THE ROLE AND IMPACT OF GREENFIELD INVESTMENT ON JOB CREATION IN GHANA

By

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ABSTRACT OF THE THESIS

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Thesis Director: Ajai Gaur

Multinational investment in foreign countries has attracted mixed reactions from scholars and policymakers concerning their role and impact on host countries. Proponents of MNCs argue that foreign direct investment (FDI) leads to economic growth, creates technological spillover, increases exports, and creates good jobs, among other benefits. In developing economies, some researchers assert MNCs alleviate poverty through their corporate social responsibilities (CSR). Other scholars, in contrast, argue that MNCs widen the income gap in host countries and engage in human rights violations. The benefits have encouraged developing economies to adopt developmental strategies around MNCs’ activities in their economies. However, the important relationship between greenfield investments and development has been less interrogated in the literature. Using Ghana as a case study, this research examines multinational greenfield investment in Ghana between 2003 and 2020. Adopting the ordinary least square analysis (OLS), the study demonstrates that greenfield investment has a statistically significant and positive impact on job creation in Ghana. The study identifies gross domestic product (GDP), labor force participation rate, and gross capital formation as important indicators that influence job creation in...
Ghana. It concludes with recommendations for policymakers and international partners to strategically attract greenfield investment into Ghana's various regions to enhance economic development through job creation.
Acknowledgments

First, I would like to thank the Almighty God for His Grace and strength throughout this study. Developing this thesis has been an arduous journey yet a profound achievement. I am grateful to Rutgers Graduate School-Newark and the Division of Global Affairs for the various academic sponsorship during this master's degree. My profound thanks go to Dr. Ajai Gaur and Dr. Jun Xiang for their patience, valuable feedback, and guidance throughout this research work. I am also grateful to Dr. Julia Schenkenberg for her quick response to emails, counseling, scholarship nomination, and administrative assistance for my graduate school paperwork.

My love and gratitude go to my family, especially my wife Grace, for being such an understanding, encouraging, and supportive partner to me. Thank you, Emmanuel, for always making the house lively with your loud laughter and toddler songs. Such moments bring refreshment. Lastly, I am highly indebted to my mom, siblings, and the Deeper Life Bible Church members for all your prayers and our fellowship together.
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CHAPTER 1

INTRODUCTION

1.1 Background

As Bhagwati (2007) rightly stated, "...there is a fierce debate between those who consider multinationals to be a malign influence and those who find them to be a benign force" (p. 163). Considering the growth of multinational corporations (MNCs) in size, global influence, revenues, and technical operations, as compared to nation-states, MNCs' activities are often associated with growth and development. As Gilpin and Gilpin acknowledged, "the world's largest MNCs account for approximately four-fifths of world industrial output while typically employing two-thirds of their workforce at home" (2001, p. 289). Thus, some of the positive effects of multinational activities on a host country's economy include productivity and technology spillover, exports, employment, and economic growth, as was emphasized by the United Nations during its International Conference on Financing for Development in Mexico 2002.

"Private international capital flows, particularly foreign direct investment...are vital complements to national and international development efforts. Foreign direct investment contributes toward financing sustained economic growth over the long term. It is especially important for its potential to transfer knowledge and technology, create jobs, boost overall productivity, enhance competitiveness, and ultimately eradicate poverty through economic growth and development" (UN, 2002 p. 5).
Therefore, MNCs' FDI serves as a development strategy for most developing economies (Osei, 2019). Such that FDI from MNCs leads to employment opportunities by directly hiring local workers in the subsidiaries or through indirect employment links with suppliers or affiliates who are attracted into the market, and lastly, through the multiplier effect as they contribute to higher income in the host country (Vacaflores, Mogab, and Kishan, 2017). Using the bottom of the pyramid concept, Prahalad (2005) argued that MNCs could help alleviate poverty, and such markets could benefit MNCs greatly. Emphasizing that "a collaboration between the poor, civil society organizations, governments, and large firms can create the largest and fastest-growing markets in the world. Large-scale and wide-spread entrepreneurship is at the heart of the solution to poverty" (Prahalad 2005 p.28).

Despite these opportunities associated with MNCs, issues of unemployment and projected population growth on the African continent calls for an understanding of the current job market and efficient means to create adequate employment opportunities. Ibrahim (2019) estimated that about 15.7 million young Africans were unemployed on the continent in 2019. With a current population of about 1.3 billion, the African population is estimated to double by 2050 and reach 3 billion by 2063. The remarkable fact is that about 46 percent of this population increase will be young Africans between 15-34 years entering the labor force (AU, 2017). Despite the concerns, Signé (2020) asserts that African population growth, coupled with improvement in political governance and the business environment,
presents investors’ excellent opportunities. The regional effort to spur economic growth and development on the continent through the African Continental Free Trade Area (AfCFTA) agreement is projected to increase foreign direct investment (FDI), particularly in the manufacturing and service sectors, emphasizing the growing opportunities for MNCs on the African continent.

1.2 The African Continental Free Trade Area (AfCFTA)

Signed into an agreement on March 21, 2018, during the 10th Extraordinary Summit of the African Union, the African Continental Free Trade Area (AfCFTA) became the largest free trade area by member countries in the world (World Bank, 2020). The agreement connecting 55 African countries, and its 1.3 billion population, with a combined gross domestic product (GDP) of US $ 3.4 trillion, is expected to grow annually between 0.66 to 0.97 percent. Real wages for both skilled and unskilled workers are also estimated to increase. The impact both at the household and corporate level will be significant, such that by 2030, “the fully integrated market of 1.7 billion people will have an estimated $6.7 trillion of combined consumer and business spending” (Fofack, 2020).

As admitted by Dr. Vera Songwe, the Executive Secretary of the United Nations Economic Commission for Africa, “…our Marshall Plan is the AfCFTA. The AfCFTA is our plan, so let us take it and run with it” (Bayale, Ibrahim & Atta-Mensah, 2020 p. 1). The AfCFTA framework aims at achieving the following objectives: a) enhance economic integration in Africa b) supports the creation of a customs union on the continent c) enhance the continent’s competitiveness d)
facilitate investment and deepen the movement of capital, and people e) promote industrialization (Bayale, Ibrahim & Atta-Mensah, 2020). To achieve these objectives, both tariffs and non-tariff barriers among member countries will be eliminated, reducing trade costs, and giving better access to the regional market to local businesses and multinationals on the continent. This will enhance the partnership between local firms and multinationals, who will also train or share best practices and transfer technology in the process (Akeyewale, 2018).

1.3 Multinational Corporations (MNCs)

As Gilpin and Gilpin (2001) explained, multinational corporations are firms "of a particular nationality with partially or wholly-owned subsidiaries within at least one other national economy" (p. 278). According to Chandler (1986), what makes a firm multinational, is its ability to make and manage direct investments in foreign countries, not portfolio investments. This investment creates an intra-firm connection, "a tissue that unifies on a regular basis; it is not merely a channel for one-time transaction but a basis for different sorts of internal and external organizational relationships" (Wilkins, 2001 p. 6). However, the emergence of the modern MNC was preconditioned by the transportation and communication revolution- telegraph, steamship, and railroad. This increased the speed at which goods were delivered abroad, and information became feasible (Wilkins, 2005). Enterprises, therefore, operated on a national scale at home and invested directly in several countries, with the home office as the corporate headquarters in most
cases. These firms and their subsidiaries are also termed transnational corporations (Jawer & Kuzel, 2015).

1.4 Historical Trends in Foreign Direct Investment

Researchers have argued about the various reasons why multinationals make direct investments overseas. Chandler (1986) noted that FDI is compelled by a firm’s ability to exploit capital advantages, develop technological strengths in product development and differentiation, gain managerial skills or specialized labor, or gain market power. Direct investments also reduced the transaction costs involved in moving raw materials to manufacturing plants and products to customers.

Despite the reasons mentioned above, it is imperative to note that multinational enterprises’ historical growth and development relate to certain critical economic expansionary activities that occurred internationally. The increase in these foreign economic activities constitutes the primary source of a firm’s capital accumulation (Cantwell, 1989). Furthermore, serving as the driving force for foreign direct investment.

For instance, during the first Industrial Revolution (the age of mechanization), which started in the 18th century in Britain and spread to other parts of the world, foreign direct investment by international firms was categorized as resource seeking. This period is mainly associated with trading networks, particularly between colonial masters and their colonies. “For both economic and
political reasons, British, French, Belgian, and Dutch manufacturers preferred to source their raw materials from their colonial territories" (Dunnings, 1993 p.110).

However, by the late 19th century, the nature of FDI by multinationals had changed toward a market-seeking orientation. This period known as the second Industrial Revolution was marked by an increase in manufacturing activities, mainly in the science-based field, and a geographical shift in the percentage of outward FDI from the United Kingdom to the United States. The United States was able to dominate the second paradigm due to its technological advantage. "...the technology of production permitted much larger economies of scale than was possible in the first, the labor-intensive set industries; that is, it permitted a much greater reduction in cost per unit of output as volume increased. So, in this capital intensive, large batch or continuous process technologies, large plants, operating at a minimum efficient scale, had a much greater cost advantage over small plants than was the case in the labor-intensive technologies" (Chandler, 1986 p.38). The efficiency-seeking investment ensures production efficiency within a firm's network, enabling MNCs to compete in the international market by allowing their subsidiaries to specialize or focus on their productive potential. From the 1980s onwards, MNCs began to engage in a strategic asset-seeking FDI whereby the firm's primary motivation was to gain a competitive advantage in a given market by acquiring strategic assets such as human capital, brands, and distribution networks. Through mergers and acquisitions, MNCs can tap into the host country's system of innovation. These four FDI types, from a historical progression, represent the primary driving motive behind MNC activities.
1.5 Purpose of the study

As investors seek opportunities on the continent for profit, to what extent does that generate employment opportunities in Ghana or on the African continent? This research aims to use Ghana as a case study to examine how greenfield investments between 2003 and 2020 (17 years) have led to job opportunities and which source countries and sectors are significant to the economy in terms of employment. By adopting a quantitative analysis approach used by Vacaflores et al. (2017), this research aims to add to knowledge by explicitly analyzing the impact of greenfield investments on Ghana’s job creation. This will inform policymakers and economic development practitioners, and economic development practitioners in Ghana about current greenfield investment trends. It will also provide insight on using MNCs as vehicles to create job opportunities.

Although Ghana is not a traditional FDI destination in Africa, its past decade of economic growth and political stability has enabled the country to attract significant FDI over the past couple of years. According to the fDi 2020 report, "Ghana entered the top 10 destinations by number of FDI projects in the Middle East and Africa," a 56 percent increase from 2018 (fDi Report, 2020 p. 21). Moreover, Ghana commissioned as the secretariat of the AfCFTA could lead to some FDI benefits to the country, reinforcing this research’s significance.

Lastly, this study will also enable the present Ghanaian political administration to execute its One District One Factory (1D1F) plan purposefully and strategically, which seeks to "change the nature of Ghana’s economy from one
which is dependent on import and export of raw material to one which is focused on manufacturing, value addition, and export of processed goods (One District One Factory). By understanding the trend and flow of greenfield investment in Ghana, the administration can adopt proactive policies to attract investors to specific country locations.

1.6 Research Question

1. Does greenfield investment in Ghana lead to significant job creation in the formal sector?

2. Which sectors create the most jobs in Ghana?

1.6.1 Research Hypothesis

Ho: All multinational greenfield investments in Ghana have a significant positive impact on employment in Ghana.

H1: Not all multinational greenfield investments in Ghana have a significant positive impact on employment in Ghana.
CHAPTER 2
REVIEW OF RELATED LITERATURE

Introduction

With the historical trend of FDI discussed above, this section reviews current studies on MNCs and their role in development at the international and state level, leading us to the dominant arguments concerning MNCs’ impact on African development. These arguments will be concluded with the Marxist, Liberal, and Mercantilist divergent views about MNCs and their effect on development. Research on MNCs in Ghana and their role in job creation shall further be examined at the end of this section.

2.1 Multinational Corporations and Development

Multinational corporations expand abroad primarily through FDI to achieve complete or partial control over the production activities, marketing, or facilities in the host economy (Gilpin & Gilpin, 2001). Through their numerous subsidiaries, MNCs have become a significant determinant of trade patterns, with experts estimating that 30 percent of world trade happens within firms (Jensen, 2006). As Stephen Hymer even predicted way before time, "the production by the multinational corporations has already occupied a quarter of the world production. If this were to continue, Hymer states, half of the world's production by 2005 and 80 percent by 2040 would be performed by one or two hundred multinational corporations" (Kojima, 2010 p. 10). Having recognized the growing significance of corporations, the United Nations in 1974 established a unique program to monitor
international businesses’ activities and the flow of FDI. However, this exercise was delayed until 1992, when the United Nations Center on Transnational Corporations executed the mission (Jawerk & Kuzel, 2015). What makes MNCs relevant, according to Meleka (1985), is their "behavioural strategies to offset the internationally changing situation in which they operate, and which is constantly threatening their position" (p. 36).

Scholars have argued that FDI leads to the following positive impacts: productivity and technology spillover; exports; employment; and economic growth (Jensen, 2006; Meleka, 1985). Global research is another crucial role MNCs play in the world economy by participating in international research and development. For instance, in 2002, 46 percent of global R&D activity was sponsored by 700 corporations, totaling about $310 billion (Jawerk & Kuzel, 2015).

Notwithstanding, at the national level, MNCs "have caused a turning point in the economic development of many countries such as Saudi Arabia, the Gulf countries, Brazil, Iran, and South Africa, and such nations may acknowledge that their presence has introduced an epoch of economic growth, development, and modernization which is a deviation from their expected slow natural evolution" (Meleka, 1985 p. 37). Aside from the economic and technological benefits, MNCs through their activities with subsidiaries have "linked nations more tightly to one another" also influencing these countries socially and politically (Gilpin & Gilpin 2001, p. 290).
In summarizing this section, it is essential to mention that when it comes to state economic development, particularly with multinationals' involvement, there are divergent views on the state's role. Proponents of neoliberalism advocate for a free market system, where the state's control is minimal, whereas proponents of the developmental state consider the central role of the state critical to promoting economic development (Gilpin & Gilpin, 2001).

2.2 Role of MNCs in Developing Economies

Since the mid-1980s, many developing countries have opened their economies to FDI inflow (Nunnenkamp, 2004). Several factors explain this liberalization wave; developing countries welcomed these multinational corporations as both "social and cultural change agents" (Meleka, 1985 p.37). They believed that by opening to multinationals, they could emulate the Western ways. Nevertheless, this enabled these MNCs to operate in environments limited by regulations and restrictions. According to Dijk and Marcussen (1990), the focus of multilateral institutions on infrastructural development in developing countries after the Second World War led to promoting the structural adjustment programs (SAP) that mandated third-world countries to open their economies to trade. SAP discouraged public sector and state involvement in industrial development while promoting exports and the private sector. The significant policy shift among developing countries from import substitution to outward-looking can also be attributed to the inefficiencies associated with import substitution, the success of
the newly industrialized economies (NIEs), which were export-led, and increased global production (Lall & Narula, 2004).

Has this openness in the economy led to poverty alleviation and better opportunities through FDI inflows? Researchers and policymakers have mixed evidence regarding the role of MNCs in developing countries. Bhagwati (2007), however, emphasized that the scientific analysis of trade effects on poverty is very compelling and supports MNCs’ argument. This trade effect on poverty is based on a two-step argument, “trade enhances growth, and that growth reduces poverty” (Bhagwati, 2007 p.53). As Cohen (2007) argues through research conducted by the Mckinsey Global Institute, FDI also leads to improved living standards. Because of MNCs’ value for skilled labor and their use of pollution abatement equipment, Cohen (2007) added that they create socio-economic conditions that lead to improved human rights and environmental quality in developing economies. Sen (1999) will consider this improvement as a reduction in poverty as it enhances human freedom. Neal's (1994) insightful contribution acknowledged that MNCs investment in developing economies not only create jobs and improve earnings, but more so opens oppressive regimes and subversive cultures to the global market such that “dictatorships are more likely to collapse, or to change, in the face of an enriched (and thereby empowered) population that has adopted the twin values of the global market place, consumerism and entrepreneurialism” (p. 22). In terms of capital and state benefits, the conservative oligopolistic school claims “MNCs are of more benefit to developing states because they serve as providers of capital which may not be readily available in Africa for
the exploitation of untapped resources especially in the mining and drilling sectors" (Amusan, 2018 p. 46).

Contrary to the benefits mentioned above regarding MNCs’ role in developing countries, some researchers argue that MNCs disregard human rights, especially in Africa. Human rights are limited mainly by the West to political and civic rights, mainly considering the freedom of speech, movement, and life (Amusan, 2018). As Donnelly and Whelan (2019) emphasized, if human rights impact development, then economic rights turn out to be duties to help provide for the needy. Critics assert that, due to MNCs’ corrupt nature, they like to operate in conflict areas in Africa where they will be able to siphon resources for their benefits, underpinning why numerous oil companies are found in Sudan, South Sudan, and Nigeria (Amusan 2018). Researchers like Nunnenkamp (2004) have also argued that FDI does not alleviate poverty; it instead widens the income gap by empowering skilled workers and worsening the poor's relative income.

Bhagwati (2007), in his book chapter, *Corporations: Predatory or Beneficial?* Attempted to address most of the criticism against MNCs. Although he acknowledged MNCs’ political intrusion in developing economies, he added that given the rise in democracy and the age of digitization, such corrupt practices will now be difficult to hide. He further argued that it is a grievous mistake to compare MNCs’ size to the GDP of developing countries to portray developing countries as weak negotiators. Moreover, when it comes to labor rights and worker compensation, although ethical values require MNCs to uphold acceptable labor standards, it is still the host government’s responsibility to enforce labor laws.
Although FDI has a positive impact on growth in other developing countries, Nunnenkamp (2004) indicates that "it is mainly in African countries that FDI may have limited effects on economic growth and poverty alleviation" (p.666).

Nunnenkamp (2004) attributed the lack of positive effect of FDI on economic growth to FDI flow volatility into five African countries (Somalia, Gabon, Sierra Leone, Democratic Republic of Congo, and Algeria). Others attribute the negative effect of FDI in developing economies to globalization. Nevertheless, Lall and Narula (2004) assert that the answer is simple as "the removal of restrictions on FDI does not create the complementary factors that MNCs need; it only allows them to exploit existing capabilities more freely" (p. 4). The controlling strategy of MNCs in the past has made them successful at the expense of developing countries, Meleka (1985) argued. Deploying unnecessary technology which could lead to unemployment, providing elusive and vague information about their activities, transferring profits overseas when developing countries anticipated the reinvestment of profits into the economy, and influencing the host country’s policies and politics are some of the controlling advantages exerted by MNCs in developing countries in Africa.

In summary, developing countries must understand that following the Washington consensus, which alludes to FDI flows, generates positive externalities for domestic firms; it is critical to consider the following factors to benefit from the increased FDI flow (Lall & Narula, 2004). For FDI to be beneficial, developing countries must grasp the competence and scope of operation of that subsidiary in their country. The role played by a subsidiary in the MNCs giant
network determines the nature of the FDI and the local competence they will require to achieve that. Although it is sometimes difficult to ascertain, knowing the motive of an FDI, as discussed above, is critical to determining how externalities and linkages develop. Thirdly, MNCs linkages are significant if developing countries benefit through international technology spillovers, backward linkages, labor turnover, or horizontal linkages. What is important here is the host country’s technological capability, the domestic market orientation of subsidiaries, and the entry mode, whether they were established through greenfield investment or mergers and acquisitions (M&As). Lastly, understanding the nature of the MNC assets can help host countries build appropriate absorptive capacity.

2.3 Contending Conception of MNCs in Africa

As discussed above, the arguments put forward by researchers about the role of MNCs in developing countries can be supported with these three theories: Liberalism, Marxism, and Mercantilism.

2.3.1 Liberalism

Represented by the sovereignty-at-bay model, the theory argues that MNCs possess the resources, flexibility, and mobility and are the best allocator of global resources (Salehizadeh, 1983). Therefore, should they be confronted with any nationalistic policies, they will move their resources and facilities elsewhere, causing that developing country to lose out in employment, access to technology, and the world market. Multilateral institutions are the major proponents of this
theory and advanced countries like the United States; until the Trump administration started engaging in trade wars and nationalistic policies. Liberal minds, like Bhagwati (2007), argue that MNCs do good and create no harm.

2.3.2 Marxism

Represented by the dependency model, it asserts that the flow of wealth flows through MNCs "from the global, underdeveloped periphery to the centers of industrial, financial power and decisions" (Salehizadeh, 1983 p.132). Marxists see MNCs as the primary drivers of capitalist exploitation. Under the dependency theory, which neo-Marxists support, MNCs are said to absorb local assets through a process called "denationalization" (Jensen, 2006). They exploit profit-making opportunities in developing economies while expatriating these profits to their wealthy host countries.

2.3.3 Mercantilism

The mercantilist model, represented as the economic nationalism school of thought, views MNCs as foreign policy tools. Governments manipulate economic activities to promote national interest (Salehizadeh, 1983). Trade transactions are critical to a country’s significance in this model; therefore, state governments will protect domestic firms and promote them in the global economy. Thus, developing countries cannot partner in development with MNCs as they are used to attain economic and political goals by their home countries.
2.4 MNCs in Africa

Most developing countries receive FDI in greenfield investment, requiring MNCs to construct facilities for subsidiaries from the ground up (Jensen, 2006). On the African continent, two kinds of multinational corporations can be distinguished based on country of origin. The developed country multinational corporations (DMNEs) and the emerging-market multinationals (Luo, Zhang & Bu, 2019; Wood, Mazouz, Yin, Cheah 2014).

Although both share similar investment motives to some extent, a significant difference between the two lies in their stages of evolution (Ramamurti, 2012). Unlike DMNEs with ownership advantages in cutting-edge technology, emerging-market multinationals possess different ownership advantages in emerging markets through their ability to adapt to challenging business environments and produce just good enough products at low prices to local consumers (Govindarajan and Ramamurti, 2011; Ramamurti, 2012). Wood et al. (2014) also argued that these emerging-market multinationals in Africa appear to be more concerned about their access to local markets and natural resources than access to local skills and capabilities. They indicated that the Chinese FDI is motivated by a resource-seeking motive, while the Indian MNCs are market-seeking FDI oriented. Brazilian MNCs are associated with their historical links with Lusophone African countries.

While limited, research studies on MNCs’ role in Africa and their impact have been conducted at various levels. Table 1 below summarizes relevant research about MNCs’ activities in Africa concerning trade, economic growth and development, and poverty alleviation. Another critical activity pertinent to the
operations of MNCs in Africa is corporate social responsibility (CSR). CSR in recent years has become a significant concept demonstrated by MNCs to show their sensitivity to the challenges of local communities by supporting them with educational, health, and safety needs, among others (Williams, Frempong, Akuffobea & Onumah, 2017). MNCs’ activities have received mixed reactions from local community members and research findings regarding their economic development impact. Researchers such as Amusan (2018) have concluded that CSR is not "adequate to address the challenges of unemployment, poverty, conflicts, and fall in the standard of living" in Africa, further indicating that "development from the top through FDI has not addressed the daunting rate of economic depression, political uncertainty and poor social welfare in Africa" (p. 56). Eweje (2006) indicated that developing communities have greater expectations for CSR initiatives, particularly in communities where the government has not been responsible for providing social and economic support. Table 2 below summarizes the arguments on the impact of CSR on African local communities, and table 3 shows some specific CSR actions from selected MNCs in Ghana.
<table>
<thead>
<tr>
<th>Author(s)/year</th>
<th>Journal</th>
<th>Main arguments and findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amendolagine, V., Boly A., Coniglio, D., N., Prota, F., &amp; Seric, A. (2013)</td>
<td>World Development</td>
<td>Using 19 sub-Saharan countries to examine the determinants of backward linkages between MNCs and domestic firms, their research concluded that foreign firms with substantial linkages to domestic firms create extensive opportunities in the host country’s economy.</td>
</tr>
<tr>
<td>Anetor, O., F., Esho, E. &amp; Verhoef, G. (2020)</td>
<td>Cogent Economics &amp; Finance</td>
<td>Applying the Feasible Generalized Least Square (FGLS) on 29 sub-Saharan countries, the results show that FDI and foreign aid negatively affect poverty reduction. Suggesting that these countries have not received sufficient FDI required to alleviate poverty, and the foreign aid inflows are not properly channeled. Trade, however, has a positive and significant impact on poverty alleviation.</td>
</tr>
<tr>
<td>Giuliani &amp; Macchi (2014)</td>
<td>Cambridge Journal of Economics</td>
<td>Strong host country-level factors such as social capability, civil society, and state capacity reduce the negative impacts of FDI in developing countries. Thus, human rights abuses will be mitigated in a country with a</td>
</tr>
<tr>
<td><strong>Gorg, H., &amp; Seric, A. (2016)</strong></td>
<td><strong>European Journal of Development</strong></td>
<td>They used firm-level data to analyze the link between domestic firms in 19 African countries, their business relationship with MNCs, and how that impacts their performances in productivity and innovation. They found that, on average, when domestic firms supply to MNCs, it leads to product innovation, and when they buy from MNCs, it is positively associated with labor productivity.</td>
</tr>
<tr>
<td><strong>Soumare, I. (2015)</strong></td>
<td><strong>Applied Economics</strong></td>
<td>Using the United Nation’s Development Program’s Human Development Index and net per capita FDI inflows, the study found a positive and strong correlation between net FDI inflows and Welfare increase in North Africa. At the aggregate level, FDI leads to economic growth in Northern Africa.</td>
</tr>
<tr>
<td><strong>Jensen (2006)</strong></td>
<td><strong>Published by Princeton University Press</strong></td>
<td>The common form of FDI in developing economies is greenfield investments. Through which MNCs construct subsidiaries in foreign nations from scratch. Brownfield investment, which is another form of FDI, is very common in advanced economies.</td>
</tr>
</tbody>
</table>

The strong rule of law, enabling monitoring and sanctioning workers’ rights abuses.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Journal</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luo, Zhang, Bu (2019)</td>
<td>Journal of International Business Studies</td>
<td>They provide insight into how Developed country MNEs co-evolve with the host country's institutional and competitive environment in iterative, recursive, and interactive sequence, mainly in developing economies. These characteristics were studied along the lines of how these DMNEs enter developing economies, manage alliances and joint ventures, organize local activities, compete in dynamic environments and deal with governments, institutions, and society.</td>
</tr>
<tr>
<td>Neal &amp; Bennet (1994)</td>
<td>International Journal on World Peace</td>
<td>MNCs are agents of democracy and peace developing economies. Despite the criticism against MNCs, we need to understand that MNCs are business organizations and not charities. Through their investment, closed regimes are opened, and subversive cultures are exposed.</td>
</tr>
<tr>
<td>Nunnenkamp (2004)</td>
<td>Wiley Online Library</td>
<td>To alleviate poverty using FDI, developing countries must meet these two conditions. First, they must be attractive to foreign investors, and secondly, they must create a conducive environment favorable to</td>
</tr>
<tr>
<td>Reference</td>
<td>Journal</td>
<td>Summary</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Nonnenberg &amp; Mendonca, (2011)</td>
<td>SSRN Electronic Journal</td>
<td>Using a sample of 38 developing countries between 1975 to the year 2000, estimating the determinants of direct foreign investment, they found that both the size of an economy (measured by GNP) and the average growth rate in previous years have a significant positive effect on the flow of FDI. The degree of openness and level of schooling were other variables that are highly significant in attracting FDI. For source countries, the capital market's growth (measured by DOW JONES) is a strong determinant of FDI outflow.</td>
</tr>
<tr>
<td>Salehizadeh (1983)</td>
<td>Third World Quarterly</td>
<td>Analyzed comprehensive regulations enacted by Less Developed Countries (LDCs) to govern the inflows of FDI; and how this &quot;national entry control system&quot; has shaped the relationship between LDCs and FDI. Despite perceived conflicts, one may expect between LDCs and MNC’s interests, LDCs can enforce effective entry and control systems, as they advance economically.</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Journal</td>
<td>Summary</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Coniglio, N.D., Prota, F., &amp; Seric, A. (2015)</td>
<td>Journal of International Development</td>
<td>Provides a cross-country analysis of the relationship between foreign ownership and employment in host countries, using firm level data. Showing that foreign-owned firms create more employment opportunities than local companies in sub-Saharan Africa, even if those jobs are less skill intensive.</td>
</tr>
<tr>
<td>Saurav A., Liu, Y., &amp; Sinha, A. (2020)</td>
<td>World Bank Group Publication</td>
<td>MNCs have positive effect in terms of job generation on subsidiaries in developing countries. There exists a high wage inequality for skilled workers in domestic firms and foreign firms. Lastly, although there is a significant increase in jobs for domestic suppliers, yet the wage growth of their workers is modest</td>
</tr>
</tbody>
</table>
Table 2: Key literature on MNCs Activities in Africa: Corporate Social Responsibility (CSR)

<table>
<thead>
<tr>
<th>Author(s)/ year</th>
<th>Journal</th>
<th>Main arguments and findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amusan, L. (2018)</td>
<td>Journal of African Foreign Affairs</td>
<td>So long as multinationals remain profit-oriented and satisfy their shareholders, CSRs will hardly hold water. MNCs have what it takes to conquer the international system, making African countries' resistance to their influence a failure, often resulting in a negative consequence. CSR is not sufficient to address poverty, conflicts, and falling living standards on the continent. The author recommends the promotion of small and medium industries as the solution for employment and labor problem.</td>
</tr>
<tr>
<td>Calvano, L. (2008)</td>
<td>Journal of Business Ethics</td>
<td>Three interrelated factors are primarily responsible for conflicts between multinationals and local communities. These are stakeholder perception gaps, stakeholder power inequality, and cultural context. To de-escalate tension between the two, there needs to be an increased connection between CSR and the international development goals of poverty and sustainability.</td>
</tr>
<tr>
<td>Eweje, G. (2006)</td>
<td>Business &amp; Society</td>
<td>Community development initiatives are essential to fostering a cordial relationship between local communities and MNEs. Local communities’</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Source</td>
<td>Summary</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>Turyahabwa, J. (2014)</td>
<td>Poverty &amp; Public Policy</td>
<td>MNCs often play the following roles in developing economies: providing employment, supporting youth industrial training, and contributing to community development initiatives. However, in East Africa, there seems to be a mismatch between the expectation of community members and the MNCs’ CSR initiatives. To address this, MNCs need to conduct participatory research before initiating any CSR project.</td>
</tr>
<tr>
<td>Uduji, I., J. &amp; Okolo-Obasi, N., E. (2019)</td>
<td>Journal of International Development</td>
<td>Using the Niger Delta as a case of analysis, the authors argued that multinational oil companies (MOC) in the region hold the key to youth participation in traditional economic activities. Including cloth weaving, mat making, pottery making, and basket weaving. When MOCs adequately support such initiatives, rural youths are retained in their communities, resolves incessant youth conflicts and uprisings.</td>
</tr>
</tbody>
</table>
Table 3: Corporate Social Responsibility from Selected MNEs in Ghana

<table>
<thead>
<tr>
<th>Company</th>
<th>CSR ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilever Ghana</td>
<td>• 2016, 20 High School students received a 3-year scholarship, a galaxy tablet, a gold medal, and nestle products.</td>
</tr>
<tr>
<td></td>
<td>• Rewarded the best eight female graduates from the nation's tertiary institutions in 2016.</td>
</tr>
<tr>
<td></td>
<td>• Launched the IdeaTrophy business challenge in 2018 to increase youth employability as students gain corporate experience across the world</td>
</tr>
<tr>
<td>MTN</td>
<td>• Donated 2 000 mathematical textbooks to six high schools in Ghana in 2019</td>
</tr>
<tr>
<td></td>
<td>• Trained fifty youths in self employable skills in the country's Upper East region in 2019.</td>
</tr>
<tr>
<td></td>
<td>• In 2017, furnished and commissioned an ultra-modern Information Communication and Technology (ICT) for a High School (Aggrey Memorial A.M.E Zion School).</td>
</tr>
<tr>
<td>AngloGold Ashanti</td>
<td>• Donated GHS 600,000 to support a University campus expansion for the 2020/2021 academic year – KNUST.</td>
</tr>
<tr>
<td></td>
<td>• Donated GHS25,000 to the Adansi Education Fund in 2020.</td>
</tr>
<tr>
<td></td>
<td>• Sprayed all prisons and prison quarters in Ghana, a fight against malaria in the country, in 2018.</td>
</tr>
<tr>
<td>Stanbic Bank</td>
<td>• Donated PPEs to a major hospital in Accra- Korle-Bu in 2020.</td>
</tr>
<tr>
<td></td>
<td>• Adopted street children and invested GHS50,000 to address streetism in the year 2019.</td>
</tr>
</tbody>
</table>
### Huawei

- Donated GHc 10,000 to Dzorwulu Special School in 2016
- Provided Ghana Telecom University with ICT facilities in 2020
- Donated medical equipment, therapy books, and a GHc 24,000 worth of gifts to the Speech Therapy Department of Ghana's Regional Children's Hospital in 2020.
- Sponsored 15 students in 2017 to study technology in China.

Source: Philanthropy Space

While acknowledging the significance of the above research on CSR on Africa's development, it is also essential to be objective and remember that MNCs are profit-oriented business entities. As Meleka (1985) acknowledged, MNCs have an "exhaustive number of strategic goals," and among them are profit maximization, minimization of losses and risk, competitive thinking, and drafting contingency plans to deal with changing market situations (p. 40). Hassan, Olawoye, and Nnadozie (2002) also indicated that "such investments do not come as a matter of charity; they come to make profits, to make use of local resources, to take advantage of cheap or skilled labor, or to capture the local market against other foreign competitors, indeed even against local enterprises" (p. 21). Despite this argument, does it mean FDI should not be encouraged? A no will be a hasty answer, especially understanding that FDI by MNCs and CSR could technically be different although they are all investments.

Looking beyond the nexus between FDI and CSR in sub-Saharan Africa, D'Amelio, Garrone, and Piscitello (2016) found that MNCs from countries with institutional voids are more likely to promote electricity infrastructure development because it is an asset essential for their daily operations. In West Africa, MNCs'
active participation in the planning, programming, articulation, and shaping of policies within the Economic Community of West African States (ECOWAS) has fostered economic integration within the region (Enyinda, Obuah & Ogbuehi, 2000). Based on their long-term commitment to host countries, Sharma, Vredenburg, and Westley (1994) argued that MNCs could also act as a strategic bridge between multilateral institutions and developing countries in West Africa. Such collaboration and partnership between MNCs and multilateral institutions will make lending by multilateral institutions successful in promoting economic development in West Africa. These are some of the diverse roles MNCs play in fostering development in Africa aside from CSR.

As previously mentioned above, one of the significant roles MNCs play in developing countries is to stimulate growth through trade. As growth is achieved, the assumption is that job creation follows. However, as Baah-Boateng (2016) emphasized, job creation "needs to be treated as a driver rather than a passive outcome of growth" (p. 414). Therefore, knowing the impact of FDI on employment is important. Furthermore, in addressing this challenge in Sub-Saharan Africa, Coniglio, Prota, and Seric (2015) determined that foreign firms create more job opportunities than domestic firms through their econometric analysis.

Using Ghana as a case study, this research determines to employ the pooled OLS regression technique as used by Vacaflores et al. (2017) to analyze the relationship and the impact of greenfield investment in Ghana to determine which sectors create jobs the most.
2.5 Ghana (Overview)

According to the World Bank Group income category, Ghana is a lower middle income and a democratic country that gained independence from the British colonial masters in 1957—located in West Africa, bordered by Cote d'Ivoire, Togo, and the Gulf of Guinea. In comparison by land size, Ghana is slightly smaller than the state of Oregon (cia.gov). Approximately 57% of the total population is under age 25. Accra is the capital city, and in 2020, the total population was 31 million (UN data). In terms of its global engagements, Ghana joined the United Nations on March 8, 1957, and part of the African Union (AU), founding members, formerly the Organization of African Unity (OAU). The table below is a summary of key economic indicators over the years.

Table 4: Key Economic Indicators, Ghana

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (million US$)</td>
<td>42587</td>
<td>49182</td>
<td>65535</td>
</tr>
<tr>
<td>ECONOMY: AGRICULTURE (% of Gross Value Added)</td>
<td>28.9</td>
<td>22.1</td>
<td>19.7</td>
</tr>
<tr>
<td>ECONOMY: INDUSTRY (% of Gross Value Added)</td>
<td>28.2</td>
<td>34.6</td>
<td>34</td>
</tr>
<tr>
<td>ECONOMY: SERVICES &amp; OTHER ACTIVITY (% of Gross Value Added)</td>
<td>48.3</td>
<td>46.3</td>
<td>44.5</td>
</tr>
<tr>
<td>UNEMPLOYMENT (% of labor force)</td>
<td>5.3</td>
<td>6.8</td>
<td>4.5</td>
</tr>
<tr>
<td>LABOUR FORCE PARTICIPATION RATE (female/male pop. %)</td>
<td>66.9/73.3</td>
<td>63.5/72.5</td>
<td>63.5/71.8</td>
</tr>
</tbody>
</table>
2.5.1 FDI, Investment and Employment in Ghana

The presence of MNCs in Ghana can be traced back to the colonial era when companies such as United Trading Company (UTC), Paterson and Zochonis (PZ), Kingsway, Lever Brothers (Unilever), and the United African Company (UAC) entered the Ghanaian market, with some still operating today (Williams et al., 2017). After independence, Ghana’s effort to attract foreign investment has been associated with the following reasons: 1) the county has enormous natural resources but lacks the capital and technology to explore them efficiently, 2) the economy is mainly dependent on agricultural products as its primary export commodity, 3) the economy is overly dependent on the importation of goods and services (Dagbanja, 2014). This has led to enacting domestic laws and national policies to regulate the flow and promote capital investment. The first legislation enacted after Ghana’s independence is the Capital Investment Act (Act 179) in 1963 to promote and protect foreign investment (Dagbanja, 2014). Subsequently, policies such as the Economic Recovery Program (ERP) were initiated in 1983 by the Ghanaian government to support the World Bank and the International Monetary Fund (IMF). Adopting a market-oriented approach, the ERP liberalized the external sector and significantly reduced the macroeconomic imbalances (IMF). Throughout that period, the country’s balance of payment registered a sizeable overall surplus. However, some critical reforms’ slow implementation led to an economic crisis, hampering private investment, export growth, and economic
growth. The government’s quest to create an enabling legal environment to attract FDI led to the enactment of the investment code Ghana Investment Promotion Center (GIPC) Act in 1994 (Act 478) (Abor & Harvey, 2008). Table 5 below summarizes the various legislatures enacted since independence to date, outlining their primary purpose and significant accomplishments.

In summary, available data shows that between September 1994 and June 2002, the Ghana Investment Promotion Center has registered a total of 1309 FDI projects with 388 in the service, 368 in manufacturing, 153 in tourism, 106 in building and construction, 105 in agriculture and 91 in export trade. These FDI sources are Great Britain, India, China, the USA, Lebanon, Germany, Italy, Switzerland, Netherlands, Canada, France, South Africa, Nigeria, and Malaysia.

In terms of employment opportunities in Ghana, FDI "has had direct and multiplier effects on the level of employment, its quality, and the skills of the labor force" (Fu, 2020 p. 52). Although it has not contributed to labor-intensive activities in some sectors, like the mining sector due to capital intensive production, such regions are training their labor force with specific engineering and management skills to make them relevant in other sectors and high-paying jobs outside the mining sector. On formal employment in the Ghanaian economy, FDI has a positive effect (Abor & Harvey, 2008). This effect, they acknowledge, can either be qualitative or quantitative. "The employment creation effect of FDI is likely to depend on several factors, including the size of the FDI, the size of existing firms, the composition of their output, their innovative capacity, and the general performance of the economy (Abor & Harvey, 2008 p. 217)."
Table 5: Domestic Investment Laws in Ghana

<table>
<thead>
<tr>
<th>Domestic Investment Acts</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Capital Investment Act (CIA) 1963 (Act 172)</strong></td>
<td>Under the criteria for investment, approval will be granted if it contributes to the following¹:</td>
</tr>
<tr>
<td></td>
<td>a) The development of the productive capacity of the national economy through the efficient utilization of resources and economic potential;</td>
</tr>
<tr>
<td></td>
<td>b) The full utilization and expansion of the productive capacity of existing enterprises</td>
</tr>
<tr>
<td></td>
<td>c) The saving on imports, the increase of exports and the improvement of services which will assist the strengthening of the payments position of the country; or</td>
</tr>
<tr>
<td></td>
<td>d) A high level of employment and the impartation of technical skills to persons who are citizens of Ghana.</td>
</tr>
<tr>
<td></td>
<td>The CIA led to establishing the Capital Investment Board (CIB), a regulatory institution responsible for the Act.</td>
</tr>
<tr>
<td><strong>Capital Investment Decree 1973 (NLCD 141)</strong></td>
<td>Enacted by the military regime of Ignatius Acheampong.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Law Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment Code 1981 (IC 1981) (Act 437)</strong></td>
<td>Abrogated the CIA, but retained almost all the content of the CIA</td>
</tr>
<tr>
<td></td>
<td>Repealed both CID and the Investment Policy Decree 1975</td>
</tr>
<tr>
<td></td>
<td>The objective was to consolidate all existing legislative pieces and redefine priority areas of investments. Increasing incentives to benefits to encourage foreign investment.</td>
</tr>
<tr>
<td></td>
<td>The IC 1981 led to the establishment of the Ghana Investment Centre (GIC), responsible for regulating and promoting investments in all sectors of the Ghanaian economy.</td>
</tr>
<tr>
<td><strong>Investment Code 1985 (PNDC 116) (IC 1985)</strong></td>
<td>Repealed the IC 1981 and was enacted by Rawlings administrations against the backdrop of the Structural Adjustment Program, which sought realistic steps to make the Ghanaian economy more competitive for investment.</td>
</tr>
<tr>
<td></td>
<td>GIC continued to coordinate, encourage, and promote investment under this Act</td>
</tr>
<tr>
<td><strong>Ghana Investment Promotion Centre Act 1994 (GIPCA) (Act 478)</strong></td>
<td>Replaced the GIC but governed all Ghanaian sectors except for minerals, oil and gas, and the free zones. GIPC, a government institution, is responsible for handling all enterprises outside the mining and energy sectors.</td>
</tr>
</tbody>
</table>
Under this Act, the fundamental requirement for investment admission into Ghana was the minimum capital

<table>
<thead>
<tr>
<th>Ghana Investment Promotion Centre Act 2013 (Act 865)</th>
<th>This repealed the GIPCA and made provision for the transfer of capital investment, payment of loan servicing, technology transfer agreements, remittance, and dividends of profits.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The Ghana Investment Promotion Centre (GIPC), as the government agency, is responsible under this Act, 2013 &quot;to encourage and promote investments in Ghana, to provide for the creation of an attractive incentive framework and a transparent, predictable and facilitating environment for investments in Ghana&quot;.</td>
</tr>
</tbody>
</table>

### 2.6 Relevant Related Methodologies

This section reviews relevant methodologies employed by some researchers who have examined the impact or the relationship between FDI and job creation. Using a sample of 5,641 subsidiaries in 66 host countries in the Americas, Europe, and Asia, Vacaflores et al. (2017) examined the impact of FDI on employment between 2006 and 2008. Adopting the pooled ordinary least square (OLS) regression technique with an econometric specification given by:

\[
emp_{ij} = \alpha_0 + \alpha_1 FDI_i + \alpha_2 \Delta SIZE_i + \alpha_3 \Delta GDPgr_j + \alpha_4 \Delta TR_j + \alpha_5 \Delta INV_j + \alpha_6 \Delta LFPR_j + \varepsilon_{ij}
\]

---

2 Ghana Investment Promotion Centre (www.gipcghan.com)
Where $\text{emp}_{ij}$ is the change of employment in subsidiary $i$ in the country $j$ between the years 2006 and 2008; $\text{FDI}_i$ is the amount of foreign investment; $\Delta \text{SIZE}_i$ is the growth rate of subsidiary’s total assets; $\Delta \text{GDPgr}$ measures the average growth rate of the economy’s real GDP; While $\text{TR}_j$ shows the country’s economic openness by measuring the average share of imports and exports as a percentage of GDP; $\text{INV}_j$ is the gross capital formation measured as a percentage of the country’s GDP; $\text{LFPR}_j$ is the labor force participation rate. The explanatory variables were lagged one year. Osei (2019), whose research analyzed the impact of foreign direct investment on employment in the Ghanaian non-mining sector from 2000 to 2016, also adopted the OLS multiple linear regression model but included the autoregressive distributed lag bounds testing approach and the Granger-Causality test to estimate the level of relationship and cointegration among the variables for robustness. Their regression model is stated below, with an explanation of the variables:

$$\ln \text{EMR}_t = \beta_0 + \beta_1 \ln \text{FDI}_{t-1} + \beta_2 \ln \text{Wage}_{t-1} + \beta_3 \ln \text{SubSt}_{t-1} + \beta_4 \ln \text{InvF}_{t-1} + \beta_5 \ln \text{GDP}_t - 1 + \xi_t$$

where

EMR = Rate of Employment

FDI = Foreign Direct Investment as a percentage of GDP

Wage = Wage Structure
SubS = Value added by activity as a percentage of GDP

IvF = Investment Freedom Index

GDP = Real Gross Domestic Product Growth

β0 = Constant Coefficient

β1, β2, β3, β4, β5 = Short-run Coefficients

ξ t = Error Term

Finally, this section is the research conducted by Abor and Harvey (2008), which focused on FDI impact on job creation and wages in Ghana. They employed the simultaneous panel regression model for their analysis due to their data, which has several data points, thereby increasing the degrees of freedom and reducing the collinearity among the explanatory variables. Below is their empirical model for both employment and wages:

\[ Emp_{it} = \alpha_1 + \beta_1 FDI_{it} + \sum_{j=2}^{N} \beta_j Controls_{it} + \mu_{it} \]

\[ Wages_{it} = \alpha_1 + \beta_1 FDI_{it} + \sum_{j=2}^{N} \beta_j Controls_{it} + \mu_{it} \]

From the above equations,

Emp = Measured as the log of employment
Wages = Measured as a log of real wages

FDI = the dependent variable presenting wholly or partially owned firms

Controls = is the vector of the control variables

Although all these studies examined the impact of FDI on employment (with the last two focusing on Ghana), their data set range is different. Some of the repeated explanatory variables are GDP growth rate, wages, and openness of the economy or investment freedom.
CHAPTER 3
METHODOLOGY

This chapter presents the selected methodology used for the study, the data collection method, and a description of the data. This chapter also presents information on the reliability of the sources of information.

3.1 Purpose of the Study

This study's primary purpose is to assess the impact of greenfield investment on job creation across Ghana. Moreover, to examine which sectors and sources countries' MNCs create the most jobs.

3.2 Research Question

1. Does greenfield investment in Ghana lead to significant job creation in the formal sector?
2. Which sectors create the most jobs in Ghana?

3.3 Sample

The researcher depended solely on secondary data for this research. No surveys were conducted. All data for the research was obtained from databases. Unlike other data sets, this FDI sample shows the individual capital investment by each MNC, their source country, state, destination state within Ghana, and the associated jobs it created. These companies were also grouped in
sectors/clusters and align with the North American Industry Classification System (NAICS). The table below shows the sectors represented in the data.

Table 6: MNCs Investment in Ghana: Sectors

<table>
<thead>
<tr>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Components</td>
</tr>
<tr>
<td>Automotive OEM</td>
</tr>
<tr>
<td>Building Materials</td>
</tr>
<tr>
<td>Business Services</td>
</tr>
<tr>
<td>Ceramics &amp; Glass</td>
</tr>
<tr>
<td>Chemicals</td>
</tr>
<tr>
<td>Coal, oil &amp; gas</td>
</tr>
<tr>
<td>Communications</td>
</tr>
<tr>
<td>Consumer Electronics</td>
</tr>
<tr>
<td>Consumer Products</td>
</tr>
<tr>
<td>Electronic Components</td>
</tr>
<tr>
<td>Engines &amp; Turbines</td>
</tr>
<tr>
<td>Financial Services</td>
</tr>
<tr>
<td>Food &amp; Beverages</td>
</tr>
<tr>
<td>Healthcare</td>
</tr>
<tr>
<td>Hotels &amp; Tourism</td>
</tr>
<tr>
<td>Industrial Equipment</td>
</tr>
<tr>
<td>Metals</td>
</tr>
<tr>
<td>Non-automotive transport OEM</td>
</tr>
<tr>
<td>Paper, Printing &amp; Packaging</td>
</tr>
</tbody>
</table>
Pharmaceuticals
Plastics
Real Estate
Renewable Energy
Rubber
Software & IT services
Textiles
Transportation & Warehousing
Wood Products

The above table is significant as it portrays how diversified the Ghanaian economy is becoming. According to recent World Bank data, Ghana’s services sector contributed the most to economic growth in 2019 with 2.8 percentage points, followed by the industrial sector, which recorded 2.4 percent, and then agriculture, which had a magnitude of 1.3 percent (World Bank).

3.4 Data Collection and Instrumentation

Data for this research was collected from the following databases:

3.4.1 fDi Markets

The British company, Financial Times, provides the most comprehensive information on greenfield investment across nations. The database provides live data on over 16,000 investment projects by MNCs in all sectors across 178 countries. Launched in 2003, fDi Markets tracks cross-border investments that
lead to new physical projects or the expansion of an existing investment that creates new jobs and generate new capital investment. The service does not include Mergers and Acquisitions (M&A) and other equity investments. Its data collection is solely focused on greenfield investments.

Through fDi Markets, the researcher obtained all greenfield investments into Ghana from all over the world from June 2003 to September 2020. This data consists of 500 projects by 380 companies across the years stated above. The database records each greenfield project against the following: month/year, investing company, source country, source state, destination state, destination city, sector, cluster, activity, jobs created capital investment, and a column for estimation. This estimation column is one of the limitations of the dataset. Some companies do not announce the specific jobs their investments will create; however, based on the "proprietary econometric model," fDi Markets estimates the jobs and investments when this information is not directly available (fDi Markets).

3.4.2 The World Bank DataBank

Known for its global agenda on poverty alleviation, the World Bank database provides relevant data on countries on thematic topics such as education, agriculture and development, climate change, economic policy and external debt, social development, private and public sector, poverty, labor, and social protection.
Using the World Development Indicators in the DataBank, the researcher extracted the following explanatory variables: gross domestic product, labor force participatory rate, import/export of goods and services, and the inflation data, from 2003 to 2019 (most data for 2020 are not available on Databank).

### 3.4.3 UNESCO Institute for Statistics

UNESCO's statistical agency provides data on countries such as education, culture, science, and communication. This open database allowed the researcher to access educational data on Ghana for gross enrollment ratio at the secondary level for both males and females.

### 3.5 Data Analysis

This research's main objective is to determine whether greenfield investment, a type of FDI, has a significant positive impact on Ghana's job creation. This was determined using the statistical package R. The R studio software is a free statistical computing program like SPSS, which allows for data calculation, manipulation, and graphical display. However, one significant difference is that it is designed around computer language, allowing users to redefine functions easily (R-project).

### 3.6 Description of Variables

A dependent variable is the response measured or the presumed effect, whereas an independent variable is the manipulated variable or the presumed
cause. The dependent variable used in this research is jobs created, and the independent variables:

**Capital investment (FDI)** – showing the amount of capital invested by each multinational in millions of United States Dollars

**Gross Domestic Product (GDP %)** – Rate of growth in GDP was used to measure the state of the economy

**Labor Force Participation Rate** - This rate measures the population age 15+ who are economically active in Ghana.

**Gross Capital Formation (% of GDP)** – Formerly known as gross domestic investment, it shows the countries commitment and investment in fixed assets in the economy such as land improvement, railways, hospitals, industrial buildings etc. (World Bank)

**Average Import/Export of goods and services** – measured as a percentage of GDP, the average of both imports and exports for Ghana
was calculated.

In analyzing the first research question, the researcher manipulated the data to test its robustness and consistency. The results and analysis of the data are presented in Chapter 4.
CHAPTER 4

ANALYSIS

4.1 Introduction

This study examines whether greenfield investment in Ghana leads to job creation and which sector creates the most jobs. In this chapter, the researcher describes the results of the regression analysis.

4.2 Empirical Regression Results

The researcher conducted two principal regression analyses. The first statistical analysis was conducted by adding all the firms’ greenfield investments into years and analyzed all the variables as annual data. Although this approach crowded out the individual firms and sector effect on the model, it allowed the researcher to lag the independent variables and examine the general impact of FDI on employment in Ghana.

The general model for the analysis is in the form: \( \text{JobsC} = \text{GDP} + \text{FDI} + \text{LFPR} + \text{INV} \). JobsC is jobs created; GDP is Gross Domestic Product; LFPR is the Labor Force Participation Rate; INV is the Gross Capital Formation. The model above helped to ascertain the impact of greenfield investment (FDI) on employment in Ghana. The regression summary is in table 7 below, which shows the proposed model to be significant at a level of p-value: 0.003848. Moreover, the model has an R-squared and adjusted R-squared of 0.6992 and 0.5989, respectively. The adjusted R-square of 0.5989 suggests that the independent variables explain 59 percent of Ghana’s job creation variations, whereas 41...
percent is unexplained. Thus, the above model is credible to answer the first research question. In examining whether FDI impacts job creation in Ghana, the FDI’s coefficient shows a positive value at a 0.1 significant level. Meaning, every unit increase in Ghana’s greenfield investment, holding all other variables, leads to a job creation. Implying job creation is responsive to greenfield investment in Ghana, although not very significant. For GDP, although it shows a positive correlation, yet its impact is not significant. LFPR, however, is very significant at 0.01 and positive. This shows that the level of education, particularly at the secondary level, significantly impacts Ghana’s job creation. Lastly, INV also shows a positive and significant level at 0.1. This means every 1 percent increase in gross domestic investment leads to about 20 job opportunities in Ghana’s formal sector.

Table 7: Regression Summary Output (Dependent Variable is Emp)

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>Std. Error</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>0.9837</td>
<td>0.4078</td>
<td>0.032761 *</td>
</tr>
<tr>
<td>GDP</td>
<td>15.8275</td>
<td>15.6719</td>
<td>0.332460</td>
</tr>
<tr>
<td>LFPR</td>
<td>88.2740</td>
<td>20.2664</td>
<td>0.000935 ***</td>
</tr>
<tr>
<td>INV</td>
<td>19.5295</td>
<td>7.5649</td>
<td>0.024027 *</td>
</tr>
<tr>
<td>Constant</td>
<td>-6550.3746</td>
<td>1481.1885</td>
<td>0.000832 ***</td>
</tr>
<tr>
<td>Prob&gt;F</td>
<td>6.974</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-Squared</td>
<td>0.5989</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***, **, and * denote significance at 1%, 5% and 10% respectively.
To determine which sectors have the most impact on job creation, the analysis was conducted using microdata. The microdata has 500 observations of projects from 380 MNCs who have invested in Ghana from 2003-2020. The cluster classification was used instead of the specific sectors. Although the cluster classification is not sector-dependent, the approach allowed the researcher to account for the linkages between the sectors, particularly the true value chains. The analysis shows an adjusted R-square of 0.9133, with five clusters being very significant and positively impacting job creation in Ghana. These clusters are Consumer Goods, Physical Sciences, Transport Equipment, Transportation & Warehousing, and Wood, Apparel & Related Products. The only cluster that shows a positive correlation but with no significance is the Life Sciences. Table 8 shows the dominant sectors in the clusters.

Table 8: Regression Analysis with dummy variables

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>Std. Error</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>0.8773</td>
<td>0.1036</td>
<td>4.38e-09 ***</td>
</tr>
<tr>
<td>Source.country</td>
<td>-132.1328</td>
<td>121.0059</td>
<td>0.284502</td>
</tr>
<tr>
<td>Cluster-Construction</td>
<td>-28.1145</td>
<td>105.5518</td>
<td>0.791988</td>
</tr>
<tr>
<td>Cluster-Consumer Goods</td>
<td>322.7050</td>
<td>111.8827</td>
<td>0.007615 **</td>
</tr>
<tr>
<td>Cluster-Creative Industries</td>
<td>-216.5533</td>
<td>150.9985</td>
<td>0.163013</td>
</tr>
<tr>
<td>Cluster-Energy</td>
<td>-188.0541</td>
<td>1.259</td>
<td>0.218705</td>
</tr>
<tr>
<td>Cluster-Environmental Technology</td>
<td>-182.1669</td>
<td>122.4506</td>
<td>0.148423</td>
</tr>
<tr>
<td>Cluster-Financial Services</td>
<td>-179.9492</td>
<td>150.1940</td>
<td>0.241285</td>
</tr>
<tr>
<td>Cluster-ICT &amp; Electronics</td>
<td>-100.5861</td>
<td>110.7157</td>
<td>0.371648</td>
</tr>
<tr>
<td>Cluster</td>
<td>37.3982</td>
<td>222.9233</td>
<td>0.868020</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Cluster-Physical Sciences</td>
<td>627.6556</td>
<td>191.9333</td>
<td>0.002934**</td>
</tr>
<tr>
<td>Cluster-Professional Services</td>
<td>-167.6770</td>
<td>103.8406</td>
<td>0.117991</td>
</tr>
<tr>
<td>Cluster-Transport Equipment</td>
<td>920.0974</td>
<td>124.0888</td>
<td>5.63e-08***</td>
</tr>
<tr>
<td>Cluster-Transportation &amp; Warehousing</td>
<td>-318.7822</td>
<td>151.0100</td>
<td>0.044174 *</td>
</tr>
<tr>
<td>Cluster-Wood, Apparel &amp; Related Products</td>
<td>958.1481</td>
<td>218.2037</td>
<td>0.000156 ***</td>
</tr>
<tr>
<td>Destination.state</td>
<td>199.8943</td>
<td>71.0238</td>
<td>0.009008 **</td>
</tr>
<tr>
<td>Constant</td>
<td>99.1026</td>
<td>69.5800</td>
<td>0.165817</td>
</tr>
<tr>
<td>Prob&gt; F</td>
<td>29.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.9133</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9: Dominant sectors within the five identified clusters

<table>
<thead>
<tr>
<th>Consumer Goods</th>
<th>Physical Sciences</th>
<th>Transport Equipment</th>
<th>Transportation &amp; Warehousing</th>
<th>Wood, Apparel &amp; Related Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals</td>
<td>Metals</td>
<td>Automotive OEM</td>
<td>Transportation &amp; Housing</td>
<td>Paper, printing &amp; packaging</td>
</tr>
<tr>
<td>Consumer Products</td>
<td>Rubber</td>
<td>Non-Automotive transport OEM</td>
<td>Software &amp; services</td>
<td>Textiles</td>
</tr>
<tr>
<td>Ceramic &amp; Glass</td>
<td>Business Services</td>
<td>Business Services</td>
<td></td>
<td>Wood products</td>
</tr>
</tbody>
</table>
*Sectors arranged in descending order by the amount of capital investment in the economy.

### 4.3 Cluster Analysis in Ghana

**Consumer Goods**

As shown in Table 8 above, the following sectors make up the Ghanaian consumer goods cluster: chemicals, consumer products, ceramic & glass, business services, and consumer electronics. Between 2003 and 2020, each of these sectors invested 317.2, 92.79, 23.2, 80, and 3.9, respectively, in millions of US dollars. The Chinese MNC Guangzhou Sunda International Trading Company, which entered the Ghanaian market in 2014, has the largest share by capital investment in this cluster. Investing an estimated amount of $303.1 million, The Sunda Group focuses on the manufacturing, product development, and sales of building materials such as wall tiles, rubber tiles, bathtubs, and bathroom mirrors (Blomberg). In 2015, the Sunda group invested over $77 million in setting up a new factory in Ghana's Western region. The new factory, Twyford Ceramic Factory, was expected to source 95 percent of its raw materials locally and create an estimated 1,864 jobs for Ghanaians (Sunda.com). They are also into the production of baby, women, and home care products, of which they have "over 1,000 employees in Africa and over 98 percent are local employees" (Sunda.com).
Physical Science

The Physical Science cluster has a total capital investment of $7,036 million from 2003 to 2020. The metal sector has the highest investment of $6,749 million, with the Hong Kong-based MNC Hasan International establishing a subsidiary in Ghana with $4,000 million in 2011. Hasan International deals with international logistics, real estate development, industrial parks, mineral resources development, and hotel management. Recently, due to their comprehensive strength, the Ghanaian government has appointed the multinational as the sole developer of a well-known industrial park in the Western Region (Hasan. cc).

Transport Equipment

Currently, most of the companies in this cluster are the Automotive Original Equipment Manufacturers (OEM), and its growth and impact on the Ghanaian economy is expected to increase (Mordor Intelligence). Traditionally, the Ghanaian automotive sector is mainly made up of retailers who import used cars and few new car distributors. However, since the introduction of the Ghana Automotive Development Policy in 2019, some OEMs like Nissan Motor Company, Volkswagen AG, Suzuki Motor Company, and Toyota Company have signed assembling agreements with the government (International Trade). The Ghana automotive development policy seeks to "make Ghana a fully integrated and competitive industrial hub for the Automotive Industry in the West Africa sub-region" (Moti.gov.gh). In April 2020, the government passed a Customs
Amendment Act, 2020, Act 1014, which offers corporate tax holidays between 5-10 years, and a waiver on import duty and other domestic levies. Before this policy and legislature, Ghana had a local automobile assembly line owned by Kantanka Automobile Company Limited. But due to durability concerns, patronage has been very low in the Ghanaian market (International Trade).

**Transportation and Warehousing**

Transportation and warehousing cluster involve logistics, distribution and transportation, sales, marketing, and support. Some of the growing sectors in the Ghanaian economy are software services & ICT, transportation, and warehousing. To establish itself as the gateway to the West African market, Ghana's critical challenges are the lack of infrastructure, timeliness, tracking, and tracing (pwc.com). Although Ghana’s infrastructure is more advanced than the low-income African countries, yet its "infrastructure networks generally reflect the spatial distribution of economic activity, with a greater density of transport, power, and information and communications technology (ICT) infrastructure in the south and southwest of the country than in the north" (pwc.com, p. 47). As shown in figure 1 below, since 2007, Ghana has made appreciable progress in its logistics performance index (LPI), although not significant, from 2.16 in 2007 to 2.57 in 2018 (Ipi.worldbank).
The Oxford business group argued that Ghana’s logistics environment is hampered due to the lack of warehousing capacity (Oxfordbusinessgroup.com). Ghana also has some challenges in transporting goods across its borders. An American agency once reported, "it costs seven times more to deliver the same container from Tema Port in Accra to Ouagadougou in Burkina Faso than from Newark, New Jersey to Chicago, a roughly equal distance" (Oxfordbusinessgroup.com). However, with investment from German companies such as Hapag-Lloyd in 2018 and time: matters in 2019, efficiency in the transportation sector is expected to increase. This concern is a great responsibility on the government as well. This will be discussed in Chapter 5.

Wood Apparel and Related Products
The Wood, Apparel, and Related products cluster in Ghana is dominated by the paper, printing, and packaging sector. MNCs in this cluster are all from outside Africa, specifically Sweden, United States, United Arab Emirates, South Korea, Sri Lanka, and the Netherlands. The Swedish company Greenland Resources has invested the most into the Ghanaian economy ($2800 million).
CHAPTER 5
SUMMARY, DISCUSSION, AND RECOMMENDATIONS

5.1 Introduction

The study examined the impact of greenfield investment on job creation in Ghana and which sectors support job creation the most. This chapter summarizes the research study and an overview of the collected data used in the study, a discussion, and the resulting conclusion. Recommendations for future research are also provided.

5.2 Summary

The review of relevant literature reveals the arguments of the impact of MNCs on development. Some researchers argue that with 30 percent of world trade happening within MNCs' subsidiaries, they can influence trade patterns, spur economic growth, engage in global research, and create technology spillovers (Jensen, 2006; Jawerk & Kuzel, 2015; Meleka, 1985). According to Javorcik (2015), MNCs create good jobs both from the country's and workers' perspectives. Javorcik (2015) added that workers, especially in developing economies, are more likely to receive a higher wage from MNCs than domestic firms. These foreign firms often train their workers, adding value to their skills. The effect of this on the national economy is an increase in productivity. In the development context, MNCs are the "major source of revenue in almost every developing country contributing to socio-economic development and stability" (Williams et al., 2017, p. 2070)
Developing economies became more liberalized during the 1980s due to the International Monetary Fund (IMF)/ Word Bank's Structural Adjustment Program (SAP) which required them to open the economy before qualifying for loans, some governments however opened their economies to accept the social and cultural changes associated with multinationals (Dijk & Marcussen, 1990; Meleka, 1985; Nunnenkamp, 2004). FDI to developing countries leads to improved standard of living (Cohen, 2007); reduces poverty through trade effect (Bhagwati, 2007); as poverty reduction enhances human freedom (Sen 1999); opens oppressive regimes and subversive cultures (Neal, 1994). Despite all these outcomes, researchers like Amusan (2018) object to MNCs' positive impact on developing economies, arguing that they engage in human rights violations.

5.3 Discussion

The study shows a direct impact of greenfield investment on job creation in Ghana, although significant but not very significant. The time-series data ranging from 2003 to 2020 shows the fluctuation in greenfield investment in Ghana and the relative trend in jobs created, as depicted in figure 2 below.
Despite the fluctuation in the flow of greenfield investment into Ghana, the flow of FDI (greenfield and M&A) into Ghana has been significant compared to other West African countries. As recognized in the World Investment Report (2019), "Ghana became the largest FDI recipient in West Africa, even though FDI inflows decreased by 8 percent to $3 billion" (p 37). The flow of FDI to Ghana can be attributed to the nation's reputation as one of the Sub-Saharan democratic countries, which is also open to investors by providing reliable information (Osei,
According to Barthel, Busse, and Osei (2011), "the most important factor influencing the choice of Ghana as an investment destination is the macroeconomic and political environment" (p. 399). They also argued that regulatory and institutional provisions that protect investors, provide investment incentives, and provide trade regulations and strategies are paramount to foreign firms' investment decisions in Ghana. According to Williams et al. (2017), the Ghana Investment Promotion Centre (GIPC), established in 1994 and still in operation, has been a significant factor in attracting foreign firms to Ghana. The Centre, backed by the Act, gives incentive packages such as tax exemptions and long tax holidays to investors. It also guarantees MNCs of profit, dividend, or interest transfers.

Osei (2019) noted some key challenges foreign firms face in Ghana, which could be responsible for the fluctuation in the greenfield investment shown in figure 2. These challenges include access to electricity, domestic tax issues, dealing with construction permits, trading across borders and resolving contracts and insolvency, access to land, getting credit, and employing workers (Barthel et al., 2011; Osei, 2019).

The regression analysis shows that greenfield investment has a positive relationship with job creation in Ghana. This is supported by the research work of Osei (2019) and Vacaflores et al. (2017), who found that FDI has a direct effect and is statistically significant on employment in subsidiary firms. Controlling for other variables, the study also found that Ghana’s labor force participation rate (% of total population ages 15+) has a positive and very significant impact on
employment. Although the labor force participation rate shows the availability of labor ready to produce goods and services, Barthel et al. (2011) argue that this is insufficient. Thus the quality/productivity of the labor, availability of skilled labor, the cost of labor, and the reliability of labor are the significant labor force concerns to foreign firms.

Finally, gross capital formation, which shows the commitment of the government to invest in the country's fixed-asset, has a significant impact on employment in Ghana. Consistent with Osei’s (2019) recommendation, an Integration Rural Development Program (IRDP) should be introduced, particularly in rural areas, focusing on infrastructural development, such as providing electricity, accessible road, health care facilities, and primary education. This implementation will reduce the challenges faced by foreign firms in Ghana, leading to increased FDI, subsequently creating job opportunities. It is also worth noting that such infrastructural development also creates direct job opportunities for those in the construction or infrastructural development sector.

5.4 Recommendation and Future Research

The literature review on capital investment in Ghana shows a significant effort by the Ghana Investment Promotion Centre (GIPC), whose focus has been on making Ghana a choice destination for investment and endeavor that the investment is safe and profitable to spur economic development.
Despite this great effort, the investment pattern seen from the data retrieved from fDi Markets depicted in figure 3 shows how most capital investments are concentrated in the southern region of Ghana. This could be attributed to the enhanced infrastructural development in the south, as compared to the upper region and hinterlands.

Figure 3: Map of Ghana showing greenfield investment areas from 2003-2020
Thus, to spur development throughout the country, as emphasized by the current President Nana Akufo Addo, through the One District One Factory policy, the Centre should be strategic in attracting investment to specific regions of the country. This will, however, require infrastructural development in such areas and provision of incentives to such firms that locate to such areas. Assistance from international partners in technical knowledge, grants, or loans with low interest rates can also promote Ghana's infrastructural development. In addition, effective policies to sustain the country's democracy and spread the labor force across the regions should be pursued to reduce the barriers to attracting greenfield investment to all the country regions.

Lastly, the government should focus on attracting and retaining firms in the following five clusters: Consumer goods, physical science, transportation equipment, transportation, and warehousing, and finally, wood, apparel, and related products, because they create jobs in the Ghanaian economy.

The researcher would like to incorporate primary data through questionnaires and interview significant MNCs in Ghana to supplement the conclusion drawn from secondary data. Also, future research should control for education and skill level of the Ghanaian labor force. This research thus shows the impact and significance of greenfield investment to the Ghanaian economy, and with the recommended improvements, there is the prospect for further growth and benefits.
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