part of Ghana so as to make the area attractive to foreign investors.

Key words: Location incentives, Foreign Direct Investment, Regional Distribution, Ghana
1.0 Introduction

The use of location incentives as in-country dispersion of foreign direct investment (FDI) has become popular among countries in recent times in spite of the lack of consensus of its effectiveness in the literature (ActionAid, Ghana, 2014; UNCTAD, 2000). In particular, both theoretical and empirical literature emphasis access to vibrant market, specialized labour (Audretsch & Feldman, 1996), availability of transportation infrastructure (Guimera, Moses, Turtschi & Amaral, 2005) and agglomeration effect (Coughlin, Terza & Arromdee, 1990; Cheng & Kwan, 2000; He, Wei, & Xie, 2008) and availability of resource as the critical factors that investors consider in deciding where in a country to locate instead of tax incentives. However, in the cases footloose, export-oriented investors, tax incentives can be a major factor in their investment location decision (UNCTAD, 2000).

Location incentives are any concessions offered by government to lessen the tax burden of enterprises in order to induce them to invest in particular projects, sectors, or regions in the host country (UNCTAD, 2000). Location incentives usually come in the form of full or partial tax holidays, tax reductions, accelerated allowance and export incentives (UNCTAD, 2000). In the context of this study, location incentives mean government imposing distinctly different corporate tax rates in different regions of the country.

Investments in the Ghanaian economy have been concentrated in the Greater Accra with Tema, Accra being the preferred destinations. This is because the Greater Accra region is the most well endowed region in the country in terms of availability of economic and social infrastructure, supply of specialised labour, vibrancy of market and a host of other factors. After the Greater Accra region, comes the Ashanti region, Central region, Western region and Eastern region. The remaining six regions of Brong Ahafo, Volta, Eastern, Northern, Upper East and Upper West are less endowed regions and so are home to very few investments. Among the less endowed regions, the Northern region, Upper East region, and the Upper West region are the least recipients of investments because they are isolated, they lack infrastructure, they have high poverty rates and they are prone to conflict.
The Government of Ghana has in addition to enacting a new investment code and hence liberalizing the investment climate to attract more FDI into the country (Laryea, 2005), made extensive use of location incentives to ensure equitable regional distribution of the foreign investments so attracted. These incentives are provided for in the Ghana Investment Promotion Centre Act 478 (now replaced by Act 865 of 2013) and expressed in the form of tax rebate for investment as follows: Manufacturing companies located in Accra and Tema attract 25 per cent corporate tax rate and any company located in all other regional capitals attracted 18.75 per cent. Firms established outside regional capitals attract 12.50 per cent corporate tax rate. In addition, agro processing companies located in Accra and Tema attract 20 per cent corporate tax rate and those located in other regional capitals except Temale, Bolgatanga and Wa attract 10 per cent corporate tax rate. Firms located in Northern, Upper East and Upper West regions attract 0 per cent corporate tax rate and those outside regional capitals also attracted 0 per cent corporate tax rate (MOFeP, 2006).

The rationale for these incentives is therefore to encourage manufacturing and agro-processing companies to be equitably distributed among the regions of Ghana, particularly, the Northern region, Upper East region and Upper West region. This is in line with the government’s policy of achieving regional balance in economic growth and development, which among other things aims at reducing rural unemployment and curtail urban-rural drift (MOFeP, 2006).

The legitimate question at this juncture is; has the objective for introducing location incentives in Ghana been achieved? This paper sought to investigate this question. Specifically, the study examined first, the extent of disparity in the regional distribution of FDI projects in Ghana. Second, the study explored the association between location incentive and regional distribution of FDI in Ghana. The results indicate that there is no association between location incentives and regional distribution of FDI and that the distribution of FDI is still over concentrated in the Greater Accra region with the three regions of Northern region, Upper East region and Upper West region, receiving virtually no FDI.
The rest of the paper is organized as follows: the next section considers a review of related literature. Next, the methodology employed for the study is discussed and this is followed by the results and discussion. Finally, the conclusion and recommendations of the study are presented.

2.0 Review of related Literature

This study is on effect of location incentives on the regional location of FDI in Ghana. The extant literature on regional location of FDI has its roots in economic geography. According to this strand of the literature the factors that determine the location of a firm in a particular region of a country encompass all the factor endowments like capital and labour and natural resources that confer comparative advantage on the firm. Other characteristics that have received attention in the literature are increasing returns external to the firm but internal to the territory. Marshall (1920) identified three types of external economies, namely, specialized labour, specific inputs and technological spillovers as being the cause of geographical concentration of firms. In Marshall’s view, the localization of an industry creates market for specialized labour that benefits the firms and labour alike. Similarly, the creation of a large market because of the location will, as a result, bring into being a large number of suppliers of specialized inputs. Clearly, market size is important in the springing up of complementary activities that create backward and forward linkages between firms. Finally, technological advancements that take place in the location benefits all the firms through technological spillovers.

Recent contributions to the literature on the location of FDI within a host country have concentrated on aspects of Marshall’s original idea. For instance, Krugman (1991) argues that factors like availability of labour or other inputs are more important in explaining localization of industry than technological spillovers. He explains this to mean that driven by scale economies, a firm will locate where demand is highest and the convenience of input supply is maximized. Thus, it is the interaction between transport costs, scale economies and demand that determines spatial location. Audretsch (1998), on the other hand contends that technological spillovers is the main factor influencing a farm’s choice of a location. The author contends that cultural differences between regions and the underlying structure of each region determine the differences in their innovative activities.
The new economic geography literature stresses on common elements such as increasing returns, transport costs, congestion costs and market access as the main drivers of the choice of location by firms. The argument is that as these elements interact, firms will be attracted to one location or they will become dispersed in space depending on whether the resulting forces are centripetal or centrifugal. Very prominent among this category of proponents are Fujita, Krugman, and Venables (1999) who identified the centripetal forces leading to concentration of firms in one location as backward and forward linkages, existence of a large market, and knowledge spillovers. For the factors that will lead to the dispersal in space of firms (that is centrifugal factors), they identified immobile factors, and congestion diseconomies.

Another strand of the new economic geography singles out information asymmetry as the major cause of concentration of firms in a particular location. The contention is that because of the high cost of obtaining information and business uncertainty, firms will location where information cost is lowest and business uncertainty is reduced (Mariotti & Priscitello, 1995; He, 2002). He (2002) for example indicates that regions where communication infrastructure, administrative institutions and business services are readily accessible for FDI, coastal regions with major ports that are open to international markets, areas with previous foreign investment and cities implementing policies that encourage foreign investment will have low information costs and as a result attract more FDI.

There are quite a number of empirical studies on regional location of FDI. However, the reviewed ones have been found to be relevant to the current study. Gonchar and Marek (2014) explored the factors that influence regional distribution of FDI in Russia using plant-level data. They conclude that the distribution of FDI in Russian regions depends on market access, availability of natural resources and labour cost. In a related study, Iwasaki and Suganuma (2005) investigate the regional distribution of FDI in Russia using a panel data for the period 1996-2003. The results indicate that there are disparities in the regional distribution of FDI in Russia but a clear geographical pattern could not be observed. They also find that resource endowments, market factors and social development factors, climatic conditions and regional incentives explain regional location of FDI. In their study for the UK, Hill and Munday (1992) find financial incentives and access to markets as important determinants of regional distribution of new FDI projects and jobs.
In a cross sectional study of foreign manufacturing investment in Spain, Pelegrin (2003) finds that agglomeration factors such as manufacturing agglomeration, concentration of R&D activities and the availability of skilled labour drive regional FDI distribution but congestion costs discourages locational of FDI in a particular location. Coughlin, Terza and Arromdee (1987), on the other hand, find market, manufacturing density, characteristics of the labour market, transportation infrastructure to positively influence regional distribution of FDI in the USA. But the authors find taxation to have a negative effect on regional distribution of FDI.

Woodward (1992) used firm-level data set of 540 new Japanese manufacturing plants to examine the locational determinants of Japanese manufacturing start-ups in the USA. Using conditional logit estimation, he found out that Japanese investors preferred states with strong markets and low unionization rates but the impact of taxation was mixed. At the sub-state level, the author found that Japanese investors avoided less developed (poor) areas of the county but selected counties characterized by manufacturing agglomeration, low unemployment rates and poverty rates, and concentration of educated, productive workers. In the automotive industry, Japanese investors avoided counties with high black population, and unemployment rates. Interstate highway connections are important when plants are constructed in the rural and semi-rural areas.

Using a panel of 68 Russian regions over the period 2000-2004, and the system GMM, Buccellato and Santangelo (2009) explored the effect of spatial factors in influencing the distribution of FDI across Russian regions. The authors found that agglomeration and remoteness factors play a significant role in determining FDI inflows towards Russia. In a similar panel estimation, Van Parys and James (2009) find that the effect of tax incentives on the location decision of investors increase in countries with strong investment climate than those with weak investment climate. They conclude that countries with weak investment climate must concentrate on improving on their investment climates instead of reducing taxes.

There is a dearth of studies on the effect of location incentives on regional distribution of FDI in Ghana. The only related studies the author has sighted are by Koomson (1997); Boateng and Glaister (1999) and ActionAid, Ghana (2014). Koomson (1997) conducted a field survey to investigate the effect of tax incentives on the spatial distribution of private manufacturing firms in Accra and the remaining nine regions of Ghana using the before and after the introduction of the tax incentive policy. The survey results indicated that tax incentives played marginal role in
influencing the location of manufacturing firms in the nine regions other than Accra. However, accessibility to market areas, inputs and materials and investors own decisions were found to influence the location of private industries in the hinterlands. Another study by Boateng and Glaister (1999) did a trend analysis of the patterns of FDI and the role of government in attracting FDI in Ghana. The ActionAid, Ghana (2014) as part of a study on investment incentives in Ghana find that location incentives have minimal effect on the quantum and direction of investments within the country, suggesting that tax incentives are not the sole determinants of investment flow.

The current study is different from all the other studies that have been reviewed because it employs trend analysis to test the efficacy of a specific policy that is currently being implemented in Ghana. It is however, to some extent similar to the ActionAid study in that both studies used the GIPC data set and trend analysis. It is worthy to note, however, that the current study is different from the ActionAid study because it employs a longer dataset, that is, from 1994 to 2015.

3.0 Data Sources

The data for the study are from secondary sources. They are annual FDI regional data from the Ghana Investment Promotion Centre (GIPC) and location incentives obtained from GIPC Act 478 (now replaced by Act 865 of 2013).

4.0 Methodology

The study employed trend analysis of secondary data from the GIPC. To answer the first objective of the study, we present a trend analysis of the total number of FDI projects recorded by each region from 1999 to 2015. In addition, a sectoral distribution of the projects is presented to support the earlier presentation. In answering the second objective, GIPC data from 2005 to 2015Q3 was used. This was done to explore the relationship between the number of FDI the regions received and the location incentives. In particular, the average number of FDI projects of the Greater Accra region and its average corporate tax rate represented in the form of a bar chart was compared with that of all the remaining nine regions. A second comparison was carried out between the Greater Accra region which has the highest corporate tax rate and the three Northern regions that have no corporate tax rate in order to add more bite to the analysis.
5.0 Results and discussion

The study set out to pursue two main objectives; first, to investigate the extent of regional disparity in the distribution of FDI projects in Ghana; second, the study examined the effect of location incentives on regional distribution of FDI in Ghana.

Objective 1: Extent of regional imbalance in the distribution of FDI projects.

In pursuant of the first objective, trend analysis was used. The results as captured in Table 1 show that the regional distribution of the number of FDI is skewed towards the Greater Accra region, Ashanti region, Central region and the Western region. In particular, for the period of study, that is, September 1994 to 2015Q2, Greater Accra region recorded 4278 out of the 5184 FDIs the country received which amounts to 82.52 percent of the total FDI inflows. The Greater Accra region is followed by Ashanti region with 300 projects, that is, 5.79 percent of all projects received, the Western region with 217 FDIs, that is 4.19 percent of all projects received, the Central region with 115 projects, which is 2.22 percent of FDI inflows and the Eastern region recorded 113 projects, which constitutes 2.18 percent of the total FDI inflow for the country. The five regions together received 5023 FDIs out of the total number of 5184 projects recorded by the country for the period of study. In terms of percentage, the five regions together recorded 96.89 percent of all the FDIs received during the period. The remaining 116, representing 3.11 percent of FDI received by the country was shared among the remaining five regions of Volta, Northern, Brong Ahafo, Upper East and Upper West. In particular, the Upper West region recorded only 4 projects (0.08 percent) and the Upper East region recorded only 8 projects (0.15 percent).

Table 1: Regional Distribution of number of FDI projects, September, 1994 – 2015Q2

<table>
<thead>
<tr>
<th>Region</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Accra</td>
<td>4278</td>
<td>82.52</td>
</tr>
<tr>
<td>Ashanti</td>
<td>300</td>
<td>5.79</td>
</tr>
<tr>
<td>Western</td>
<td>217</td>
<td>4.19</td>
</tr>
<tr>
<td>Region</td>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>------------</td>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td>Central</td>
<td>115</td>
<td>2.22</td>
</tr>
<tr>
<td>Eastern</td>
<td>113</td>
<td>2.18</td>
</tr>
<tr>
<td>Volta</td>
<td>60</td>
<td>1.16</td>
</tr>
<tr>
<td>Northern</td>
<td>49</td>
<td>0.95</td>
</tr>
<tr>
<td>Brong Ahafo</td>
<td>40</td>
<td>0.77</td>
</tr>
<tr>
<td>Upper East</td>
<td>8</td>
<td>0.15</td>
</tr>
<tr>
<td>Upper West</td>
<td>4</td>
<td>0.08</td>
</tr>
<tr>
<td>Total</td>
<td>5184</td>
<td>100.01</td>
</tr>
</tbody>
</table>

Source: GIPC quarterly reports, various issues.

The results in Table 1 show that the distribution of FDI in Ghana is skewed towards Greater Accra region followed by the Ashanti region, Western region, Central region, and Eastern region. The remaining regions recorded less than 2 percent of the FDI inflows and in particular, the Northern region, Upper East region, Upper West region and Brong Ahafo recorded less than 1 percent of the FDI projects registered during the period.

Sector-wise, the number of FDI continues to be unequally distributed among the regions of Ghana. Figure 1 shows the sectoral distribution of FDI by region for the period September, 1994 and December, 2011. From the Figure, Greater Accra records the highest number of FDI for all the sectors. It is interesting to note that even agricultural-based projects are concentrated in Greater Accra. Other regions that record quite a substantial number of FDI for the study period are Ashanti, followed by Western region and then the Central and Eastern regions, respectively (ISSER, 2011).
In conclusion, FDI is unequally distributed among the 10 regions of Ghana. The Greater Accra region has the highest number of FDI, followed by the Ashanti region, Central region, Eastern region, and the Western region. The remaining 5 regions of Ghana, that is, the Brong Ahafo region, Volta region, Northern region, Upper East region and the Upper West region have the least number of FDI.

**Objective 2: Relationship between location incentives and regional distribution of FDI**

The government of Ghana’s rationale for providing the location incentives was to influence the location of FDI away from the Gt. Accra region to the other regions, more especially, the three northern regions of Northern region, Upper West region, and Upper East region. In pursuit of this vision, and as far back as 2004, location fiscal incentives in the form reduced corporate tax for agro-processing firms and firms that produce cocoa based products from cocoa waste was announced. The package include a 20% corporate tax for firms that locate in Accra and Tema.
and 10% corporate tax for firms that locate in the other regional capital excluding Tamale, Wa and Bolga and no corporate tax for firms that locate in Northern, Upper East and Upper West regions. In 2006, the general corporate tax rate was reduced to 25%. In addition to that manufacturing firms that locate in Accra and Tema were to attract the same rate of 25% while firms that locate in other regional capitals attract 18.75%. Firms that locate outside regional capitals attract 12.50%.

For the period 2005 to 2015, the regions recorded 3374 FDIs but it is not known whether or not the incentive package has had any effect on the regional distribution of foreign direct investments in the country. This section analyzes FDI data from Ghana Investment Promotion Centre (GIPC) and the incentive package with the object of identifying any association between the locational incentives and regional distribution of FDI in Ghana. The results are shown in Figure 2. In the Figure, a comparison is made between the average number of FDI and corporate tax rate for Gt. Accra region and the rest of the regions. The expectation is that regions with lower tax burden will attract more FDI. However, Figure 2 indicates that Gt. Accra region, which has a higher corporate tax rate, attracts more FDI than the other regions that have lower corporate tax rate.

![Figure 2: Comparison of number of FDI and corporate tax rate in Greater Accra with all other regions.](image)

Source: GIPC data, 2005-2015

The comparison is further limited to between Gt. Accra and the three Northern regions. The three northern regions of Ghana have no corporate tax burden, however, they are less endowed compared to the other regions, especially Greater Accra region, in terms of availability of social and economic infrastructure, market for manufactured goods, and they have high cost of information among other factors. It is clear from Figure 3 that even though the three Northern
regions have no corporate tax burden, they attract fewer FDI than Gt. Accra region that has a higher corporate tax burden. The picture emerging from the analysis shows that corporate tax rate is not an important determinant of the regional distribution of FDI in Ghana.

![Image: Comparison of number of FDI and corporate tax rate in Greater Accra with three northern regions.](image)

**Figure 3:** Comparison of number of FDI and corporate tax rate in Greater Accra with three northern regions.  
Source: GIPC data, 2005-2015

The finding so far, confirms the findings of ActionAid Ghana (2014) and Van Parys and James (2009) that location incentives are ineffective policy tools to influence the location decisions of FDI. Van Parys and James (2009) suggest that countries with weak investment climate must concentrate on improving on their investment climates instead of reducing taxes.

**Conclusion**

In concluding this subsection, it can be said that location incentives have no effect on the regional distribution of FDI in Ghana.

**Discussion**

The results so far indicate that the regional distribution of FDI is highly skewed towards Greater Accra region. Clearly Greater Accra is a well endowed region in that it is the nation’s capital with all the administrative institutions so information costs is minimal, it has both social and economic infrastructure, it has a pool of specialized labour from which firms can draw labour at low costs, its market is vibrant, it is linked to the rest of the world and it enjoys agglomeration advantages. However, the other regions, most especially, the three northern regions of Upper
East, Upper West and Northern regions are less endowed in that they are isolated and with the exception of the cities like Tamale, Wa and a few other towns, have sparse population, lack skilled labour, market, roads, drinking water, good road network, telecommunication network, electricity and they also lack forest and natural resources. Consequently, the North with the exception of cities like Tamale, Wa and the rest, has attracted very few FDIs.

Even though recent interventions by NGOs and government have led to substantial progress in investments in road, electricity, health, telecommunication, electricity, drinking water, sanitation and education, the levels are nowhere near that of Greater Accra. And what is more, the north continues to suffer from lack of capital, conflict, weather, infrastructure and living conditions and remoteness from key economic and governance institutions (Odi & CEPA, 2005).

Clearly the government needs to do more for the three Northern regions besides providing location incentives to really make the area attractive to foreign investors. This is a herculean task but with the coming into operation of the Ghana infrastructure investment fund in 2015 (Ghana News Agency, November, 2014) and the coming on stream of the Public-Private-Partnership policy in 2011 (CEPA, 2015), the government should be able to raise further the infrastructural state of the northern region to an appreciable standard to attract more foreign investors into the region.

7.0 Conclusions and Policy Recommendations

The study set out to investigate the effectiveness of using location incentives to influence regional distribution of FDI in Ghana. Using data from GIPC for the period 1994 to 2015 and trend analysis, the results show that the distribution of FDI is skewed towards Greater Accra region, Ashanti region, Central region and Western region, with the Greater Accra region topping all of them in spite of the juicy location incentives government has provided since 2014. The results also reveal that there is no relationship between location incentives and regional distribution of FDI in Ghana.

As a policy recommendation, it is suggested that government should work to improve upon the investment climate of the country as a whole and in particular, address the lack of capital, conflict, infrastructure and living conditions and remoteness from key economic and governance institutions characteristic of the northern regions of Upper East, Upper West and Northern region.
in order to attract substantial FDI to these regions. In addition, the Ministry of Trade and Industry should include in its marketing of “Made-in-Ghana-Products” campaign, the marketing of the resources that are available in the northern part of Ghana just as the Ministry of Tourism has been doing for tourist sites in country.

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