



THE DETERMINANTS AND IMPACT OF FOREIGN DIRECT INVESTMENT ON THE ECONOMIC GROWTH OF SIERRA LEONE

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Abstract:

This article aims to examine the factors that influence foreign direct investment (FDI) and its effects on Sierra Leone's economic expansion. Understanding the elements that draw foreign direct investment (FDI) and its overall effects on the recipient country's economy is crucial as FDI has long been acknowledged as a driver for economic development in developing nations. This study used a mixed-methods approach to examine the factors influencing foreign direct investment (FDI) in Sierra Leone by analyzing both qualitative and quantitative data. Interviews with important stakeholders, including government officials, foreign investors, and industry experts, are used to analyze factors such as political stability, institutional quality, market size, natural resources, and infrastructure. Secondary data are statistically analyzed to determine the importance of these determinants. In addition, the study evaluates how FDI affects Sierra Leone's economic expansion. Analyzing macroeconomic data like GDP growth, employment rates, trade patterns, and technology transfer are necessary for this research. The research offers a thorough understanding of the direct and indirect effects of FDI on the nation's economy by utilizing both descriptive and econometric methodologies. The results of this study have added to the body of information already available on foreign direct investment (FDI) and its effects on economic growth in developing nations, with a particular emphasis on Sierra Leone. Policymakers, government organizations, and investors will be able to create focused strategies to draw in and maximize the advantages of FDI for sustainable economic development with the help of the results, which offers insightful information.

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1. Introduction

Because foreign direct investment (FDI) plays a significant role in the process of globalization, both developed and developing countries have been vying for large FDI inflows because of the positive effects that FDI has on employment, economic growth, and national development (UNCTAD, 2014). FDI refers to an investment made overseas that is either in the form of a minimum share acquisition of an existing firm or the establishment of a new manufacturing facility (Bannock *et al.*, 1998, p. 106; Ethie, 1995, pp. 303–4)¹. "The existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the direct investor on the management of the enterprise" (IMF, 1993, p. 86) distinguishes foreign direct investment (FDI) from foreign bank lending (FBL) and foreign portfolio investment (FPI). A government agency, a financial institution, a business, an MNC, or an individual can all be direct investors. The key to MNCs² is foreign direct investment (FDI) because a portion of their output is done outside. Moreover, MNCs account for over 95% of global FDI flows, making them the primary source of FDI. Prior to the global financial crisis of 2008–2009, total global FDI flows were estimated to be around US\$ 1.90 trillion.

The United Nations Conference on Trade and Development (UNCTAD) first released official data on FDI in 1970, a year in which global FDI flows accounted for US\$ 13.26 billion. Following this time, there has been a global growth in FDI flows, reaching US\$ 1.76 trillion in 2015. Historically, rich nations have significantly benefited from foreign direct investment (FDI) inflows. However, in 2012, developing nations recorded a record 52 percent of all FDI inflows worldwide, according to the World Investment Report (2013). Africa has not been a particularly appealing location when compared to other regions, such as Asia, despite the rise in foreign direct investment inflows to emerging nations. For example, according to UNCTAD data, between 1990 and 2015, Asia's share of foreign direct investment (FDI) inflows into developing economies climbed from 66.3 percent to 70.7 percent, while Africa's proportion fell from 8.2 percent to 7.1 percent, respectively. In 1970, the continents of Asia and Africa accounted for 6.4% and 9.6% of FDI flows worldwide, respectively. While Asia saw a gain of 27.5 percent during the same period, Africa's share fell to 4.6 percent in 2009. Moreover, in 2015, the shares of worldwide FDI that came from Africa and Asia were 3.1% and 30.7%, respectively.

FDI is known as "greenfield investment" when establishing a new site overseas is funded by capital acquired in the home nation of the direct investor (Lawler and Seddighi, 2001, p. 363, note 1). The phrase "greenfield FDI" is now used to refer to any foreign investment that creates new, productive assets. Whether money has been transferred from the investor's home or source country to the host country is irrelevant. Cross-border or international mergers and acquisitions (M&A) are another form of FDI.

The transfer of ownership of local economic activity and assets from a domestic to a foreign business is known as a cross-border M&A (United Nations, 1998, pp. 212-4). A nation may gain greater immediate advantages from greenfield foreign direct investment (FDI) than from M&A FDI. One of the explanations is that greenfield FDI has a direct, immediate, and favorable effect on capital stock and employment. The establishment of a new industry in a foreign nation result in the creation of jobs and an increase in the latter's capital stock. These immediate effects might not be noticeable in terms of M&A FDIs.

1.1 Background of the Study

It is important to place Sierra Leone by examining its geography, history, and economics in order to gain a deeper understanding of the nation. The fundamentals that make the nation a good destination for foreign direct investment have been identified by this quick assessment. The west African nation of Sierra Leone has a land area of 71,740 square kilometres. The Republic of Guinea borders it to the north, west, and north-east; the Republic of Liberia borders it to the east and south-east; and the Atlantic Ocean borders it to the south, west, and west. The nation has roughly 300 kilometers of coastline. It is located between longitudes 10' 30'W and 13' W and latitudes 7' N and 10' N. Numerous estuaries, short-distance navigable rivers, and an abundant mangrove plant species are what distinguish the shoreline. Alexander (1961:1).

The Exclusive Economic Zone (EEZ) of Sierra Leone is 200 nautical miles (nm) in circumference. According to Thulla, the country's physical configuration provides ample opportunity for foreign direct investment (FDI) to thrive, particularly in the fishing industry. Thus, the FDI that was drawn in would promote economic growth. Pedro da Cintra, a Portuguese explorer, gave the country the name Sierra Leone, which translates to "Lion Mountains" when he visited in 1462 (Alie, 1990:4). The establishment of a colony at Freetown by Britain in 1787 for slaves banished from both Britain and the United States, as well as slaves saved from shipwrecks, marked the beginning of Sierra Leone's political history as it exists today (Kilson, 1966:8). Local chiefs sold the land for the first colony, which later became the capital city. The nation was designated as a Crown Colony in 1808, and the interior was designated as a British Protectorate in 1896 (Sibthorpe, 1970:6). In accordance with the 1924 Constitution, the lawmaking council's inaugural elections were conducted. In 1951, a new constitution was approved, and in 1953, a ministerial system was implemented. Former doctor Sir Milton Margai, the head of the Sierra Leone People's Party (SLPP), served as prime minister in 1960 after being named chief minister in 1954. On April 27, 1961, the nation officially separated from the British. (Kilson, 1966). There was a violent civil war in the nation from 1991 to 2002, which lasted for around 11 years.

1.2 Statement of the Problem

Since the civil war ended in 2002, Sierra Leone, a country in West Africa, has faced substantial economic issues. Although the sale of natural resources, like minerals and

diamonds, is the nation's primary source of income, it has had difficulty luring and keeping foreign direct investment (FDI), which might broaden its economic base and promote sustainable growth (Conteh & Mendy, 2017).

Data indicates that when compared to other nations in the region, FDI inflows to Sierra Leone have been comparatively minimal. In contrast to the sub-Saharan African average of 3.1%, foreign direct investment (FDI) inflows to Sierra Leone in 2019 amounted to just 1.6% of the country's GDP, according to the World Bank (2020). According to Osabuohien *et al.* (2019), this shows that Sierra Leone has not been able to take advantage of the possible advantages of FDI, which include knowledge transfer, the creation of jobs, and greater productivity.

Investigating the factors and effects of FDI on Sierra Leone's economic expansion is the goal of the study. Its specific goals are to determine the primary drivers of foreign direct investment (FDI) into the nation and to evaluate the degree to which FDI advances Sierra Leone's economic growth (Mendy & Conteh, 2018).

There is not much research on foreign direct investment (FDI) in Sierra Leone; most of it concentrates on the larger West African continent. According to studies, the region's FDI is significantly influenced by elements including political stability, infrastructural growth, and the availability of natural resources (Anyanwu, 2012; Anyanwu & Erhijakpor, 2014). However, not much research has been done on the unique obstacles and possibilities Sierra Leone faces in luring and utilizing FDI (Conteh & Mendy, 2017). By offering a thorough examination of the factors that influence foreign direct investment (FDI) and its effects on Sierra Leone's economic growth, this study seeks to close this knowledge gap.

1.3 Objective of the Study

The general objective of this study is to examine the determinants of FDI on the economic development of Sierra Leone. However, the specific objectives are to:

- Identify the determinants of FDI in the economy of Sierra Leone,
- Establish the relationship between FDI and economic development,
- Evaluate the impacts of FDI on the gross domestic product, exchange rate, resources, trade and capital formation,
- Identify the challenges militating against the efforts of the Government to attract FDI for the economic development of Sierra Leone,
- Proffer strategies to attract adequate FDI for the economic development of Sierra Leone, a post-conflict setting.

2. Review Related Literature

Studies on related study on foreign direct investment (FDI) and economic development have been conducted in the last few years. These investigations include those by Aremu, Okafor, Nabende, Goldberge, and Rania, as well as Charles Harvey *et al.* According to Goldberge (2008:33), foreign direct investment (FDI) is a key driver of economic growth

and a necessary component of an efficient and open international economic system. The host economy is exposed to best practices in technology through the intermediation of foreign companies that enable them to break down the entire production process of goods and services into discrete stages. It also follows each phase in a setting where high output is encouraged for better economic development and efficient manufacturing is made possible by local factor endowment. On the other hand, according to OECD (2004:3), a state's socio-economic framework must be solidified by prolonged and steady economic development to attract more significant foreign direct investment into its economy.

A study on FDI attraction and negotiation with multinational corporations in Nigeria was published by Aremu in 2005. Even though his writing is quite rich and educational, it was unable to conceptualize the word FDI in a way that would have sufficiently informed his audience. As a result, the effort did not thoroughly address the idea of FDI to promote a broader understanding. Foreign Investment in South Africa: The Policy Debate was the study's title conducted by Charles Harvey *et al.* The relationship between FDI and economic development in terms of, among other things, production output, efficiency, revenue, and employment creation was not the aim of this study. It was centered on criticism of foreign direct investment (FDI) and how it was a major element in upholding South Africa's then-repressive apartheid government.

The Nigerian experience with political instability and economic development, however, was covered in Okafor's 2008 article. His writings reflected how Nigeria's political instability made it impossible for the country's numerous economic reform programs to be implemented. When FDI was compared throughout the study, however, no statistical evidence supported the assertion that Nigeria saw extremely low FDI inflow at some times and increased FDI at other times, which had a favorable effect on economic development. In his publication "Globalization, Foreign Direct Investment, Regional Integration, and Sustainable Development: Theory, Evidence, and Policy" delves deeply into the ways that globalization is promoting foreign direct investment (FDI) around the world, both for positive economic reasons and for negative ones, like environmental damage, foreign investors' disregard for the cultures of their host countries, and human insecurity. The study failed to establish sufficient connections between foreign direct investment (FDI) and economic development, primarily due to criticism stemming from proponent and opponent perspectives of FDI brought about by globalization. Many of the international companies that supplied the typical attributes of foreign direct investment in Sierra Leone are included in the Central Bank of Sierra Leone Report (2007). In addition to flows by sector and origin, the report provides the total FDI inflows. The report provided FDI with information on Sierra Leone's historical trajectory.

2.1 Theoretical Framework

John H. Dunning's eclectic paradigm theory serves as the research's compass. It is sometimes referred to as the OLI-Framework or OLI-Model. One idea that has been used to analyze how FDI is drawn to a host nation is Dunning's (1993:6) theory. According to the hypothesis, foreign direct investment (FDI) is influenced by the relative location

advantages of different countries for specific sectors. Transnational Corporations (TNCs), whose operations heavily rely on these resources, are drawn to areas rich in specific resources. Either brown field or green field investments could be made. The hypothesis makes it abundantly evident that some nations are endowed with resources that draw foreign direct investment. The theory was heavily criticized by Cliff Wymbs and Lilach Nachum, two academics. According to them, an investing firm's size, inventions, and duration of operation, among other things, influence how well-regarded it is and how easily it may expand its activities overseas. Certain location advantages have varying worth for different firms since these features differ from one another. Because of this, the variables influencing a company's capacity to expand internationally vary throughout transnational corporations (TNCs) and are not independent of the traits of the investing firms. These researchers' critical approach is based on the claim that various firms have different values for a given place because of differences in their capabilities, assets under control, and strategic goals. However, this research suggests that the critique might only apply to international investments made by industrialized nations.

2.1.1 Heckscher-Ohlin Model

The Heckscher-Ohlin model, one of the earliest theories of foreign direct investment, describes capital flows in terms of the trading nations' comparative advantages (capital endowment and cost of means of production). The model is built on two countries, two factors of production, two perfectly competitive items, and factor costs, as Faeth (2009) elucidates, among other things. Where capital is relatively abundant or scarce, respectively, the rate of return on capital is lower or higher. Therefore, each nation will export and import comparatively abundant and scarce items, respectively, as a result of international commerce, which will equalize factor prices. Until factor prices equalize, capital is transferred abroad where returns are higher than labor returns. This occurs in the absence of international trade.

2.1.2 The Hymer-Kindleberger Hypothesis

Because the aforementioned theoretical method could not account for the flows of foreign direct investment, Hymer (1976) was among the first to criticize it. Instead, he uses market imperfection as the foundation for his FDI theory of industrialization. Kindleberger (1969) builds a hypothesis based on monopolistic advantage by refining his original concept. The authors contended that foreign companies who invest overseas encounter certain drawbacks when compared to their domestic competitors. These disadvantages include inadequate local customer preferences, legal systems, and institutional framework knowledge. After the investment, these drawbacks need to be counterbalanced by having specific ownership (company-specific) advantages, including nonmarketable technology, economies of scale, less expensive sources of capital, marketing and management expertise, brand names, or cheaper sources of finance (Kindleberger, 1969).

2.1.3 Product Cycle Hypothesis

Vernon (1966), as its name implies, breaks down the process of developing a product into three stages: the inventive, maturity, and standardization stages of manufacturing. The interaction between certain advantages (such as superior management, new process discovery, and product differentiation) to determine the production, exportation, and international investment process of oligopolistic firms is explained by the product life cycle hypothesis, as Lall (1976) emphasizes.

2.1.4 Oligopolistic Reaction Hypothesis

According to Knickerbocker (1973), FDI is explained by an oligopolistic response of enterprises. The author conducted a test using a sample of 187 American multinational businesses in order to arrive at this conclusion. The outcome explains why these companies are "bunching up" in foreign markets, implying that oligopolistic industry businesses use the "follow the leader" tactic to preserve market share (Agarwal, 1980).

2.1.5 Internationalization Theory

The internalization thesis validates the idea of the firm that Coase (1937) had previously explored. In the latter, the author contrasted some transaction costs between companies and proposed that internalizing parts of a firm's specialized operations could increase the firm's efficiency due to market failures. Buckley and Casson (1976) used this data to examine certain companies' internal production processes. After finding evidence of market failures through their examination, they concluded that internalizing a firm's intermediate products (such knowledge) is the best way to maximize its efficiency.

2.3 Empirical Literature

In light of the empirical research on this subject, it is essential to highlight that certain writers have focused on developing nations, such as certain Asian and African nations. At the same time, other studies are country-specific (like Nigeria) or regionally based (like West Africa). Accordingly, the empirical research that will be discussed in this section will only focus on developing nations while accounting for the impact of institutional, trade openness, financial sector growth, and human capital.

2.3.1 Studies Based on Developing Countries

Based on the authors' Institutional FDI Fitness Theory, Wilhelms and Witter (1998) investigated the factors influencing net FDI inflows into 67 emerging economies between 1978 and 1995. The econometric estimation revealed that government and market variables were the most important predictors of foreign direct investment (FDI), and the study was only focused on country-specific factors. The authors define market fitness as the availability of finance and energy, low taxation, high trade volumes, and high urbanization. In contrast, governmental fitness is defined as an open economy with few trade and exchange rate regulations, strong rule of law, and low corruption. The researchers emphasized the importance of the human factor in this context and said that

every nation can benefit from it and enhance its flow of FDI because it is not influenced by variables like population or market size.

2.4 Integration and Critical Analysis of the Different Contributions to the Literature

The authors of the Hymer-Kindleberger hypothesis predicated their justifications for foreign direct investment (FDI) on ownership or firm-specific advantages that investing firms possess and that can only be utilized in an imperfect market. Their idea did not thoroughly explain the topic, even though it offered an alternate explanation of FDI to the earlier research. Even though Hymer was the first to explain foreign direct investment (FDI) in imperfect markets, he did not specify the circumstances in which such investment occurs. Thus, the product life cycle theories and internationalization tried to explain why and where foreign direct investment (FDI) happens. Vernon also emphasized the significance of technological and innovative variations among nations concerning FDI. The policies of the host countries were only shown to be relevant in a few theoretical frameworks, such as the eclectic paradigm and internalization theory. The former authors acknowledged government operations in overseas markets but did not elaborate on how these actions would affect different industries. Conversely, the locational benefits (country-specific characteristics) of Dunning's Eclectic Paradigm demonstrate the significance of the host country's policies. An investment company might have some ownership advantages. However, it would be difficult or impossible to take advantage of those advantages in the host nation if the conditions and policies of the host country were not considered.

3. Research Methodology and Model Estimation

3.1 Model Specification and Description of Variables and Data

In line with the discussions in the literature and based on the availability of data for Sierra Leone over the 1980 – 2015 period, the general model of the study is specified as follows:

$$FDI = f(GDPPC, GFCF, INF, NAT, OPEN, CRED, DUM) \quad (1)$$

Where: FDI denotes net foreign direct investment inflows as a percentage of GDP.

Most empirical research on foreign direct investment (FDI) use a proxy to describe market size, indicating that the host country's characteristics are commonly acknowledged as important factors influencing inbound FDI. According to its theory, international companies need a sizable market to use their resources efficiently and exploit economies of scale. Chakrabarti (2001). In order to estimate the market size of the host nation, previous authors have typically used real GDP growth, per capita GDP, urban population as a percentage of total population, and per capita GDP growth. Most studies have found that these factors positively and significantly impact foreign direct investment (FDI), though a small number of them have found it to be insignificant. GDP

per capita is considered in this analysis as a gauge of market size, and it is anticipated to have a favorable effect on FDI inflows.

The literature emphasizes the importance of the host nation's infrastructure (GFCF) as one of the elements influencing the choices made by foreign investors. The quality of the host country's infrastructure has been considered in various empirical studies, where it is thought to have a favorable impact on foreign direct investment (FDI) due to its benefits for foreign investors in terms of cost reduction and profit maximization. In order to investigate the relationship between infrastructure development and foreign direct investment inflows into Sierra Leone, the present study has included the most widely used proxies for infrastructure, namely the number of mainline telephone subscribers per 1000 population and gross fixed capital formation as a percentage of GDP (World Bank, 2017). The latter includes land improvements, the construction of roads, railways, schools, and commercial and industrial buildings. It is anticipated that FDI and the nation's degree of infrastructure development will have a favorable correlation. According to the research, one of the most significant markers of macroeconomic instability is the rate of inflation, or INF. It is reflected in the annual growth of the consumer price index, and a negative correlation between inflation and foreign direct investment (FDI) is anticipated since high inflation increases economic uncertainty in the host nation. Therefore, FDI inflows are higher when an economy is stable and frequently associated with lower uncertainty.

The importance of natural resource endowment (NAT) as one of the key factors influencing foreign direct investment (FDI) to developing nations has been highlighted in the literature. This is especially relevant to foreign direct investment (FDI) seeking natural resources, notably to Sub-Saharan Africa. A number of proxies have been employed in the literature, including fuel exports, the percentage of GDP that is attributable to natural resource rent, and the proportion of oil and minerals in total goods. As with other empirical studies, the latter is included in our study to capture the host country's endowment in natural resources, which is expected to have a favorable effect on FDI attraction.

An economy's level of openness to foreign commerce (OPEN) may indicate that the nation in issue is implementing exchange rate and trade-friendly policies. The trade-to-GDP ratio, which has been widely utilized in earlier research, will be included as a stand-in to indicate how open Sierra Leone's economy is to outside commerce. It has been well documented in the literature that trade openness positively and considerably impacts foreign direct investment (FDI), with more open economies attracting more significant levels of inward FDI. On the other hand, if a "tariff jumping" strategy drives FDI in developing nations, then trade openness and FDI would be inversely correlated, according to studies by Asiedu (2002) and Blonigen (2002).

The literature has also acknowledged that the growth of the banking sector is crucial for drawing in FDI. Thus, the variable CRED, which represents the percentage of GDP that goes toward domestic lending to the private sector, is included in our research to capture the effect of financial sector development on foreign direct investment. The

fact that financing is available to the private sector implies that prospective investors would already be aware of the possibility of getting more loans, encouraging them to make larger investments. It is anticipated that domestic lending to the private sector and inward FDI will positively correlate due to the favorable impact it has on foreign investors' mindsets.

Foreign investors consider a number of factors before investing, including the political stability of the host nation, in addition to the previously listed factors. One location-specific element that influences inward FDI, for example, is political stability, according to Dunning (1998). Similarly, less foreign direct investment (FDI) entering emerging nations is typically ascribed to political instability in empirical research. To account for the effect of political instability on attracting foreign direct investment (FDI) to Sierra Leone, we have incorporated a binary variable (DUM) that represents the impact of the civil war (zero otherwise, and 1 from 1991 to 2002). With the exception of the binary variable, all of the study's annual time series data for Sierra Leone from 1980 to 2015 came from UNCTAD's and the World Bank's African Development Indicators (2017) database. Similarly, we collected data from the Corruption Perceptions, Global Competitiveness, and Economic Freedom indices for comparative analysis.

3.1 Technique of Analysis

3.1.1 Statistical and Stationarity Analysis

Prior to the time series econometric analysis, statistical analysis was conducted to determine the descriptive statistics and strength of the relationships between the variables we selected. Because the empirical analysis is based on annual time series data, which may produce spurious regression results if non-stationary, the study uses the Phillips-Perron unit root test and the Augmented Dickey-Fuller test to verify that the variables are stationary. Apart from guaranteeing the resolution of the non-stationary problem, the unit root test may also be pertinent in determining the suitable study design for the empirical investigation. The bounds testing estimation technique was chosen because it is the appropriate method when there is a mixture of $I(0)$ and $I(1)$ variables, but none of them are $I(2)$. The stationary testing confirms that while some of the underlying variables are integrated of order zero $I(0)$, others are of order one $I(1)$.

3.1.2 The Bounds Testing Approach

The autoregressive distributed lag (ARDL, also known as ADL) model, created by Pesaran *et al.* (2001), was utilized to ascertain the presence of a relationship level between FDI and its drivers. According to the authors, the ARDL approach is applicable regardless of whether the explanatory variables are purely $I(0)$, $I(1)$, or mutually cointegrated. This sets it apart from other estimation techniques like those used by Engle and Granger (1987) and Johansen (1991, 1995) to test for the existence of a relationship between variables in levels. They argued that the bound's testing method is appropriate for small sample size estimation in addition to producing reliable estimates of the long run model.

According to Pesaran *et al.* (2001), the modeling of equation (1) to a Conditional Error Correction Model (ECM) is necessary for the limits testing estimation approach. In order to apply the ARDL estimation approach, the researcher took three steps. First, she tested the significance of the lagged levels of the variables in the subsequent conditional ECM in order to estimate the long-run connection between FDI and its determinants.

$$\begin{aligned}
 \Delta FDI_t = & \lambda_0 + \theta_1 FDI_{t-1} + \theta_2 GDP_{t-1} + \theta_3 GFCF_{t-1} + \theta_4 INF_{t-1} + \theta_5 NAT_{t-1} + \theta_6 OPENT_{t-1} + \\
 & \theta_7 CRED_{t-1} + \delta DUM_t + \sum_{i=1}^p \alpha_1 \Delta FDI_{t-i} + \sum_{i=0}^q \alpha_2 \Delta GDP_{t-i} + \sum_{i=0}^r \alpha_3 \Delta GFCF_{t-i} + \sum_{i=0}^s \alpha_4 \Delta INF_{t-i} \\
 & + \sum_{i=0}^t \alpha_5 \Delta NAT_{t-i} + \sum_{i=0}^u \alpha_6 \Delta OPENT_{t-i} + \sum_{i=0}^v \alpha_7 \Delta CRED_{t-i} + \epsilon_t \quad (2)
 \end{aligned}$$

The optimum lagged orders of equation (2) above were selected based on the Akaike Information Criterion (AIC). The existence of the long-run relationship was confirmed by the F-Bounds test, which consists of lower and upper bounds critical values, $I(0)$ and $I(1)$, respectively, based on the following Null and Alternative hypothesis.

$H_0: \theta_1 = \theta_2 = \theta_3 = \theta_4 = \theta_5 = \theta_6 = \theta_7 = 0$ (No levels relationship)

$H_1: \theta_1 \neq \theta_2 \neq \theta_3 \neq \theta_4 \neq \theta_5 \neq \theta_6 \neq \theta_7 \neq 0$ (Evidence of levels relationship)

In the event that the computed F-statistic value is above the upper bound critical value and below the lower bound critical value, respectively, it indicates that there is a verified long-term association between the variables. If the calculated F-statistic value is in between the lower and upper boundaries of the critical values, the result is equivocal and more information about the variables' order of integration is needed before drawing a firm conclusion (Pesaran *et al.* 2001). The second step is estimating the long-run model, as shown in equation (3), after a long run relationship between FDI and the independent variables has been established. It is significant to note that the econometric software (Eviews 7.0) estimates both the bounds test and the ARDL long run form jointly.

$$\begin{aligned}
 & \begin{matrix} P & q & r & s & t \\
 & i=1 & i=0 & i=0 & i=0 & i=0 \\
 & u & v & & & \end{matrix} \\
 \text{FDIt} = & \lambda_0 + \sum_{i=1}^P \alpha_1 \text{FDIt-i} + \sum_{i=0}^q \alpha_2 \text{GDPPCt-i} + \sum_{i=0}^r \alpha_3 \text{GFCFt-i} + \sum_{i=0}^s \alpha_4 \text{INFt-i} + \sum_{i=0}^t \alpha_5 \text{NATt-i} + \\
 & \sum_{i=0}^u \alpha_6 \text{OPENT-i} + \sum_{i=0}^v \alpha_7 \text{CREDt-i} + \gamma \text{DUMt} + \epsilon_t \tag{3}
 \end{aligned}$$

Finally, the Error Correction Model is presented below, where Δ denotes the first difference operator and the coefficients $\psi_1, \psi_2, \psi_3, \psi_4, \psi_5$ and ψ_6 represent the short run dynamic parameters, p, q, r, s, t, u, v represent optimal lags and ECMt-1 and δ_1 represent the error correction term and the speed of adjustment respectively.

$$\begin{aligned}
 & \begin{matrix} P & q & r & s \\
 & i=1 & i=0 & i=0 & i=0 \\
 & t & u & v & \end{matrix} \\
 \Delta \text{FDIt} = & \psi_0 + \delta_1 \text{ECMt-1} + \sum_{i=1}^P \psi_1 \Delta \text{FDIt-i} + \sum_{i=0}^q \psi_2 \Delta \text{GDPPCt-i} + \sum_{i=0}^r \psi_3 \Delta \text{GFCFt-i} + \sum_{i=0}^s \psi_4 \Delta \text{INFt-i} \\
 & + \sum_{i=0}^t \psi_5 \Delta \text{NATt-i} + \sum_{i=0}^u \psi_6 \Delta \text{OPENT-i} + \sum_{i=0}^v \psi_7 \Delta \text{CREDt-i} + \gamma \text{DUMt} + \epsilon_t \tag{4}
 \end{aligned}$$

3.2 Causality

Long-term relationships require evidence of at least one direction of causation in order to exist (Engle and Granger, 1987). In order to establish cointegration between the variables, but without providing information about the direction of the relationship, the ARDL estimation technique is used in this study. To do this, we estimated a vector autoregressions (VAR) model that is formulated in levels using the Toda and Yamamoto (1995) causality test method. Toda and Yamamoto (1995) maintained that their method is appropriate regardless of whether the VARs may be stationary around a deterministic trend, integrated or cointegrated in a random order. This is in contrast to the conventional F-statistic used to test for Granger causality, which is, however, inapplicable when the time series data are integrated or cointegrated. The estimation technique consists of two steps: first, I run an unrestricted VAR model in level form to identify the lag order selection criterion. This is done after determining the maximum order of integration of the underlying variables. The modified Wald approach was used to test the VAR model for Granger causality after residual and stability tests were performed to ensure the model was stable during the sample period and that the residuals of the estimated model were serially independent.

3.3 Stability and Diagnostic Test

Based on the null hypothesis that the residuals are serially uncorrelated, the study will use the Breusch-Godfrey Serial correlation LM test to determine whether the model's residuals are serially correlated. Additionally, the null hypothesis that the residuals are homoscedastic will be accepted or rejected using the Breusch-Pagan-Godfrey Heteroskedasticity Test.

4. Empirical Findings, Results and Discussion

4.1 Statistical Analysis

Every one of the underlying variables has the expected signs, as the correlation matrix demonstrates. The dependent variable (FDI) and the other regressors negatively correlate with the inflation rate and the binary variable, denoted by INF and DUM, respectively. The degree of infrastructure development and economic openness, as measured by GFCF and OPEN, respectively, have stronger correlations with FDI than any other regressor. Moreover, the lack of multicollinearity is suggested by the low correlation between the explanatory variables, all of which have values less than 0.8.

4.2 Stationarity and Cointegration Tests

Unit root testing is not necessary when using the Bounds testing technique. On the other hand, the underlying variables should not be integrated of order more significant one, as noted by Pesaran *et al.* (2001). I used the Phillips-Perron and Augmented Dickey-Fuller unit root tests to examine the order of integration of the variables to prevent erroneous results and ensure that none of the variables is integrated of order larger than one. I reject the unit root null hypothesis (individual unit root process) at all significance levels because all tests were conducted under first differences, as tables 8 and 9 demonstrate, and because the probability value of each variable is zero. As a result, I come to the conclusion that there are no unit roots in first differences.

This supports our choice to use the limits testing approach for the study's empirical analysis by confirming that each series must be integrated of order zero $I(0)$ or one $I(1)$.

Table 8: Augmented Dickey-Fuller Unit Root test for stationarity using Unit Root Test Statistics

Variables	Unit Root Test Statistics	Critical Values	Probability	Level of Significance (5%)	Order of Integration
FDI	-3.723970	-2.948404	0.0079	5	1(0)
GDPPC	-5.047964	-2.948404	0.0002	5	1(0)
GFCF	-5.641926	-2.951125	0.0000	5	1(1)
INF	-8.367872	-2.951125	0.0000	5	1(1)
NAT	-3.143010	-2.948404	0.0324	5	1(0)
OPEN	-6.563342	-2.951125	0.0000	5	1(1)
CRED	-5.546805	-2.951125	0.0001	5	1(1)

Source: Researcher's calculation using E-views 7.0.

Table 9: Phillips-Perron Unit Root test for Stationarity using Philips-Perron Test Statistics

Variables	Philips-Perron Test Statistics	Critical Values	Probability	Level of Significance (5%)	Order of Integration
FDI	-3.716545	-2.948404	0.0081	5	1(0)
GDPPC	-5.047671	-2.948404	0.0002	5	1(0)
GFCF	-8.425731	-2.951125	0.0000	5	1(1)
INF	-2.827180	-2.948404	0.0648	5	1(0)
NAT	-2.972831	-2.948404	0.0474	5	1(0)
OPEN	-6.550201	-2.951125	0.0000	5	1(1)
CRED	-5.542944	-2.951125	0.0001	5	1(1)
DUM	-5.656854	-2.951125	0.0000	5	1(1)

Source: Researcher's calculation using E-views 7.0.

To determine if the variables are stationary and to verify the sequence of the variables' integration, the researcher uses the Unit Root Test and the Philips-Perron Test Statistics. Because the variables are not integrated in the same order, even with my knowledge of their features, I am not employing the Johansen Cointegration Model. I have variables in this instance that are stationary, significant at Level, and some at First Difference. The variables are significant at different orders and are stationary, according to the statistics obtained from the Unit Root Test and the Philips-Perron Test.

Therefore, the most suitable method to use is the Autoregressive Distributed Lag (ARDL) Model by Parasan *et al.* (2001).

4.3 Maximum Lag and ARDL Model Selection

The maximum order of lags on the initial difference variables, as suggested by the AIC and shown in Table 10 below, must be known in order to estimate equation (2).

This information may be found in the VAR Lag Order Selection Criteria.

Table 10: VAR Lag Order Selection Criteria

Endogenous variables: FDI, GDPPC, GFCF, INF, NAT, OPEN, CRED						
Exogenous variables: C DUM						
Date: 11/10/18; Time: 13:20						
Sample: 1980 2015						
Included observations: 33						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-774.4952	NA	1.34e+12	47.78759	48.42247*	48.00121
1	-696.2278	113.8435	2.51e+11	46.01381	48.87078	46.97509
2	-645.1176	52.65899	3.72e+11	45.88592	50.96497	47.59487
3	-531.4243	68.90503*	3.96e+10*	41.96511*	49.26625	44.42172*
* indicates lag order selected by the criterion						
LR: sequential modified LR test statistic (each test at 5% level)						
FPE: Final prediction error						
AIC: Akaike information criterion						
SC: Schwarz information criterion						
HQ: Hannan-Quinn information criterion						

Source: Researcher's calculation using Eviews 7.0.

4.4 ARDL Model Selection

After the lag selection and equation (2) estimation, the ARDL model was chosen. The ARDL Long Run Form (equation (3)) was jointly estimated by the econometric program Eviews 7.0 and published in APPENDIX 1 and the Bounds test.

The findings are shown as follows:

Table 11: Bound Test

ARDL Bounds Test			
Date: 11/10/18: Time: 14:29			
Sample: 1982 2015			
Included observations: 34			
Null Hypothesis: No long-run relationships exist			
Test Statistic	Value	K	
F-statistic	5.160830	4	
Critical Value Bounds			
Significance	I0 Bound	I1 Bound	
10%	2.45	3.52	
5%	2.86	4.01	
2.5%	3.25	4.49	
1%	3.74	5.06	

Source: Researcher's computation using Eviews 7.0.

4.5 Bounds Test for the Presence of Cointegration

The F-statistic value of 5.160830 is greater than the upper bounds critical values I(1) of 3.52, 4.01, 4.49, and 5.06, respectively. This suggests the rejection of the null hypothesis that there is no relationship between FDI and the explanatory variables at the 1% levels of significance, according to the results of the F-Bounds Test from Table 11 above. Consequently, there is a long-term correlation between our independent and dependent variables.

4.6 Short Run Estimate

The existence of cointegration between FDI and the explanatory variables is a need to evaluate the error correction model to investigate the speed of adjustment. Table 12 below provides evidence that the ARDL model (1,2,2,0,1) correctly captures the behavior of foreign direct investment (FDI) in Sierra Leone, as indicated by the modified R-squared value of 0.687421. Therefore, according to the calculated R-squared value, the regressors account for 95% of changes in FDI, with the remaining 5% being explained by the error term and other factors that were not included in the ARDL model.

Table 12: Cointegration and Long Run

ARDL Cointegrating And Long Run Form				
Dependent Variable: FDI				
Selected Model: ARDL(1, 2, 2, 0, 1)				
Date: 11/10/18; Time: 14:27				
Sample: 1980 2015				
Included observations: 34				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDPPC)	0.176492	0.115249	1.531403	0.1399
D(GDPPC(-1))	-0.259602	0.117632	-2.206908	0.0381
D(GFCF)	0.064882	0.162900	0.398294	0.6943
D(GFCF(-1))	0.620054	0.159459	3.888475	0.0008
D(OPEN)	0.314282	0.086028	3.653268	0.0014
D(CRED)	-0.766866	0.929318	-0.825192	0.4181
D(DUM)	0.343635	4.108105	0.083648	0.9341
C	-12.602562	2.280691	-5.525764	0.0000
CointEq(-1)	-0.898868	0.148006	-6.073178	0.0000
Cointeq = FDI - (0.7715*GDPPC -0.4417*GFCF + 0.2768*OPEN + 1.7091				
*CRED + 2.4063*DUM)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDPPC	0.771503	0.381576	2.021887	0.0555
GFCF	-0.441715	0.525621	-0.840368	0.4097
OPEN	0.276817	0.119526	2.315958	0.0303
CRED	1.709141	1.198187	1.426439	0.1678
DUM	2.406257	3.460570	0.695335	0.4941
R-squared	0.687421	Mean dependent var		2.846495
Adjusted R-squared	0.531131	S.D. dependent var		8.576545
S.E. of regression	5.872703	Akaike info criterion		6.649071
Sum squared resid	758.7501	Schwarz criterion		7.187787
Log likelihood	-101.0342	Hannan-Quinn criter.		6.832789
F-statistic	4.398378	Durbin-Watson stat		2.194012
Prob(F-statistic)	0.001527			

Source: Researcher's computation using Eviews 7.0.

Table 13: ARDL Error Correction Regression

ARDL Error Correction Regression				
Dependent Variable: D(FDI)				
Selected Model: ARDL(2, 0, 3, 3, 0, 2, 3)				
Case 3: Unrestricted Constant and No Trend				
Date: 11/10/18; Time: 17:00				
Sample: 1980 2015				
Included observations: 33				
E CM Regression				
Case 3: Unrestricted Constant and No Trend				
Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-16.23134	1.668712	-9.726866	0.0000
D(FDI(-1))	0.232765	0.090055	2.584691	0.0239
D(GFCF)	-0.163071	0.079182	-2.059444	0.0618
D(GFCF(-1))	1.234698	0.13042	9.467122	0.0000
D(GFCF(-2))	0.330534	0.11164	2.960705	0.0119
D(INF)	-0.056627	0.019225	-2.945557	0.0122
D(INF(-1))	-0.012933	0.015986	-0.809021	0.4343
D(INF(-2))	0.10733	0.014124	7.599081	0.0000
D(OPEN)	0.228875	0.043312	5.284301	0.0002
D(OPEN(-1))	-0.197316	0.040722	-4.845444	0.0004
D(CRED)	-3.40189	0.430517	-7.901868	0.0000
D(CRED(-1))	-0.455988	0.586057	-0.77806	0.4516
D(CRED(-2))	2.978663	0.465073	6.404721	0.0000
DUM	-8.596154	1.279139	-6.720266	0.0000
CointEq(-1)*	-1.405088	0.132511	-10.60357	0.0000
R-squared	0.969733	Mean dependent var		0.361962
Adjusted R-squared	0.946192	S.D. dependent var		9.486337
S.E. of regression	2.200497	Akaike info criterion		4.718199
Sum squared resid	87.1594	Schwarz criterion		5.39843
Log likelihood	-62.85028	Hannan-Quinn criter.		4.947076
F-statistic	41.19358	Durbin-Watson stat		2.493546
Prob(F-statistic)	0.00000			
* p-value incompatible with t-Bounds distribution.				
F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	10.70816	10	2.12	3.23
K	6	5	2.45	3.61
		2.5	2.75	3.99
		1%	3.15	4.43
t-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
t-statistic	-10.60357	10	-2.57	-4.04
		5	-2.86	-4.38
		2.5	-3.13	-4.66
		1%	-3.43	-4.99

Source: Researcher's calculation using Eviews 7.0.

The error corer term, shown by Coint(Eq(-1) in table 13, is statistically significant and negative, which is consistent with theory and provides additional evidence of a long-term relationship between FDI and the regressors. The error correction term, with an estimated coefficient of (-1.40), fluctuates over time rather than converges directly to the equilibrium. Nevertheless, the convergence to the equilibrium is not very quick following this process. Previous studies, like Kariuki (2015), have established that the coefficient of the FDI's lag value is positive and statistically significant. This verifies a positive and significant relationship between last year's FDI inflows to Sierra Leone and current FDI inflows at the five percent level, with an increase of one percentage point in the former translating into a gain of 0.23 percentage points in the latter. Remarkably, the short-term estimate supports the expected sign and importance of trade openness, indicating that a one percentage point increase in this variable will result in a 0.22 percentage point increase in FDI net inflows as a percentage of GDP. This finding corroborates the empirical findings of other researches, including Sesay (2015) and Lado (2015). However, we found a statistically significant negative correlation between the lagged value of trade openness and FDI inflows as a percentage of GDP. The estimated outcome indicates that a one percentage point increase in the lagged value of trade openness will result in a 0.20 percentage point drop in the ratio of FDI inflows to GDP. The infrastructure variable's short-term result is similarly negative and significant as the long-term projection. However, for lagged one and two, the infrastructure development variable's coefficient is positive and statistically significant, as predicted. At the five percent threshold, we found that the lagged values of gross fixed capital creation are positive and statistically significant. This outcome confirms what earlier research like Bhattachrya *et al.* (1997) found. This implies that in the near run, *ceteris paribus*, a one percentage point increase in lagged one and lagged two of gross fixed capital formation will result in an increase of 1.23 percentage points and 0.33 percentage points, respectively, in FDI (annually).

The short-run estimate confirms a significant but negative relationship between the two variables, indicating that, in the short run, better financial sector development in Sierra Leone may be associated with lower levels of inward FDI, in contrast to the long-run estimate, which highlighted a positive and significant effect of domestic credit with FDI inflows. Therefore, in the near term, the net inflow of foreign direct investment (FDI) replaces domestic credit in the nation's private sector.

Moreover, the favorable and noteworthy outcome for lagged two aligns with the outcome of the previously described long term estimate. We found the same outcome as in the long-term estimation with regard to macroeconomic instability as measured by the inflation rate. This confirms the results of a few investigations, including those by Lado (2015), Sesay (2015), and Naude and Krugell (2007). At the five percent level, the inflation rate's lagged two value is noteworthy and encouraging. In conclusion, the relationship between foreign direct investment (FDI) and political instability, as measured by a binary variable called Dummy, has a negative sign and statistical significance at the five percent level. This finding is consistent with previous research conducted by Malefane (2007) and Sesay (2015).

4.7 Stability and Diagnostic Tests

Moreover, the favorable and noteworthy outcome for lagged two aligns with the outcome of the previously described long-term estimate. We found the same outcome as in the long-term estimation with regard to macroeconomic instability as measured by the inflation rate. This confirms the results of a few investigations, including those by Lado (2015), Sesay (2015), and Naude and Krugell (2007). At the five percent level, the inflation rate's lagged two value is noteworthy and encouraging. In conclusion, the relationship between foreign direct investment (FDI) and political instability, as measured by a binary variable called Dummy, has a negative sign and statistical significance at the five percent level. This finding is consistent with previous research conducted by Malefane (2007) and Sesay (2015).

Table 14: Breusch-Godfrey Serial Correlation LM Test

F-statistic	1.337116	Prob. F(8,14)	0.3030
Obs*R-squared	14.72635	Prob. Chi-Square(8)	0.0647

Source: Researcher's computation using Eviews 7.0.

However, under the null hypothesis that the residuals are homoscedastic, the heteroskedasticity test was based on the Breusch-Pagan-Godfrey heteroskedasticity test. We can conclude that the residuals are homoscedastic based on the estimated result in Table 15, since the F-statistical probability value of 0.4266 indicates that we will not be able to reject the null hypothesis.

Table 15: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.069148	Prob. F(11,22)	0.4266
Obs*R-squared	11.84402	Prob. Chi-Square(11)	0.3755
Scaled explained SS	15.45534	Prob. Chi-Square(11)	0.1626

Source: Researcher's computation using Eviews 7.0.

The third and final test is the autocorrelation test to know whether the variables are autocorrelated.

Table 16: Autocorrelation Test

Date: 11/10/18 Time: 14:48						
Sample: 1980 2015						
Included observations: 34						
Q-statistic probabilities adjusted for 1 dynamic regressor						
Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob*
. * .	. * .	1	-0.114	-0.114	0.4828	0.487
. .	. .	2	0.001	-0.012	0.4829	0.785
*** .	*** .	3	-0.383	-0.390	6.2859	0.098
. **	. **	4	0.333	0.290	10.805	0.029
. .	. *	5	0.072	0.121	11.026	0.051
. .	. * .	6	0.029	-0.118	11.063	0.086
** .	. .	7	-0.224	0.003	13.334	0.064
. *	. *	8	0.135	0.139	14.190	0.077
. *	. .	9	0.092	0.017	14.601	0.102
. *	. .	10	0.076	0.006	14.898	0.136
. .	. *	11	-0.052	0.153	15.041	0.181
. * .	. * .	12	-0.099	-0.137	15.589	0.211
. .	. .	13	0.048	-0.019	15.724	0.264
. .	. .	14	-0.030	-0.022	15.779	0.327
. * .	** .	15	-0.085	-0.233	16.247	0.366
. .	. .	16	-0.012	0.063	16.257	0.435

Given that nearly all of the p-values are not significant, the test result demonstrates the absence of autocorrelation. In summary, the results of the diagnostic tests clearly show that the ARDL model is free of functional form errors, serial correlation, heteroskedasticity, and non-normality of the residuals.

4.8 Toda-Yamamoto Modified Wald Granger Causality Test

The residuals of the estimated model were proven to be serially independent once the order of integration and maximum optimal lag selection were determined. This is because, as Table 17 demonstrates, we are unable to reject the null hypothesis that there is no serial correlation at lags 1, 2, 3, and 4.

Table 17: VAR Residual Serial Correlation LM Tests

Null Hypothesis: no serial correlation at lag order h		
Date: 11/10/18; Time: 16:00		
Sample: 1980 2015		
Included observations: 34		
Lags	LM-Stat	Prob
1	60.41294	0.1271
2	56.26964	0.2214
3	52.36737	0.3447
4	46.82563	0.5617

Source: Researcher's calculation using Eviews 7.0.

The results of the Toda–Yamamoto Granger causality test is presented in Table 17 above, from which we can conclude that there is an evidence of Granger causality.

5. Summary

As said in the introduction, this study was to evaluate the possible factors that influence foreign direct investment (FDI) in Sierra Leone, including the steps the government took to encourage FDI inflows. The study makes use of annual time series data covering the years 1980–2015 in order to accomplish this purpose. Additionally, and in accordance with econometric theory, the time series features of the underlying variables aside from the binary one were investigated before the model was estimated by using the Philipps-Perron unit root test and the Augmented Dickey-Fuller test to determine whether the variables were stationary. We infer that there is no unit root in the first differences as both tests were performed under the first difference, and each series has a probability value of zero. As a result, each series needs to be integrated of either order $I(0)$ for zero or $I(1)$ for one. The study uses the bounds testing (ARDL) technique to cointegration in order to examine the long run and short run relationships between FDI and the explanatory variables after the unit root tests, based on its results. This method is appropriate when there is a mixture of $I(0)$ and $I(1)$ variables, but none are $I(2)$. A long-term association was found through the empirical study of this technique, and the expected negative and significant effect of the error correction term with FDI further supported this relationship.

6. Recommendations

Starting with the noteworthy correlation between the ratio of foreign direct investment inflows and domestic credit to the private sector, it illustrates the importance of financial sector development in luring foreign investment. Therefore, in order to support investment and economic growth, it is essential to implement financial sector reforms that enhance loan delivery and accessibility to this industry.

- In light of this, regulations ought to incorporate steps that facilitate the creation of financial institutions, thereby expanding small and medium-sized enterprises' access to capital. This is particularly important in rural areas where financial services are scarce.
- In a similar vein, private sector restructurings aimed at bolstering creditor rights, managing commercial contracts, and establishing the necessary legal framework should be implemented. Furthermore, given the importance of the Sierra Leone Stock Exchange in supplying medium- and long-term funding for investments, its duties ought to be enhanced. In order to secure long-term financing for the private sector, the government of Sierra Leone must also encourage financial institutions to provide alternative forms of services (i.e., substitutes for loans). Other moderate policies that would facilitate investment include opening up the nation's financial systems to international markets.

- In this analysis, I also came to the conclusion that there is a strong and negative association between the inflation rate and inward FDI. The monetary authorities should implement policies aimed at combating excessive inflation since it tends to reduce aggregate demand and investment spending, and an increase in this final variable is linked to a comparable movement in interest rates. In order to promote inward FDI, the lending rate should also be lowered. This is because a high level of FDI may raise borrowing and production costs, which would lower demand for investment.
- Simultaneously, the correlation between the degree of potential investors' familiarity with foreign markets and the capital they are willing to commit to investing there is underscored by the positive and noteworthy impact of the lagged value on FDI. In addition, it suggests that because there is little information accessible regarding the locational advantages of the host nation, foreign investors would be more inclined to make investments in a nation where such activities have a history. As a result, Sierra Leone's current level of foreign investment has the potential to draw in more in the future.
- Regarding this, the government should take steps to keep current investors in the nation in addition to formulating and implementing policies aimed at luring in new ones. Since the majority of these investors are involved in cross-border trading, and since Sierra Leone is not ranked favorably in this regard according to international doing business rankings, the actions taken should also be directed toward enhancing the nation's performance in this regard. This will ultimately benefit the current investors who are involved in cross-border trading.

5.1 Conclusion

In conclusion, steps should be taken to prevent the issue of tax evasion by foreign investors and further ensure a proper management of revenue received from natural resources. As of right now, no university in Sierra Leone offers a course on natural resources management. Consequently, it is important to recognize the value of and find solutions for conserving the nation's natural resources. The marine sector makes up around 10% of the nation's GDP, according to economic data. Nevertheless, given the sector's enormous potential, we think that contributions to the nation's development goals could be significantly increased if a suitable policy was developed and backed by a legal mandate that would describe and guide its operations.

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Authors' Contributions

AMA: developed the concept, literature survey, and manuscript review design, HJ: developed the concept, design, literature survey, manuscript review, MMA: developed the design, data collection, literature survey, manuscript review.

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