

Foreign Direct Investment in The Sub-Saharan Africa: Unveiling The Pains and Gains of Domestic Firms

Abstract

This study aimed at unveiling the pains and gains of domestic firms towards Foreign Direct Investment in the Sub-Saharan Africa. The objectives of the study were to ascertain the effect of inward Foreign Direct Investment on Domestic Firms, and to establish gulfs between gains and pains of Domestic Firms in Sub-Saharan Africa relative to technology spillover, competition, environmental degradation and Global Value Chains. The study used a systematic review. This enables the drawing of experience, ideas, and similar situations of others. Search strategy was incorporated to enable the searching of literature in database of reputable journals. It was discovered that the volume of Foreign Direct Investment is high in Sub-Saharan Africa, and that it has greater positive effect on Domestic Firms. It was established that Foreign Direct Investment presents gains as well as pains to Domestic Firms in Sub-Saharan Africa relative to technology spillover, competition, environmental degradation and Global Value Chains. The study concluded that Foreign Direct Investment is not totally inimical to Domestic Firms in SSA. Thus, the study suggested that government of various countries in Sub-Saharan Africa should revisit and review their policies, where necessary, to protect their infant firms or Domestic Firms, and should intervene in the drain experienced by Domestic Firms, and cushion the negative impact of technology spillover by providing capital support and enhancing strong institutional quality.

Keywords: Foreign Direct Investment, Technology Spillover, Competition, Environmental Degradation, Global Value Chains

Introduction

Today, the world has globalized its economy, and countries have to worry less about deficits. Foreign direct investment (FDI) is at the core of globalization, providing nations with opportunities to transfer factors of production within regions and blocks. Pekarskiene and Susniene (2015) expressed that FDI and the operations of Multinational Corporations (MNEs) are thought to be the main broad routes for the expansion of the economic processes of globalization to nations with varied degrees of development. Foreign direct investment (FDI) into Africa increased to US\$46 billion in 2018, up 11 percent from the preceding year (United Nations Conference on Trade and Development [UNCTAD], 2019). The year 2020 was a challenging one for Africa. Following a decline brought on by the COVID-19 pandemic in 2020,

the continent experienced a significant resurgence in FDI. The African nations saw an inflow of \$83 billion FDI in 2021 (UNCTAD, 2022).

One of the pivotal activities of MNEs is inward investments in Sub-Saharan Africa (SSA). Inward investments are inevitable because SSA has been unable to participate in the Global Value Chain (GVC) due to little foreign investment. Boly et al. (2015) posit that the largest source of inward investments is foreign capital invested by MNEs, either to increase their own footprint or to meet a specific demand of the domestic economy.

It is evident that MNEs have channeled their investment capital into the domestic countries of SSA. Importantly, Domestic Firms (DFs) have adopted a copy strategy in which the firms amass appropriate information, absorptive capability, and technology spillover, and learn from partnerships and inward investments of MNEs. Sequel to the presence of MNEs, Olayinka and Loykulnanta (2019) affirmed that DFs majorly benefit from technology spillover. Theoretically, it is believed that FDI will be crucial in aiding DFs to witness production externalities from technology spillovers (Abereijo&Ilori, 2012; Fajgelbaum et al., 2014; Lindblad, 2015). It should be highlighted that MNEs are not in the economic development game and have little interest in spreading their proprietary technologies, and that spillover effects rely on how well DFs can absorb new technologies (Dishon&Yabs, 2017).

A wealth of literature has shown that FDI holds more benefits for developing countries, but it is certain that SSA faces some challenges based on inward investment from MNEs. For instance, Chinese firms are presumed to have ulterior motives based on the popular perception that China intends to capture Africa. Kaplinsky and Morris (2016) expressed that China's impact on Africa has been a common issue which has often marched under the slogan "Whilst China has a strategy for Africa, Africa lacks a strategy for China." This signifies that FDI through Chinese firms is a false impression and has more detriment than gains for SSA. American international oil & gas corporations are also present in SSA in large numbers, tapping heavily into her natural resources, which could have benefitted the DFs. Shell, Chevron, and ExxonMobil are considerable examples of these MNEs that have consistently repatriated profits from Nigeria's natural resources. These MNEs strongly rely on their business model (Li et al., 2022) without minding the possible negative consequences on DFs. Additionally, there is an issue of Global Value Chains (GVCs) impeding DFs in the agricultural and food sectors of SSA nations. Agriculture

and food trade have expanded over time, with a growing reliance on international production networks to supply the food and clothing that we consume. Key determinants of GVC involvement and domestic value-chain generation include trade as well as investment policies. Agro-food GVC engagement can be favorably impacted by FDI (inward and outward).

This study is concerned with how DFs have gained from FDI in SSA (the region of the African continent that is located south of the Sahara Desert). It is certain that the operation of MNEs has some impediments for DFs in SSA, but its benefits or gains are worth investigating. The study by Boly et al. (2015) found that FDI inflow serves as a significant catalyst for structural change in SSA. The objectives of the study were to:

- i. Ascertain the effect of inward FDI on DFs, and
- ii. Establish gulfs between gains and pains of DFs in SSA relative to technology spillover, competition, environmental degradation, and GVCs.

Based on the review nature of the study, other parts of text are structured into literature review, the gains of DFs from FDI, technology spillover and DFs in SSA, competition and DFs in SSA, environmental degradation and FDI in SSA, global value chains and DFs in SSA, researchmethod, conclusion and suggestions.

Literature Review

The expansion of global capital movements, particularly FDI, may be the greatest distinguishing aspect of contemporary globalization. Global capital flows are essential to the functioning of the world economy. According to Koepke (2018), they offer a variety of gains and concerns to host nations and are closely correlated with financial and economic situations, creating significant policy concerns. The enormous amount of research on global capital flows reflects the significance of these movements for the world economy.

FDI reflects the investment interest of governments, companies, and investors from foreign countries in the business and economy of host nations. It is an investment made by companies established in another nation that takes a controlling interest in companies in another country. It also acts as a substantial development accelerator and is essential to a free and effective global economic system. However, the benefits of FDI are not automatically and fairly dispersed among nations, industries, and local communities. National policies and the international investment

architecture are crucial to attracting FDI to more developing countries and maximizing its benefits for development (Organisation for Economic Co-Operation and Development [OECD], 2002). The challenges largely affect the host countries, which must establish an open, inclusive, and supportive policy environment for investment and build the institutional and human resources required to put it into action (OECD, 2002).

Domestic FDI regulations include limitations on MNCs' ability to enter and operate in the market, access to the capital market, and FDI promotion initiatives like tax breaks and subsidized manufacturing inputs. Nations have gradually replaced FDI restrictions with FDI incentives over the past two decades. The admission and operations of MNCs are restricted by formalized FDI restrictions in a similar way to how capital controls, tariffs, or non-tariff barriers do (Pandya, 2016). The admission and operations of foreign-owned companies are subject to some regulations. MNCs must create joint ventures with domestic companies that retain substantial ownership due to ownership restrictions. Operations and maintenance constraints include domestic content specifications, export quotas, and requirements for domestic representation on directorship boards (Pandya, 2016).

Growing numbers of nations in SSA, rising economies, and transitioning nations now view FDI as a driver of revenue growth, employment, and economic modernization. To attract investment, nations have liberalized their FDI laws and adopted various measures. They have discussed how to implement domestic policies in a way that will maximize the advantages of having foreigners in the home economy. With an emphasis on the broad impact of FDI on macroeconomic growth and other welfare-enhancing processes, as well as the pathways through which these advantages manifest, the research on Foreign Direct Investment for Development aims to shed some light on the second issue.

The overall benefits of FDI for developing country economies are well-documented. Given the appropriate host-country policies and a basic level of development, a preponderance of studies shows that FDI triggers technology spillovers, assists in human capital formation, contributes to international trade integration, helps create a more competitive business environment, and enhances enterprise development. All of these contribute to higher economic growth, which is the most potent tool for alleviating poverty in SSA. Moreover, beyond the strictly economic benefits, FDI may help improve environmental and social conditions in the host country by, for

example, transferring "cleaner" technologies and leading to more socially responsible corporate policies (Pandya, 2016).

The Gains of DFs from FDI

As earlier noted, Africa has become a home for many multinational corporation, and there has been consistent heavy FDI inflows for some decades now. Only 2% of all FDI stock was in Africa in 2009, and from 2009 to 2011, the region received an average net flow of 46 billions of US dollars in FDI (Boly et al., 2015). Even if they are still small, the inflows are getting fewer and less clustered both regionally and sectorally as contrasted to former years. In reality, the five primary receiving nations amounted for almost 90% of overall inflows less than ten years ago, but in 2011 this number dropped to around 50% due to an increase in FDI directed towards non-extractive sectors like light services and manufacturing (Boly et al., 2015; UNCTAD, 2012). Table 1 shows that investment inflow has grown consistently in Africa since 2017. It dropped only in 2020. It is assumed that DFs would have gained from this investment inflow into Africa. Table 2 shows that gulfs exist with respect to inward FDI and its effects in the SSA. The table indicates that inward FDI is economically malign for SSA. It is seen that the benefits on FDI outweighs its demerits in many nations of SSA. However, the case of Uganda, Lesotho, Ghana, and Niger seems to be different as the negative effect of FDI outwits its positive effect (Boly et al., 2015). On a general note, the table 2 reveals that SSA's domestic firms derive 34.4% benefits as against 24.9% negative effect suffered by the firms in the host countries.

Table 1. Investment flows to Africa

| Year | Inward (\$) | Outward |
|-------------|--------------------|----------------|
| 2021 | 83 billion | - |
| 2020 | 39,785 million | 1,592 million |
| 2019 | 47,143 million | 4,930 million |
| 2018 | 45,374 million | 8,013 million |
| 2017 | 40,176 million | 11,779 million |

Source: Kamer (2022)

The table 1 provides information on the investment flows to Africa, both inward and outward, for the years 2017 to 2021. The figures represent the amount of investment in billions of dollars. Inward investment refers to the investment made by foreign entities into African countries, while outward investment represents the investment made by African entities into

foreign countries. According to the data presented, the year 2021 recorded the highest amount of inward investment, reaching a total of 83 billion dollars. This indicates a significant increase compared to the previous year, 2020, which saw an inward investment of 39,785 million dollars. It is noteworthy that there was no outward investment from Africa in 2021.

In 2020, the inward investment decreased compared to 2019, which recorded an inward investment of 47,143 million dollars. However, the outward investment from Africa in 2020 amounted to 1,592 million dollars. Looking further back, the year 2018 witnessed an inward investment of 45,374 million dollars, while the outward investment amounted to 8,013 million dollars. In 2017, the inward investment decreased to 40,176 million dollars, while the outward investment increased to 11,779 million dollars. The data in table 1 highlights the fluctuating nature of investment flows to Africa in recent years. The inward investment has shown both increases and decreases, reflecting the changing investment landscape in the region. The absence of outward investment from Africa in 2021 suggests a focus on attracting foreign investment rather than expanding investments abroad.

Table 2. Effects of inward FDI on DFs by country in SSA

| Country | Positive | Negative | No. effects | No. obs. |
|--------------------|----------|----------|-------------|----------|
| Burkina Faso | 41.1 | 26.0 | 32.9 | 73 |
| Burundi | 35.5 | 27.3 | 37.2 | 121 |
| Cameroon | 37.6 | 27.8 | 34.6 | 133 |
| Cape Verde | 33.1 | 31.6 | 35.3 | 272 |
| Ethiopia | 27.4 | 20.2 | 52.4 | 431 |
| Ghana | 27.7 | 31.9 | 40.4 | 235 |
| Kenya | 25.9 | 19.3 | 54.7 | 316 |
| Lesotho | 7.8 | 39.2 | 52.9 | 102 |
| Madagascar | 50.0 | 20.6 | 29.4 | 102 |
| Malawi | 44.0 | 25.3 | 30.7 | 75 |
| Mali | 25.6 | 25.1 | 49.2 | 195 |
| Mozambique | 82.5 | 6.3 | 11.1 | 189 |
| Niger | 24.6 | 29.2 | 46.2 | 65 |
| Nigeria | 37.7 | 23.0 | 39.3 | 387 |
| Rwanda | 27.8 | 24.1 | 48.1 | 108 |
| Senegal | 42.8 | 23.0 | 34.2 | 152 |
| Tanzania | 32.4 | 24.7 | 42.8 | 299 |
| Uganda | 5.8 | 27.3 | 46.9 | 403 |
| Zambia | 47.3 | 33.5 | 19.2 | 203 |
| Sub-Saharan Africa | 34.4 | 24.9 | 40.7 | 3861 |

Source: Authors' elaboration on UNIDO Africa Investor Survey 2010

The table 2 presents the effects of inward Foreign Direct Investment (FDI) on Domestic Firms (DFs) in various countries within Sub-Saharan Africa (SSA). The effects of inward FDI are categorized into three groups: positive, negative, and the number of effects observed. The table also includes the number of observations for each country. Examining the positive effects, Burkina Faso recorded a percentage of 41.1, indicating that FDI had a positive impact on DFs in the country. Burundi followed with a percentage of 35.5, while Cameroon and Cape Verde reported 37.6 and 33.1, respectively. On the other hand, Lesotho showed a relatively low percentage of positive effects at 7.8, suggesting that the impact of FDI on DFs in the country was not as significant. Uganda had the lowest positive effects percentage at 5.8.

In terms of negative effects, Lesotho had the highest percentage at 39.2, indicating that FDI had adverse consequences for DFs in the country. Zambia followed closely with a percentage of 33.5, while Ghana and Burundi reported 31.9 and 27.3, respectively. The number of effects observed varied among the countries. For instance, Mozambique had a high percentage of 82.5 for one particular effect, indicating a significant impact of FDI on a specific aspect. In contrast, Lesotho reported a high percentage of 52.9 for the number of effects observed, suggesting a more diverse range of impacts from FDI. The data for Nigeria shows a positive effect percentage of 37.7 and a negative effect percentage of 23.0, indicating a relatively balanced impact of FDI on DFs in the country. The table provides insights into the effects of inward FDI on DFs in different SSA countries. It highlights variations in the positive and negative impacts, as well as the diversity of effects observed across the region. The data serves as a valuable resource for understanding the relationship between FDI and DFs in SSA and can inform policymakers and researchers in their efforts to maximize the benefits of FDI for economic development in the region.

Technology Spillover and DFs in SSA

Technology spillover is malign for DFs with respect to information and data collection. "By technology spillovers, we mean (1) firms can collect the information generated by others without having to pay for it in a market transaction, and (2) the information's creators (or current owners) have no real legal remedy if other firms use the knowledge they have received in this way" (Grossman & Helpman, 1992, p.16). In cases where there is high mobility of labour, the

movement of technical-know-how from MNEs to DFs becomes inevitable. Employees who have gained technical-know-how while working for MNEs may transfer that technology to DFs when they are hired by those firms. The behavior of foreign companies, such as their production processes and other business practices, can be used by DFs to acquire technology. Urata and Baek (2022) posited that these are known as horizontal spillover, and frequently occur when domestic and foreign firms are active in the same sector (linkage).

Naturally, concealing technology would have been the practice of MNEs in SSA. MNEs would not have invested in the development of technology expertise without special interest in human capital. Literarily, Osabutey and Jackson (2019) opined that it is anticipated that the presence of MNEs in emerging nations will be associated with the dissemination of managerial and technological expertise to DFs. Also, it is imperative to note that internalizing managerial and technological expertise would have become almost impossible for MNEs. This makes the externalization of advanced technology a common event to be expected in SSA.

DFs have the avenue to copy the technology that have been traced to huge success of MNEs. Researchers uncover evidence that many DFs in SSA "imitate" the foreign firms in their technology and strategic responses, primarily by creating identical products and utilizing similar marketing tactics or strategies (Boly et al., 2015). Technology spillover becomes beneficial to DFs when the demonstration effect is substantially positive. Also, the presence of MNEs heightens the level of competition and drives DFs to upgrade their technology; leading to competitive impact. DFs in SSA become more productive today as a result of MNEs' technology spillover to them.

Competition and DFs in SSA

Many MNEs have found SSA as a potential market for massive production in mother country. From the implicit point of view, FDI inflow is driven by the motive to make SSA a dumping site. For example, the reasons for excess production in China is the utilization of available labour in their large number, and that Chinese MNEs have to crowd out the excess production from their country to strategically improve the economy of the mother country. Thus, Chinese MNEs have cheap factors of production and can afford to sell at competitive price in the SSA. This possibly culminate into price war for DFs. There is possibility that DFs heavily feel the drain due to issues around economies of scale.

DFs face unhealthy competition due to dumping and price war among others. However, competition between MNEs and DFs is imperative to drive in economic progress. In the case of Nigeria, the competition between MTN and GLO has made the telecommunication industry to witness consistent improvement. The competition between these firms was moderated by the Nigerian Communications Commission. Competition between MNEs and DFs is economically viable for countries.

It is uneconomically viable when MNEs nurture the intent to fizzle out DFs. MNEs incur marginal loss to create unhealthy competition for DFs. The MNEs have the economic capacity to sell below cost of production for a long time, and can incur marginal loss if their intent is to drive out DFs and gain monopoly. Although, it has not been empirically proven that MNEs transfer sophisticated technology to Africa to create unhealthy competition for DFs. According to a major research theme, new infrastructure technologies like the Internet and mobile phones are delivered within a regulatory framework that fosters market competition and encourages private capital (Amankwah-Amoah, 2014). The strategy behind the transfer of sophisticated technology by MNEs is that infant firms may not be able acquire the technology or copy technical-know-how based on limited economic or financial power, and there is no strict regulation to moderate the activities of MNEs in Africa. Maintaining Chinese companies' competitive edge in Africa does not imply a need to shift technology and knowledge to indigenous partners (Osabutey & Jackson, 2019).

Environmental Degradation and FDI in SSA

The expansion of global capital movements, particularly FDI, may be the greatest distinguishing aspect of the most contemporary globalization. The popular expectation is that FDI will be instrumental to progressive economies of countries in the SSA. In addition to supplying much-needed financial resources, Dada and Akinlo (2021) posited that FDI also transfers vital technology and technical know-how which supports local investment by DFs. The irony may be that countries of the Saharan Africa are perceived a potential market for huge returns, and investments in these countries are not likely conceived with the original motive of supporting local investment by DFs.

It is no newer that the most pressing issues facing the globe today is the environmental problems. Environmental degradation has become quite severe and destructive in the Saharan Africa. This

is due to the "avalanche" of developmental challenges, which also include unemployment, a decline in poverty, and an unsettling and turbulent political climate (Osabuohien et al., 2013). The impact of environmental degradation could have been minimal if MNEs are committed to Corporate Social Responsibility (CSR) in the SSA. Environmental degradation is associated with the basic fact that FDI has led to the increased production and the consumption of energy in the SSA. This is also explained by the Environmental Kuznets Curve (EKC) theory as one of the environmental degradation around the globe (Grossman & Krueger, 1993).

Some American firms have contributed to terrifying oil spillage on the riveries in the SSA. Over time, according to Iruoma (2020), oil exploration has had a detrimental effect on the physical environment of the towns that contain oil in Nigeria and has accelerated the rate of environmental degradation. Osabuohien et al. (2013) argued that there is little empirical proof that MNEs have a negative impact on environmental degradation in the SSA. Some DFs get their supplies from domestic source, particularly from the agricultural sector, but evidence abound that construction and oil multinationals have caused so much benign to the agricultural sector in the SSA. This is true because the external intrusion of MNCs have caused environmental degradation; leading to poor host communities' water quality and availability of arable land.

Global Value Chains and DFs in SSA

Global Value Chains (GVCs) have been a subject of importance in previous researches (Costinot et al., 2013; Del Prete & Rungi, 2017). GVCs, in which the various phases of the manufacturing process are distributed across many nations, are the policy framework within which trade, investment, and international production are progressively organized. Lately, trade policies' implications on the development of GVCs have been theorized and practically examined (Gereffi et al., 2021; Ruta, 2017). However, value chain issues are topical in the discussions of international trade agreements like Trans-Pacific Partnership (TPP), the African Continental Free Trade Area (AfCFTA), and the North American Free Trade Agreement (NAFTA), which raise the threat of protectionism to its highest level (Balié et al., 2018).

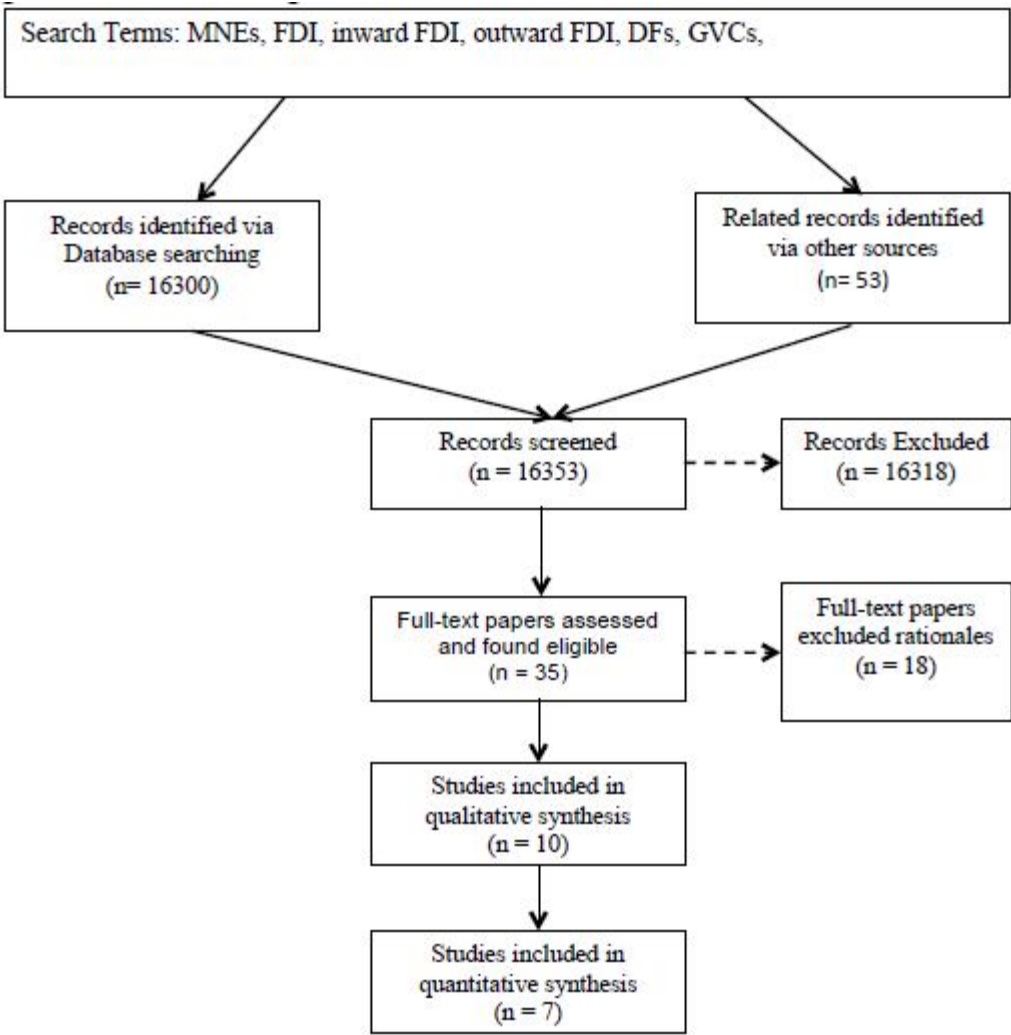
Countries in the SSA region may be questioned with respect to involvement in GVCs. According to Aggarwal (2010), only market forces cannot ensure a successful integration of DFs in the GVC. Evidence from Dollar, Ge, and Yu (2016) suggests that membership in the GVC is influenced by institutional quality. The institutional quality of SSA countries appears very low

for holistic participation in GVC. The paper assesses institutional quality according to development level in African countries and concludes that weak institutions, as evaluated by the World Bank's Rule of Law index, are a problem in African countries. This helps to explain Africa's comparatively low involvement in GVCs. Instead, African countries are accustomed with extra-regional trade. SSA trails other parts of the world in terms of joining GVCs. Importantly, the percentage of foreign value-added (FVA) in SSA nations' exports is one sign of how well its economy has integrated into the world market (Copley, 2017). These nations have FVA below average (50%) among developing nations of the world

ResearchMethod

Ample scholarly literature is available on the subject “FDI and DFs”. The study used a systematic review to acquire a thorough understanding of the topic and support relevant facts. The best strategy to draw from experience, ideas, and similar situations of others to the current study issue is to review pertinent and academic literature. The approach's fundamental goal is to make it easier to attain the research objectives. Search strategy was incorporated to enable the searching of literature in database of reputable journals. Comprehensive search was employed using google scholar, sciencedirect, sage and *Web of Science* (Arts and Humanities Citation Index and Social Sciences Citation Index). A different technique used was forward/backward searching, which requires citing sources in publications. To ensure all pertinent qualitative research had been found, manual searches of the most pertinent journals (on FDI) and reference lists were carried out. Figure 1 shows the flow chart of the number of studies reviewed.

Figure 1: Prisma Flow-diagram of Relevant Literature Searched



Source: Authors

Conclusion and Suggestions

The review indicates that Sub-Saharan Africa (SSA) experiences a greater inward inflow of Foreign Direct Investment (FDI) compared to its outward flows. Furthermore, it is evident that FDI is not entirely detrimental to Domestic Firms (DFs) in SSA. Numerous pieces of evidence have shown that FDI can have substantial positive effects on many countries in the region. However, it is worth noting that certain countries, such as Uganda, Lesotho, Ghana, and Niger, have encountered negative consequences or experienced no significant effects from inward FDI. This may be attributed to a poor policy framework or inadequate institutional quality.

Technology transfer plays a crucial role in the operations of DFs, and inward FDI has been recognized for its contribution in this area, revolutionizing the capabilities of DFs. However, it is imperative for governments in SSA to manage the potential drawbacks associated with technology transfer by multinational enterprises (MNEs) to prevent unhealthy practices. Some MNEs may seek to monopolize the market and withhold critical technical know-how and information. The high cost of acquiring advanced technology also poses a significant challenge for infant firms with limited resources. DFs can benefit from technical know-how by attracting employees from MNEs, and the positive demonstration effect of technology spillover can be substantial.

Countries in SSA often exhibit poor institutional quality, which hampers their participation in Global Value Chains (GVCs). Ideal conditions for competition, which could drive economic growth, are frequently undermined by powerful MNEs that influence leadership choices in the region. Some MNEs exploit local natural resources for production and easily repatriate profits and capital, possibly due to their political influence. Government policies on competition play a crucial role in safeguarding the interests of DFs, as unhealthy competition can be detrimental to emerging firms. The expansion of global capital movements can be linked to the observed environmental degradation in SSA. The increased transfer of technology by MNEs, combined with their operational practices, has had adverse effects on the environment. DFs in the agricultural industry, particularly in rural settlements, have suffered from carbon emissions and oil spills. Environmental degradation in SSA has become a significant concern with severe consequences.

In conclusion, while inward FDI has demonstrated positive effects on many countries in SSA, the complexity of its impact necessitates careful consideration. Policymakers should prioritize managing the potential negative consequences associated with technology transfer and promote a competitive environment that safeguards the interests of DFs. Additionally, efforts to address poor institutional quality and mitigate environmental degradation are vital for sustainable development in the region. Thus, the study suggests that:

- i. Government of various countries in SSA should revisit and review their policies, where necessary, to protect their infant or DFs. The policies should incorporate production

subsidy, tax incentive via tax holidays and strict regulation on the excessiveness of MNEs in SSA.

- ii. Governments in SSA should intervene in the drain experienced by DFs, and cushion the negative impact of technology spillover by providing capital support and enhancing strong institutional quality. This will enable DFs to take part in the GVCs.
- iii. The likelihood that DFs will holistically benefit from FDI is low. Thus, DFs' strategic reactions to FDI should be spurred by strategic thinking and action research on the ways to make substantial contribution to the economic growth and favourably compete with MNEs.
- iv. Governments in SSA should wake up to the reality that MNEs will always repatriate both profit and capitals, and as such should come up with unbeatable regulations that can commit the MNEs to full environmental development. This will have positive implication on the operations of DFs, particularly those in the agricultural industry.

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